VWR INTERNATIONAL

KATALOG CHEMIKÁLIÍ VWR

2014-2016

CHEMIKÁLIE | REAGENCIE | STANDARDY | MIKROBIOLOGICKÁ MÉDIA

pro laboratoře a výrobu

OBJEDNÁVÁNÍ U VWR INTERNATIONAL JE …

RYCHLÉ A SNADNÉ

Naše zákaznické centrum

Otevřeno pondělí až čtvrtek od 07:00 do 17:00 a v pátek od 07:00 do 15:00.

Na telefonním čísle +420 321 570 321 můžete:

- provést objednávku
- sledovat stav vaší objednávky a detaily doručení
- zadat požadavek na cenovou poptávku
- zjistit ceny

Fax: +420 321 570 320

Email: info@cz.vwr.com

Adresa: VWR International s.r.o., Pražská 442,
281 67 Stříbrná Skalice, Česká republika

Online: http://cz.vwr.com

Technický servis

V sekci technického servisu najdete množství odborných tabulek a odpovědí na často kladené otázky (FAQs). Pokud zde nenajdete vhodné řešení, naši odborníci vám rádi pomohou s technickou specifikací výrobků a odpoví vám na otázky ohledně bezpečnostních a zdravotních aspektů, faktorů týkajících se životního prostředí apod.

Tel: +420 321 570 321
+420 571 116 700

Fax: +420 321 570 320

Email: info@cz.vwr.com

Web: http://cz.vwr.com

Bezpečnostní listy (BL): http://cz.vwr.com

Certifikáty o analýze (CoA), Specifikace (CoS): http://cz.vwr.com

Další certifikáty nebo požadavky:
Pokud budete k používání našich VWR produktů potřebovat jiná osvědčení, kontaktujte nás na adrese: info@cz.vwr.com nebo eu.notification.service@eu.vwr.com

Více než 1000 nových produktů

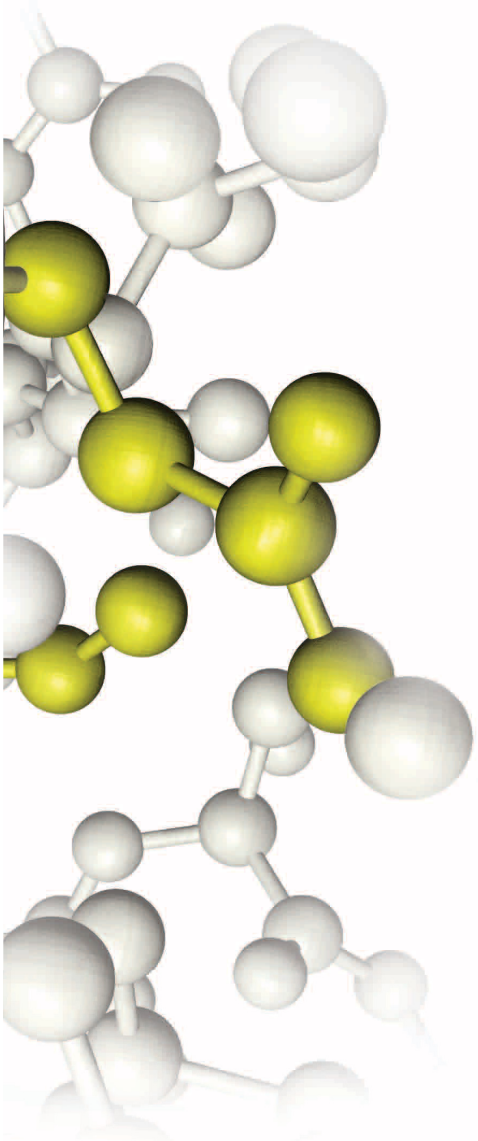
- Nové roztoky pro chromatografii, spektroskopii a Life science
- Standardy pro základní kontrolu kvality včetně měření zabarvení, UV-Vis a konduktivity
- Zcela nová řada dehydrovaných kultivačních médií
- Detergenty s vynikajícími čisticími vlastnostmi, šetrné vůči životnímu prostředí
- Produkty pro mikroskopii Q Path
- Produkty AMRESCO®

... a mnoho dalších již osvědčených produktů!

JAK NEJLÉPE POUŽÍVAT KATALOG?

**Produkty řady AMRESCO® nemusí být k dispozici ve všech zemích. Kontaktujte, prosím, svého obchodního zástupce společnosti VWR International s.r.o.*

RYCHLÉ HLEDÁNÍ, TŘÍDĚNÍ A OBJEDNÁVÁNÍ CHEMIKÁLIÍ



VWR Building Blocks Portal
POWERED BY eMOLECULES

Portál VWR Building Blocks řízený programem eMolecules šetří váš drahocenný čas, který můžete věnovat výzkumu. Při používání tohoto portálu jste schopni zrychlit hledání a zároveň zefektivnit proces dodání požadovaného zboží

Data o VWR produktech, servisních řešeních + data z databáze eMolecules se spojují dohromady k zajištění efektivnějšího vyhledávání, třídění a objednacího procesu, abyste se mohli plně soustředit na svůj výzkum.

- Přístup k 650 000 chemikálií pomocí www.vwr.com.
- Struktura, podobnost nebo přesné vyhledávání; nebo můžete použít SD, SMILE, chemický název, číslo CAS, číslo MDFD apod.
- Ceny a dostupnost v reálném čase.
- Spolehněte na naši expertízu shod DOT a DEA.
- Důsledné ověření dodavatele chemikálií a rychlý obrat zásobování
- Pomocí tohoto vyhledávače můžete zadat své požadavky na zásobování do VWR nákupního košíku.

Procesy VWR, podpůrného týmu eMolecules a sledovacího online systému jsou harmonizovány, čímž je zaručeno, že vaše objednávka bude doručena ve stanovený čas a přesně dle vašich požadavků.

Vezměte prosím na vědomí, že tento portál nemusí být dostupný ve všech zemích. Více informací vám poskytne váš obchodní zástupce firmy VWR International s.r.o.

WELCOME TO THE VWR CHEMICAL CATALOGUE FOR LABORATORIES AND PRODUCTION

The brands that make up the portfolio in this catalogue have in excess of one hundred years of heritage in seeking to make scientists lives as easy and cost effective as possible. Working with our customers, our goal is clear - to make VWR Chemicals your first choice, whatever your application, for both quality and value. Using customer feedback, we're proud to be able to offer:

- **More than 6000 products covering all the basic reagents you need for analysis and research**
- **Multiple grades ensuring the right quality for each application**
- **Laboratory and production pack sizes**
- **98% of the range offered from stock in Europe for fast delivery**

VWR continues to invest through both development and the acquisition of market leading laboratory and life science companies such as AMRESCO®, United Biochemicals, Anachemia and LABOnord increasing our manufacturing capabilities. This enables us to continue to expand our product choices, production capacity, logistic capabilities and levels of service.

We never lose sight of the fact that we need to deliver all this in full compliance with the European REACh directive plus the Global Harmonised system of hazardous chemical labelling and other legislation, as it arises. VWR has also invested heavily in quality improvement systems and process excellence and we will continue to demonstrate our commitment to sustainability.

There's lots of information on all these topics including packaging and labelling, safety and handling as well as details of how to use this catalogue in the pages that follow.

We hope you find the VWR chemical catalogue a useful tool in your laboratory and welcome your comments and suggestions for improvements to any aspect of our range or service. Simply contact your local VWR sales office.

Because... together, We Enable Science

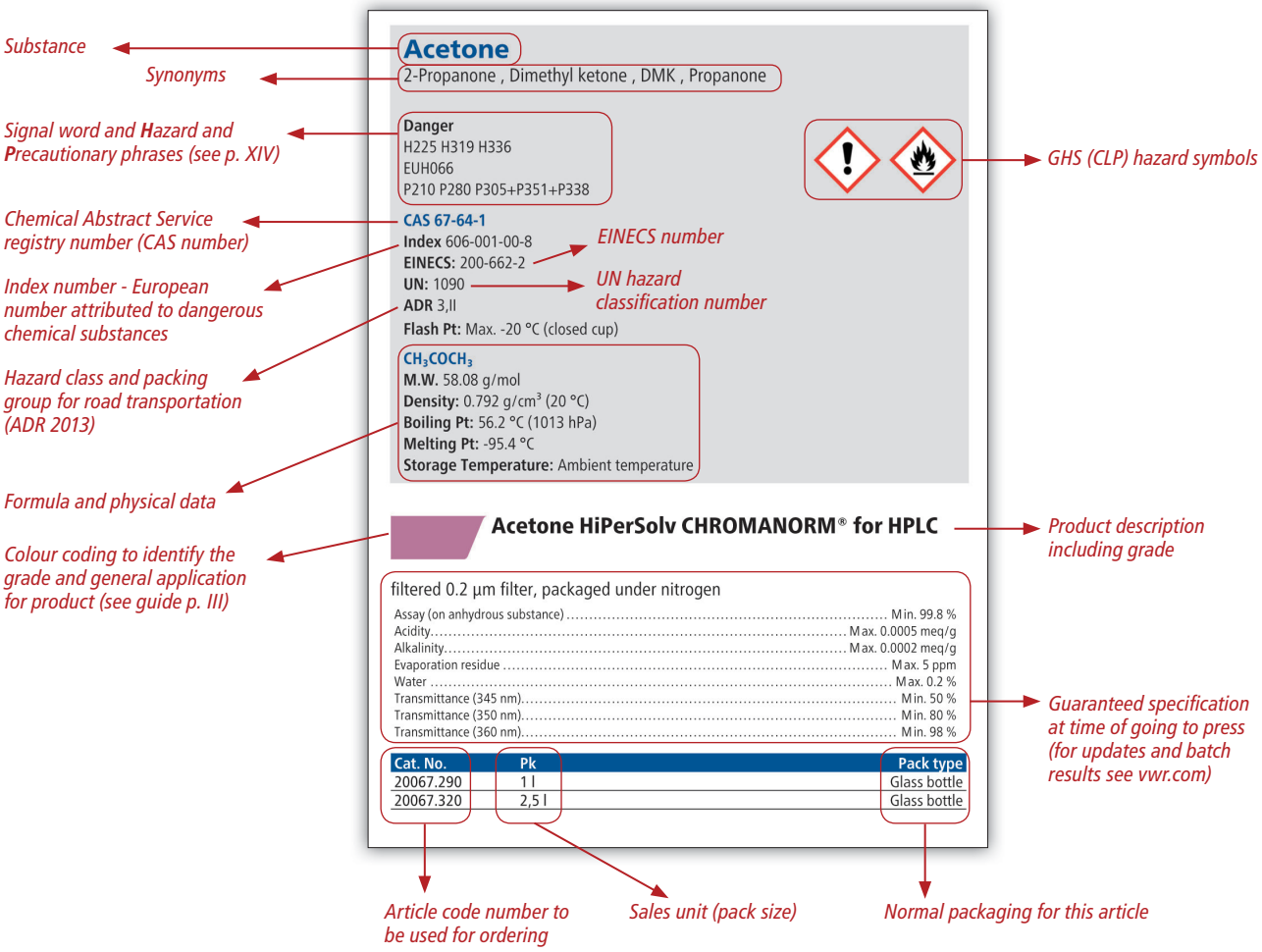
The VWR Collection instruments, equipment and consumables catalogue Full of products offering top performance and great value - whatever your application or budget!

Biochemicals and kits for research in DNA, RNA, protein, cell culture and histology. Expect superior performance from AMRESCO®'s family of products.

May not be available in all countries. Please check with your local VWR sales office or distributor.

Contact your local VWR sales office or distributor or request your copy at vwr.com

HOW TO USE THE CATALOGUE



For latest list prices please check vwr.com

Help us to help you

- Please quote your customer (or delivered to) number when ordering
- If you need to follow up phone orders by fax or post, please clearly mark them "Confirmation Order"
- Please quote our catalogue numbers in full when ordering
- Clearly state the quantity required

Thank you

GRADE SELECTION GUIDE

Colour coded grades to help you select the most appropriate product for your application.

Colour	Grade/quality	Main applications/characteristics
	HiPerSolv® CHROMANORM®	HPLC: LC-UV, LC-MS and preparative applications
	PESTINORM®	GC/GLC: ECD, PND, GC-MS applications including pesticide residue analysis
	Spectrosol® / SPECTRONORM	Spectroscopy
	ARISTAR® / NORMATOM®	High purity solvents, acids, reagents and standards for trace analysis (IC, ICP, ICP-MS)
	Deuterated and anhydrous solvents	NMR spectroscopy, organic synthesis
	Peptide synthesis solvents	Peptide synthesis
	AnalaR® NORMAPUR® ACS Reag.Ph.Eur.	Analytical grade reagents for the pharma industry, ACS standards and Reag.Ph.Eur. specifications
	AnalaR® NORMAPUR®	Analytical grade reagents and standards
	AVS® TITRINORM® / ConvoL® NORMADOSE®	Ready to use/concentrated solutions of analytical reagents for volumetric titration and calibration
	Reagents Ph.Eur.	Range of standards and solutions specified in the Ph.Eur. for laboratory use
	Standards	AAS, ASTM and Ph.Eur. colour standards, hydrocarbon oil index, conductivity, UV-Vis
	Pharmacopoeia grade product	Range of chemicals, in compliance with the European, US or other Pharmacopoeia as indicated by the specification for each product
	GPR® RECTAPUR®	Reagents for general laboratory use
	Labwash®	Cleaning products, for laboratory applications
	TECHNICAL, TechniSolv®	Reagents with limited specification for general laboratory use
	Indicator papers, strips, rolls, dyes including Dosatest® and Rota®	Test and pH papers dyes, dry and in solution
	Electran®	Electrophoresis reagents
	Molecular biology including AMRESCO®*	Reagents specified for use in molecular biology applications including auxiliaries like silica gel
	For biochemistry including AMRESCO®*	Biochemicals and enzymes
	For microbiology	Prepared culture media for microbiological applications

***For more details on AMRESCO® products see overleaf**

	Q Path	For cytological and histological use
	Gurr	Stains and dyes for microscopy
	Products for diagnostic work with tissue specimens	Reagents for classical haematology, cytology and histology
	For environmental analysis	Powder pillows and reagents for environmental applications

In addition, the catalogue contains well known brands such as:

- **BASF VLSI/ULSI Selectipur®, electronic chemicals**
- **Dow Corning® silicones (in small packs)**
- **Rhodorsil® silicones**
- **Amberlite® ion exchange resins**
- **Kjeltabs® catalysts from Thompson & Capper**
- **CHAMELEON®, silica gels for desiccation (a registered trademark from INEOS silicas, manufactured under licence by OKER-CHEMIE GmbH)**

Please note all these brands may not be available in all countries. Please check with your local VWR sales office or distributor.

WOW! OVER 1000 NEW PRODUCTS, THESE ARE SOME OF THE HIGHLIGHTS ...

AMRESCO® products

Biochemicals and kits for research in DNA, RNA, protein, cell culture and histology. Expect superior performance from AMRESCO®'s family of products.

There are hundreds of the best selling AMRESCO® brand products in this catalogue. As well as the red colour coding you will also spot the AMRESCO® logo for easy reference.

VWR AMRESCO CHEMICALS

pure science | **quality in action**

precise | **innovation in focus**

performance | **possibilities delivered**

- **EZ-Vision®**
- **NEXT GEL®**
- **RiboZol™**
- **Rapid Western kits**
- **Ready PCR Mix**
- **HistoChoice®**
- **Antibiotics, reagents, buffers and more**

Please note these products may not be available in all countries, check with your local VWR sales office or distributor.

AMRESCO® GRADE GUIDE	
Grade	**Main applications/characteristics**
ACS	Conforms with specifications and procedures outlined in the American Chemical Society
Biotechnology	Suitable for molecular biology applications
Conjugation	Suitable for enzyme conjugation
Electrophoresis	Suitable for electrophoresis applications
FCC	Conforms with specifications and procedures outlined in the Food Chemicals Codex
High Purity	Superior quality where there are no published standards
PFGE	Suitable for pulse field gel electrophoresis
Proteomics	Suitable for proteomic research applications
Reagent	High purity materials meeting the specifications noted in the product description
RIA	Suitable for ELISA or other immuno-based applications
Sequencing	Suitable for use with automated capillary sequencing equipment
Tissue Culture	Suitable for tissue culture applications
Ultra Pure	Purity level exceeding the various monograph grades
USP	Product is tested to USP specifications

First for Trace Analysis

From the most exacting sample preparation with NORMATOM® high purity acids to ARISTAR® ICP/ICP-MS and AVS® TITRINORM® AAS standards, VWR are able to offer a comprehensive trace analysis package.

In this catalogue, we've increased your choice:

- More than 40 new elements for AAS including 100 ml pack sizes
- New range of ICP multi-element standards in response to application trends

All backed by our extensive Certificates of Analysis for specific batch results – not typical analyses.

If you don't see what you want then we also have a customised standard production service available in many countries too. Contact your local VWR sales office or distibutor for details and to request our trace analysis brochure.

'ALL YOU NEED' FOR CHEMICAL ANALYSIS

- **Sampling**
- **Sample preparation**
- **Electrochemistry**
- **Chromatography**
- **Physical measurement**
- **Spectroscopy**
- **Special applications**
- **Safety, hazard and waste management**

If you're a chemist – this guide is a must!

Contact your local VWR sales office or distributor or order from vwr.com*

**May not be available in all countries.*

WOW! OVER 1000 NEW PRODUCTS, THESE ARE SOME MORE OF THE HIGHLIGHTS ...

New solvents

The HiPerSolv® CHROMANORM® range now includes HPLC solvents for preparative applications. The high purity of these products, especially the low non volatile residue content, ensures optimum conditions and impurity-free preparations.

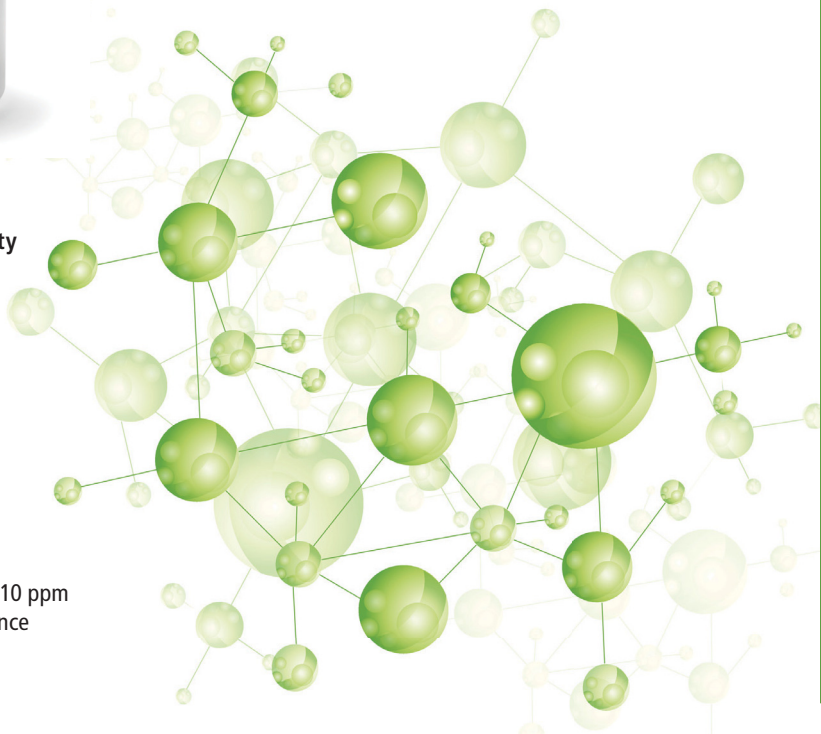
Acetonitrile Super Gradient grade Reag.Ph.Eur. HiPerSolv® CHROMANORM® is one of our latest additions to the growing range of products specified for HPLC analysis in pharmaceutical applications.

The latest for synthesis

Eight new solvents have been introduced with a quality suitable for peptide synthesis:

- **N,N-dimethylformamide**
- **Ethyl acetate**
- **N,N-diisopropylethylamine**
- **Hexafluoroisopropanol**
- **Methanol**
- **N-Methylpyrrolidone**
- **Tetrahydrofuran**
- **Trifluoracetic acid**

Extremely low water content, evaporation residue less than 10 ppm and a guaranteed low amine content ensure a top performance from these products that sit alongside our very successful anhydrous solvent range.



Spotlight on spectroscopy

20 new SPECTRONORM® solvents for spectroscopy in a choice of pack sizes (1 and 2,5 l for the majority)

UV-Vis standards (available in bottles or sealed cuvettes) - ready to use, with no handling or waste issues. Prepared gravimetrically on a weight/weight basis, these NIST traceable standards are compatible with all spectrophotometers. The concentration is verified using high performance spectrophotometers calibrated in an ISO guide 34 registered laboratory using standards traceable to NIST standards.

Colour standards – designed for use in ASTM analytical methods for calibration and QC. Produced in accordance with ASTM methods (D1500, D6045, D1209) and supplied in tamper evident bottles.

Gardner, Saybolt, Platinum-Cobalt, Hazen and APHA standards are also available, see under colour standard solutions.

Environmental management

VWR continues to strive to reduce the environmental impact of essential chemical products. We have introduced an innovative range of solvents offering safer, kinder alternatives to other more common solvents for some applications. (See under green solvents)

In this catalogue we present the new range of Labwash® Premium cleaning products for powerful cleaning of labware either manually or by machine with biodegradable components.

For phenolphtalein titrations we offer a much safer, less toxic product - O-Cresolphtalein 2% in 70% ethanol with a similar pH range and a clear transition from colourless to purple/red.

A range of dehydrated microbiology culture media in compliance with ISO standards and the International Harmonised Pharmacopoeia

This new addition to the VWR microbiological culture media portfolio complements the extensive ready to use media range. Ideal for a wide variety of applications in many different industries including pharmaceutical, cosmetic, food, dairy, environment and water control. Produced using high quality raw materials and subject to strict quality controls in a GMP type environment. Raw materials are selected in compliance with the required standards and the finished product is:

- Compliant with International standards, such as ISO and Pharmacopoeia
- Available in practical 500 g bottles
- Available in standard formulations and animal-free
- Custom products available

Documentation
Available for download from our website vwr.com for all dehydrated culture media and ingredients:

- Technical Data Sheets (TDS)
- Certificate of Analysis (CoA) in compliance with ISO 11133-2 standard
- Material Safety Data Sheets (MSDS)

All microbiological products are shown in the 'Microbiology' section of this catalogue.

Excelling in electrochemistry

Secondary buffer standards
Traceable to NIST, DIN 19266 and IUPAC, ISO 17025 compliant and mostly accurate to ±0,010 pH units (except pH>10 with ±0,050 pH units). Available in 500 ml plastic bottles.

VWR® Chemicals NEW coloured dosing bottles
Coloured solutions enable easy distinction between different pH solutions. These innovative twin neck dosing bottles reduce contamination risk and you can measure directly from the pack without needing other containers. They are ideal for field work and traceable to SRM from NIST.

Conductivity standards – even more products have been added to this range making it one of the most complete, if not, the most complete range on the market – even in the ultra-low range.

BALANCING PEOPLE, PLANET AND PERFORMANCE

Quality, environmental, health, safety, security and sustainability policies for all European operations.

Quality and process excellence

VWR was the first major European laboratory distribution supplier to achieve triple certification to the International Standards:

- Quality – ISO 9001:2008
- Environment – ISO 14001:2004
- Health and safety – OHSAS 18001:2007

Our certification for the whole of our laboratory supplies business gives customers confidence that a third party certification body regularly audits us; checking how we organise our processes and the human/technical factors that could affect quality and the environment. This means our customers can be sure that the service we provide is of the highest quality. VWR works continually on enlarging the scope of our certification and, in addition, now holds certifications for:

- ISO/IEC 17025:2005 for services in several countries and for pipette calibration services used across Europe
- ISO 13485:2003 for manufacturing of consumables for pathology and cytopathology labs

The current scope of our certification

Procurement, marketing, storage, distribution and sales of chemicals, consumables, laboratory equipment, furniture and laboratory information systems. Blending, filling, analysis and packaging of chemicals. Regeneration of resins. Manufacture of laboratory glass components. Installation, maintenance, validation, calibration and repair of laboratory equipment. The supply of training services.

Celebrate sustainability

VWR recognises that building sustainable business practices to enhance the value of the company is in the best interest of our company, our associates, our suppliers, our customers and our community. We also understand that our customers have sustainability initiatives and VWR is committed to helping them achieve their sustainability goals.

At VWR, we are approaching sustainability to meet the three primary goals as defined by the UN World Commission on Environment and Development:

- Social Impact (People)
- Environmental Protection (Planet)
- Economic Growth (Performance)

Every area of our business is measured against these principles. From the choice of materials to produce this catalogue and the environmental credentials of its printers, to the global compliance of VWR companies with the Sarbanes-Oxley act of 2002 ensuring financial integrity. Our integrated logistics network and award winning e-commerce capabilities help you to support your sustainable business practises from order consolidation to free waste packaging collection*.

If you want to learn more about VWR's approach to sustainability, go to vwr.com and find all the information in the "About VWR" section or contact sustainability@vwr.com.

For quality and certification enquiries email EUQualitySupport@de.vwr.com
For sustainability enquiries email sustainability@vwr.com
For more information go to vwr.com 'About us'

**Free waste packaging collection is not available in all countries. Contact your local VWR sales office for advice.*

VWR, A PARTNER YOU CAN TRUST IN CHEMICAL PRODUCTION AND DISTRIBUTION

VWR is committed to remain the European leader in the distribution of laboratory chemicals. The BDH Prolabo® brand is produced and exclusively distributed by VWR. We continue to invest in our global production facilities, to ensure we will continue to meet all our customer's increasing expectations and requirements.

Some of the ways you benefit from these investments are:

- **VWR is REACh ready with all existing products pre-registered**
- **New labels are conforming to directive (EG) No. 1272/2008 (CLP)**
- **An expanded range of stock giving better service levels**
- **Regular new additions to the range**
- **Better utilisation of our new and expanded production facilities leading to improved price stability**

Production sites are certified according to ISO 9001, ISO 14001 and OHSAS 18001 standards and are regularly audited by our clients with excellent and successful results.

Every week, hundreds of substances are analysed by our independent laboratories. Our staff are experienced analysts and use state-of-the-art techniques (e.g. GC, HPLC, AAS, ICP, UV, IR, titration and pH measurement) to ensure product quality is always assured. VWR analytical services are constantly analysing the methodology used to ensure we remain at the forefront of technological developments in quality control for laboratory chemicals.

MEETING THE CHALLENGE OF SCALE-UP AND MORE

The challenges of production include the scaling up of laboratory processes, processing and production management, personal and product safety. VWR are able to provide support in this environment from raw materials to hygiene control.

We can help you monitor your finished product and intermediates, handle the increasing volumes of materials and manage any effluent output.

Managing a chemical supply chain for customers involved in production has taught us that flexibility and high service levels are standard requirements in this environment. Every day VWR delivers to customers who rely on us to get the right product to them at the right time with the right documentation.

We also have a long history of servicing requests for custom products. The capability to do this is based on our production sites around the world. The approach applied to our BDH Prolabo® brand also goes into our products for production customers, namely good quality materials supplied at a competitive price. VWR offer a wide range of Pharmacopoeia compliant materials, all fully tested and documented to the required standards. All Pharmacopoeia materials are packed in cleanroom environments following the principles of GMP.

If the material or pack size you need is not listed then please contact your local VWR sales office.

Member of

ipec EUROPE

Change control security

If your application with a VWR Pharmacopoeia or custom chemical requires change control please contact VWR and ask to be put in contact with our regulatory department. eu.notification.service@eu.vwr.com.

Customer audits

VWR welcomes audits of our facilities and processes by customers. However, the demand for such events is high, so we ask customers to make such requests several months in advance. Requests should be made through your local VWR organisation by contacting the Quality Manager.

WE CAN DELIVER ... YOUR SPECIFICATION, YOUR PACK REQUIREMENTS AND YOUR TIMESCALE

Your goal is to carry out your research, production or quality control in the most efficient and safe way possible.

Our goal is to provide services and products that will guarantee you can increase your success and productivity.

Ready to use custom products provide the following benefits:
- Increased time to focus on your research
- Guaranteed conformity to labelling and other regulatory requirements
- Increased batch-to-batch reproducibility and accuracy giving more consistent results

How can you get a quotation for a custom product?

- You can find out more and discuss your requirements with our trained chemical specialists by contacting your local VWR sales office
- Access our website at vwr.com and click on Services > Custom made chemicals > Go to link at bottom of web page

VWR can produce for your laboratory and pilot scale production ready to use chemicals and solutions, in conformity with your specification that will allow you to:

- Increase safety for your staff
- Reduce exposure to CMR products (carcinogenic, mutagenic or toxic for reproduction products)
- Reduce your inventory of toxic substances
- Select the material and size of packaging to optimise the safety in your application

Please note, VWR does have minimum order requirements for all custom requests. For more information please contact your local VWR sales office with full details of your requirements.

ENHANCE YOUR PRODUCTIVITY WITH VWR CUSTOM MANUFACTURING SERVICES

ONLINE PACKAGING DATABASE FOR UP TO THE MINUTE INFORMATION

Types of packaging used in this catalogue

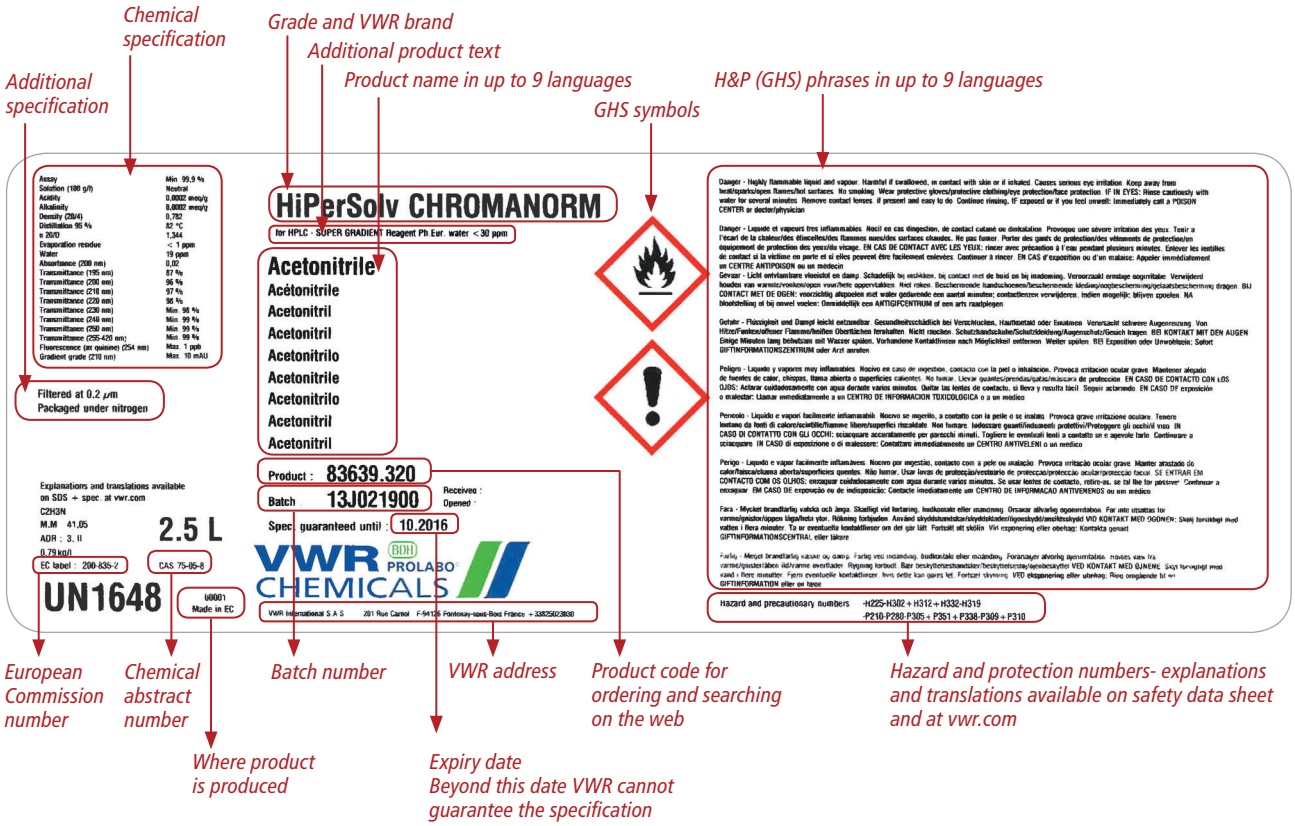
- Aerosol can
- Aluminium bottle
- Aluminium tube
- Bag-in-box (cubitainer)
- Bucket (plastic)
- Cardboard carton
- Fluorinated plastic bottle
- Glass ampoule
- Glass bottle
- Glass bottle for solids
- Glass bottle with plastic safety coating (SAFEBREAK)
- Glass bottle with septum
- Iron box
- Kit packaging
- Metal can
- Metal drum
- Metal drum with liner
- Paper bag
- HDPE bottle
- Plastic ampoule
- Plastic bag
- Plastic bottle for solids
- Plastic container
- Plastic drum
- Plastic tube
- Pouch
- Roll packaging
- Set of items
- Steel drum
- Vial

Each product article in this catalogue has the type of packaging shown against the entry (see page II for more information). All packaging, if used for hazardous goods, is rigorously tested to ensure it meets all UN and ADR requirements.

For each type of packaging we offer a comprehensive technical data sheet. This sheet includes everything from the dimensions, UN certification details and useful accessories for handling the packs such as drum keys etc.

For detailed information on packaging contact your local VWR sales office.

NEW LABELLING CONFORMING TO CLP REGULATION (EC) NO. 1272/2008

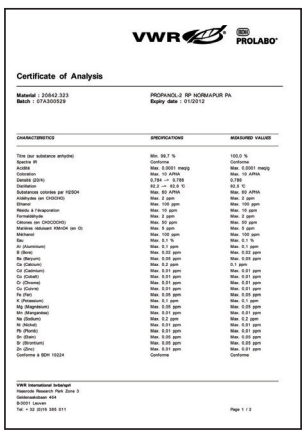


The new multilingual labels are designed to help you find the information you need easily and quickly. They always include an expiry date for unopened and correctly stored product and usually a space for customers to enter the date of receipt and/or when the bottle was first opened. The new labels also comply with CLP requirements. The guaranteed specification of the product appears on the label if space allows. Otherwise the current VWR specifications can be found on vwr.com.

Specifications

The specifications quote maximum permitted levels of impurities, not typical analyses. Certificates of specification and analysis are readily available on the new VWR website.

Please note specifications in this catalogue were correct when the catalogue went to press. The latest specifications are available on vwr.com.


Certificate of Analysis

REACH (EC NO. 1907/2006) AT VWR

REACh (Registration, Evaluation, Authorisation of Chemicals) in brief

REACh, the European Union chemical regulations came into force on June 1st 2007. As an European Commission regulation, REACh replaces national chemical legislation, based on the directives 67/548/EEC and 1999/45/EC and follows specific transitional periods.

From June 2008 pre-registration of 'phase-in substances' began, these substances have been available in the market since 1981 and are listed in the EINECS-List, or in the No-Longer Polymer list (paragraph 8 No. 19).

Pre-registration is required for the application of the transitional arrangement for these substances and for their further availability in the market. Depending on production volume, registration must be done between 2009-2018.

Volume of "phase-in substances"	Registration period allotted
≥1000 t/a or ≥100 t/a environmentally hazardous substances ≥1 t/a CMR** ≥100 t/a R50/53	30/11/2010
≥100 t/a	31/5/2013
≥1t/a	31/5/2018

**CMR: Substances that are carcinogenic, mutagenic or toxic for reproduction

Only substances that have a sufficient data set can be placed on the market in future, while the type and scope of this data set to be provided in in substance dossier for registration is dependent upon the respective production or imported volume (1, 10 or >100 t/a).

Substances that may give rise to long-term, harmful effects, such as CMR, PBT (substances that are potentially persistent, bioaccumulative and toxic), or vPvB (substances that are potentially very persistent and very bioaccumulative), are grouped as Substance of Very High Concern (SVHC). In general, substances with these kind of properties could be listed as SVHC candidates published by ECHA (European Chemicals Agency). These candidates may become subject of authorisation once listed in authorisation list (annex VIX) after evaluation.

Role allocation under REACh

REACh redefines companies' responsibilities - i.e. the chemical manufacturers and importers – as well as those of downstream users.

Producers and importers of substances must both pre-register, and register their substances. The objective of pre-registration was to gain an overview of substances within the EU and their cumulative volume, and to build registration consortia (one substance; one registration).

The downstream user undertakes to check the information of the extended safety data sheet once shared by the producers and to implement the recommended safety management. If the usage of the substance is not indicated in the extended safety data sheet, the downstream user must notify the supplier or ECHA of his specific usage. This, in particular, is important for dangerous substances.

Subsequent registration will be time-consuming, and for evaluated substances from the SVHC candidate list (CMR, BPT, vPvB) not possible. This is why VWR is supporting its suppliers and submitting customers' information regarding the usage of the substance where this is relevant.

All VWR chemicals have been pre-registered under REACh and are subject to the new directive.

VWR is currently working with all our suppliers to ensure they are also REACh compliant.

Safety Data Sheets (SDS)

Changes brought about by REACh have changed the content of the SDS particularly with respect to the order of headings. SDS are expanded with the following information:

- **Registration number, if applicable**
- **Relevant information on the usage of material concerning safety data report**
- **Exposure evaluation and risk management recommendations for hazardous substances**

At present we cannot make any binding statement on which substances will be available in Europe after the full implementation of REACh. This depends upon the volume placed on the market and the quality of the data, but we do not expect major deletions from the range.

If you have further questions regarding REACh and VWR, please do not hesitate to contact us at REACh@eu.vwr.com.

GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION, LABELLING AND PACKAGING OF CHEMICALS (GHS)

All substances must now be packed and distributed according to the new GHS/CLP regulations (European Regulation (EC) No. 1272/2008). However the EU Directive (1999/45/EG) is still applicable for mixtures until May 31st 2015.

After this time all products when produced, must be labelled in conformance with the new CLP regulations. There is an additional two year transition period during which suppliers can sell product, which has been previously packed and labelled before these deadlines.

VWR International, as the global leader in distribution of laboratory chemicals, has a chemical team dedicated to implementing REACh and GHS in order to guarantee the continuity of supply of chemicals to you. More than 105 000 substances were pre-registered in line with REACh regulations and new tools developed and installed to handle the huge amount of information needed.

This team have now finalised the CLP data for all substances and mixtures sold in the VWR chemicals range. Product labels and SDS conforming to the new regulations are now available, although it may be possible for some time that customers will continue to receive and use product with pre-GHS labels.

VWR International situation and implementation plan

On December 16th 2008, the European Parliament published a new regulation on Classification, Labelling and Packaging of substances and mixtures (CLP).

This new regulation implements the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) of the United Nations, which was initiated at the UN Conference on the Environment and Sustainable Development Summit in Rio de Janeiro in 1992.

GHS replaces national regulations and provides a consistent global system for chemical classification and labelling. The goal is to improve safety, health and the environment.

In 2002 GHS was adopted at the World Summit on Sustainable Development in Johannesburg. The participating countries gave a commitment to implement by 2008.

However, the European Authorities realised that there were many links with the REACh regulations planned and that these combined major changes in the regulatory environment could not be done in such a short period of time. The CLP regulation therefore defines extensive transition periods for labelling of chemicals and Safety Data Sheets (SDS), production by chemical manufacturers and re-packers.

HAZARDOUS LABELS

The following pictograms and statements must be added to product labels for all hazardous substances produced by all manufacturers who are distributing these products in the European Union from December 1st 2010 to comply with directive (EG) No. 1272/2008 (CLP).

Hazardous mixtures can continue to be produced until 2015 with labelling that complies with the existing dangerous substances directive.

Signal words

These are words in bold on the label before the Hazard and Precautionary phrases. They describe the relative level of severity of hazards. 'Danger' describes more severe hazard categories 'Warning' describes less severe hazard categories.

GHS01	Explosive		**GHS04**	Gases under pressure		**GHS07**	Harmful / irritant / skin sensitiser	
GHS02	Flammable		**GHS05**	Corrosive		**GHS08**	Carcinogen / Mutagenenic, Toxic to reproduction (CMR) / Specific Target Organ / Toxicity (STOT)	
GHS03	Oxidising		**GHS06**	Acute toxic		**GHS09**	Hazardous to the aquatic environment	

Hazard (H) and EU Hazard (EUH) statements

The Hazard (H) and EU Hazard (EUH) statements describe the nature of the hazards of the substance or mixture, including the degree of hazard.

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive; severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.

H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.

H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360D	May damage the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H360F	May damage fertility.
H360FD	May damage fertility. May damage the unborn child.
H360Fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging an unborn child.
H362	May cause harm to breast fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs.
H373	May cause damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

EUH001	Explosive when dry.
EUH006	Explosive with or without contact with air.
EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH059	Hazardous to the ozone layer.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.

EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary (P) statements

The Precautionary (P) statements describe recommended measures for preventing or minimising adverse effects that can be caused by exposure to the substance or mixture during use or disposal.

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/ hot surfaces. No smoking.
P211	Do not spray on an open flame or other ignition source.
P220	Keep/store away from clothing/ combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P222	Do not allow contact with air.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P230	Keep wetted with…
P231 P231	Handle under inert gas. Protect from moisture.
P232	Handle under inert gas. Protect from moisture.
P232	Protect from moisture.
P233	Keep container tightly closed.
P234	Keep only in original container.
P235	Keep cool.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/ lighting/equipment.
P242	Use only non sparking tools.
P243	Take precautionary measures against static discharge.
P244	Keep reduction valves free from grease and oil.
P250	Do not subject to grinding/shock/friction.
P251	Pressurised container: Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/ vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/ vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P263	Avoid contact during pregnancy/while nursing.

P264	Wash … thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P271	Use only outdoors or in a well ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P282	Wear cold insulating gloves/face shield/ eye protection.
P283	Wear fire/flame resistant/retardant clothing.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301	IF SWALLOWED:
P301 P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P301 P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P301 P330	IF SWALLOWED: Rinse mouth.
P301 P330 P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301 P331	IF SWALLOWED: Do NOT induce vomiting.
P302	IF ON SKIN:
P302 P334	IF ON SKIN: Immerse in cool water/wrap in wet bandages.
P302 P350	IF ON SKIN: Gently wash with plenty of soap and water.
P302 P350 P310	IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTRE or doctor/physician.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P303	IF ON SKIN (or hair):
P303 P361 P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304	IF INHALED:

P304 P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304 P340 P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or doctor/physician.
P304 P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305	IF IN EYES:
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306	IF ON CLOTHING:
P306 P360	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P307	IF EXPOSED:
P307 P310	IF EXPOSED: Immediately call a POISON CENTRE or doctor/physician.
P307 P311	IF EXPOSED: Call a POISON CENTRE or doctor/physician.
P308	IF EXPOSED or concerned:
P308 P313	IF EXPOSED or concerned: Get medical advice/attention.
P309	IF EXPOSED or if you feel unwell:
P309 P310	IF EXPOSED or if you feel unwell: Immediately call a POISON CENTRE or doctor/physician.
P309 P311	IF EXPOSED or if you feel unwell: Call a POISON CENTRE or doctor/physician.
P310	Immediately call a POISON CENTRE or doctor/physician.
P311	Call a POISON CENTRE or doctor/ physician.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P313	Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P315	Get immediate medical advice/attention.
P320	Specific treatment is urgent (see … on this label).
P321	Specific treatment (see … on this label).
P322	Specific measures (see … on this label).
P330	Rinse mouth.
P331	Do NOT induce vomiting.

P332	If skin irritation occurs:
P332 P313	If skin irritation occurs: Get medical advice/attention.
P333	If skin irritation or rash occurs:
P333 P313	If skin irritation or rash occurs: Get medical advice/attention.
P334	Immerse in cool water/wrap in wet bandages.
P335	Brush off loose particles from skin.
P335 P334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P336	Thaw frosted parts with lukewarm water. Do no rub affected area.
P337	If eye irritation persists:
P337 P313	If eye irritation persists: Get medical advice/attention.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342	If experiencing respiratory symptoms:
P342 P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
P350	Gently wash with plenty of soap and water.
P351	Rinse cautiously with water for several minutes.
P352	Wash with plenty of soap and water.
P353	Rinse skin with water/shower.
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P361	Remove/take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370	In case of fire:
P370 P376	In case of fire: Stop leak if safe to do so.
P370 P378	In case of fire: Use … for extinction.
P370 P380	In case of fire: Evacuate area.
P370 P380 P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P371	In case of major fire and large quantities:
P371 P380 P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P372	Explosion risk in case of fire.
P373	DO NOT fight fire when fire reaches explosives.
P374	Fight fire with normal precautions from a reasonable distance.
P375	Fight fire remotely due to the risk of explosion.
P376	Stop leak if safe to do so.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P378	Use … for extinction.
P380	Evacuate area.
P381	Eliminate all ignition sources if safe to do so.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P401	Store …
P402	Store in a dry place.
P402 P404	Store in a dry place. Store in a closed container.
P403	Store in a well ventilated place.
P403 P233	Store in a well ventilated place. Keep container tightly closed.
P403 P235	Store in a well ventilated place. Keep cool.
P404	Store in a closed container.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P407	Maintain air gap between stacks/pallets.
P410	Protect from sunlight.
P410 P235	Protect from sunlight. Keep cool.
P410 P403	Protect from sunlight. Store in a well ventilated place.
P410 P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F..
P411	Store at temperatures not exceeding … °C.
P411 P235	Store at temperatures not exceeding … °C. Keep cool.
P412	Do not expose to temperatures exceeding 50 °C/122 °F.
P413	Store bulk masses greater than … kg lbs at temperatures not exceeding … °C.
P420	Store away from other materials.
P422	Store contents under …
P501	Dispose of contents/container to …
P502	Refer to manufacturer or supplier for information on recovery or recycling.

HANDLING CHEMICALS

Hazardous chemicals

Always take note of the information contained in the safety data sheet and then carry out a risk assessment before handling any dangerous chemical.

Toxic and corrosive materials

Always treat all chemicals as potential poisons and be aware of properties/precautions before use. Avoid direct contact with any chemical and never breathe in solvent vapours. Examples of chemicals giving off vapours permeable to the skin include benzene, aniline, chlorinated compounds; nitrobenzene and phenols.

In cases of skin contact drench with water, then wash with soap and water and seek immediate medical advice. Unpleasant or poisonous compounds should be handled in a fume cupboard. N.B. NEVER mouth pipette any chemical.

Toxic gases

Ensure that all respirators are checked on a regular basis and are in good working order. Before commencing work with toxic gas have appropriate respirators nearby. For cyanides the antidote must be readily available and all laboratory occupants warned of its presence. N.B. liquids contaminated with toxic gas should be purged with nitrogen/air before removal from fume cupboard.

Labelling

All containers must be labelled correctly and securely. Never use unidentified reagents and thoroughly clean old containers.

Explosive materials

Always examine small quantities for the effects of impact and heating before scaling up the experiment. Potential explosives include any azo, diazo, azide, nitro or peroxide compounds and heavy metal salts of organic compounds.

Peroxides

Unsaturated hydrocarbons, aldehydes and ethers are liable to form peroxides in air or in the presence of nitric acid. Solutions should be tested with acidified potassium iodide and the peroxide removed (e.g. with ferrous sulphate solution) before any reaction or process is undertaken.

Mercury

Avoid spillage and vapour build up by working in a tray placed in a fume cupboard. If spilt, collect using any commercially available mercury absorbent or a pipette and remove remainder by applying a paste of equal parts of calcium hydroxide and flowers of sulphur thinned down with water. Allow to dry for 24 hours, remove and send to a waste management company for disposal. Do not dispose of waste in public drains.

Opening bottles

Several compounds often release toxic gases under pressure (hydrochloric acid, bromine, ammonia) when bottles are opened. A face mask, together with any protective clothing assessed to be necessary, should therefore be worn and the bottle opened in a fume cupboard.

Flammable solvents

The quantity stored should be kept to an absolute minimum. Store in a fireproof container away from heat. Always extinguish naked flames and display a warning notice when using solvents.

Static electricity

Organic solvents and gases often develop high electrical charges when being dispensed, therefore all metal drums and gas cylinders, together with the receiver, should be earthed.

Highly reactive substances

Reactions involving, for example, alkali metals and their hydrides should be undertaken behind safety screens with any reagent added in a careful, dropwise manner.

Compressed gases

Always ensure the correct regulator and trap is fitted between glass apparatus and gas cylinder/air bottle. Cylinders should be operated carefully and securely held in stands.

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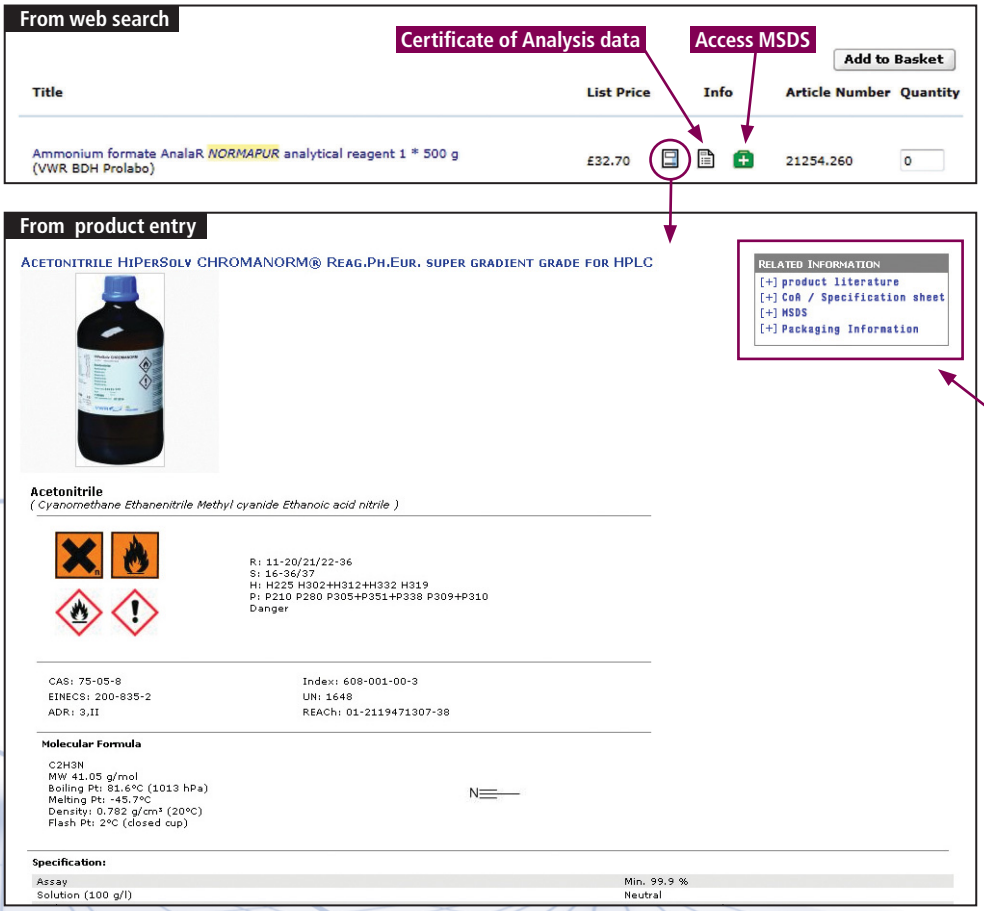
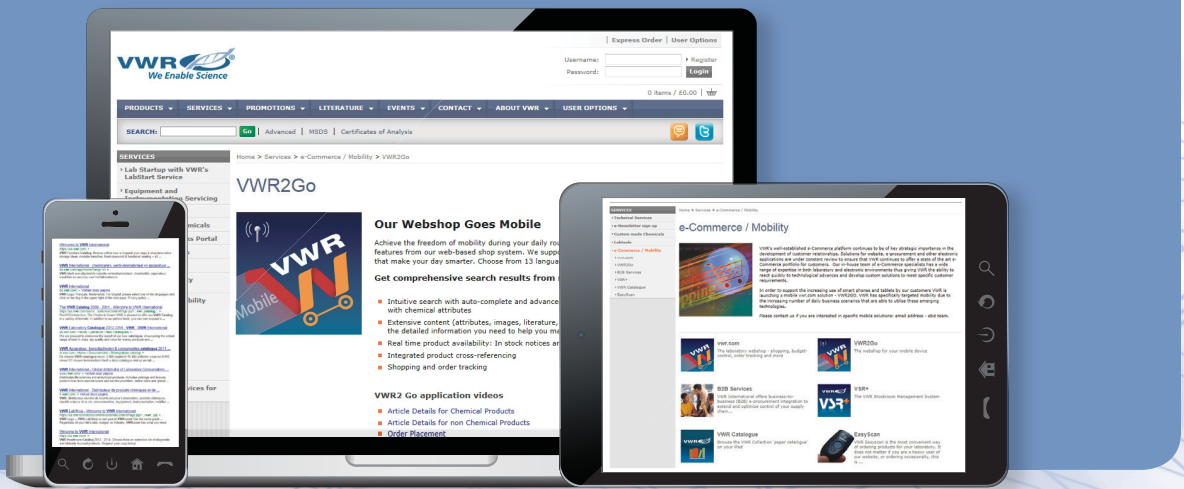


- **Access MSDS**
- **Instructions for use**
  - Technical data sheets
  - Packaging data
  - Other marketing materials can also be found here depending on the product
- **Access to certificates of specification and analysis** (please check your batch number on the label of the product supplied)



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MORE TIME FOR CHEMISTRY

The VWR stockroom management system

VSR+ is an easy to use Stockroom Manager, providing full management and transparency of every aspect of your stockroom.

This web-based warehouse and inventory management system supports both VWR products as well as third-party products from any vendor. VSR+ addresses daily situations such as low visibility of inventory, over or out-of-stock problems for critical products, time intensive ordering and replenishment of stock.

VSR+ is easy to deploy, maintain and can integrate with your current system using built-in configurators allowing you to connect into your environment. Including an activity-based notification and messaging system that informs users, managers and administrators about pending tasks such as orders, picking requests, shipments and other updates.

VSR+ features include:

- Barcode supported location management, goods receiving and picking system
- Suitable for VWR and non VWR products
- Picking part pack quantities
- Billing part pack quantities (VWR products only)
- Automated order management with:
  - Re-order point mechanism
  - Re-order quantities
- Automated order flows
- Standard reporting
- Consumption by cost centre
- Historical by product
- Stock movement
- Inventory counts
- Stock value

Absorption granules

See Spillage absorption granules ..... p. 465

ABTS (Diammonium 2,2'-azinobis[3-ethyl-2,3-dihydrobenzothiazole-6-sulphonate])

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 30931-67-0
EINECS: 250-396-6

$C_{18}H_{24}N_6O_6S_4$
Storage Temperature: 2 - 8°C

ABTS (Diammonium 2,2'-azinobis[3-ethyl-2,3-dihydrobenzothiazole-6-sulphonate]), ultrapure

Substrate for the detection of horseradish peroxidase commonly used in ELISA.

E max @225 nm 48150
E max @342 nm 37400
Free Ammonia ..... 6.5 %
Loss on Drying ..... 2 %
Solubility (5%, Water) ..... PASS
Thin Layer Chromatography 98

Cat. No.	Pk	Pack type
0400-1G	1 g	Glass bottle
0400-10G	10 g	Plastic bottle

ABTS (Diammonium 2,2'-azinobis[3-ethyl-2,3-dihydrobenzothiazole-6-sulphonate]), tablets

Substrate for the detection of horseradish peroxidase commonly used in ELISA. Each 140 mg tablet contains 10 mg of ABTS.

Cat. No.	Pk	Pack type
0895-50T	50	Glass bottle

ABTS substrate liquid

ABTS substrate liquid, ultrapure

Ready-to-use substrate for the detection of horseradish peroxidase. Commonly used in ELISA.

Abs. @ 410 nm ..... ≤ 0.07
Abs. @ Lambda Max ..... 1.2 – 1.5
Lambda Max (nm) ..... 340 – 343
pH @ 25 °C ..... 3.7 – 4.3

Cat. No.	Pk	Pack type
J365-100ML	100 ml	Glass bottle

ACAC

See Acetylacetone p.10

Acenaphthene

1,2-Dihydroacenaphthylene

H411
P273

CAS 83-32-9
EINECS: 201-469-6
UN: 3077
ADR 9,III
Flash Pt: 135 °C (open cup)

$C_{12}H_{10}$
M.W. 154.21 g/mol
Density: 1.024 g/cm³ (20 °C)
Boiling Pt: 279 °C (1013 hPa)
Melting Pt: 90 to 93 °C
Storage Temperature: Ambient temperature

Acenaphthene, extra pure

Cat. No.	Pk	Pack type
122852X	100 mg	Glass ampoule

Acetaldehyde

Ethanal

Danger
H224 H351 H319 H335
P201 P210 P243 P281 P304+P340 P305+P351+P338
P309+P311

CAS 75-07-0
Index 605-003-00-6
EINECS: 200-836-8
UN: 1089
ADR 3,I
Flash Pt: -27 °C

CH_3CHO
M.W. 44.05 g/mol
Density: 0.78 g/cm³ (20 °C)
Boiling Pt: 20.1 °C (1013 hPa)
Melting Pt: -123 °C
Storage Temperature: 2 - 8°C

Acetaldehyde TECHNICAL

Assay ..... Min. 99 %
n 20/D ..... 1.330 to 1.332

Cat. No.	Pk	Pack type
20877.265	500 ml	Glass bottle

CAUTION : Due to the very low boiling point of this product (21°C), cool the bottle in ice before opening.

N-(2-Acetamido)-2-aminoethanesulphonic acid (ACES)

N-(Carbamoylmethyl)taurine

CAS 7365-82-4
EINECS: 230-908-4

$H_2NCOCH_2NHCH_2CH_2SO_3H$
M.W. 182.2 g/mol
Melting Pt: 270 to 295 °C
Storage Temperature: Ambient temperature

N-(2-Acetamido)-2-aminoethanesulphonic acid (ACES), high purity

Abs.@280 nm (5%, Water) 0.02
pH (1%, Water) @25 °C ..... 3.6 - 4.4
pKa @25 °C ..... 6.58 - 6.98
Purity ..... 99.0 %
Water (Karl Fisher) ..... 1.0 %

Cat. No.	Pk	Pack type
0285-100G	100 g	Plastic bottle
0285-1KG	1 kg	Plastic bottle

N-(2-Acetamido)-2-aminoethanesulphonic acid (ACES)

Assay (potentiometric) ..... Min 99 %
pKa (20 °C) 6.9
Absorbance 250 nm (C = 2%, H_2O - 10 mm) ..... 0.1 max. (smooth curve between 230 to 350 nm)
Loss on drying (110 °C) ..... Max 0.2 %
Sulphated ash ..... Max 0.2 %
Sulphates (SO_4) ..... Max 0.005 %
Chloride (Cl) ..... Max 0.05 %
Cu (Copper) ..... Max 0.0005 %
Fe (Iron) ..... Max 0.0005 %
Na (Sodium) ..... Max 0.01 %
Pb (Lead) ..... Max 0.0005 %

Cat. No.	Pk	Pack type
441176C	1 kg	Plastic bottle

N-(2-Acetamido)-2-aminoethanesulphonic acid

See N-(2-Acetamido)-2-aminoethanesulphonic acid (ACES) p.1

Acetic acid

Ethanoic acid

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2789
ADR 8,II
Flash Pt: 38.5 °C

H_3CCOOH
M.W. 60.05 g/mol
Density: 1.05 g/cm^3 (20 °C)
Boiling Pt: 118 °C (1013 hPa)
Melting Pt: 17 °C
Storage Temperature: 15 - 25°C

Acetic acid glacial ARISTAR® for trace analysis

Assay	99.8 to 100.1 %
Freezing point	Min 16.3 °C
Substances reducing dichromate (Cr^{6+})	passes test
Acetic anhydride [$(CH_3CO)_2O$]	Max 0.01 %
Acetaldehyde (CH_3CHO)	Max 2 ppm
Phosphate (PO_4)	Max 0.1 ppm
Chloride (Cl)	Max 0.1 ppm
Al (Aluminium)	Max 0.005 ppm
Au (Gold)	Max 0.02 ppm
Ba (Barium)	Max 0.005 ppm
Bi (Bismuth)	Max 0.05 ppm
Cd (Cadmium)	Max 0.003 ppm
Cr (Chromium)	Max 0.01 ppm
Fe (Iron)	Max 0.05 ppm
Ge (Germanium)	Max 0.02 ppm
In (Indium)	Max 0.01 ppm
Li (Lithium)	Max 0.01 ppm
Mn (Manganese)	Max 0.005 ppm
Na (Sodium)	Max 0.2 ppm
Pb (Lead)	Max 0.005 ppm
Sn (Tin)	Max 0.05 ppm
Ti (Titanium)	Max 0.05 ppm
V (Vanadium)	Max 0.01 ppm
Zr (Zirconium)	Max 0.05 ppm
Colouration	Max 10 HU
Dilution test	passes test
Substances reducing permanganate $KMnO_4$	passes test
Non-volatile matter	Max 5 ppm
Acetone (CH_3COCH_3)	Max 1 ppm
Sulphates (SO_4)	Max 0.5 ppm
Ag (Silver)	Max 0.01 ppm
As (Arsenic)	Max 0.003 ppm
B (Boron)	Max 0.02 ppm
Be (Beryllium)	Max 0.01 ppm
Ca (Calcium)	Max 0.2 ppm
Co (Cobalt)	Max 0.005 ppm
Cu (Copper)	Max 0.003 ppm
Ga (Gallium)	Max 0.01 ppm
Hg (Mercury)	Max 0.002 ppm
K (Potassium)	Max 0.05 ppm
Mg (Magnesium)	Max 0.01 ppm
Mo (Molybdenum)	Max 0.005 ppm
Ni (Nickel)	Max 0.005 ppm
Pt (Platinium)	Max 0.05 ppm
Sr (Strontium)	Max 0.005 ppm
Tl (Thallium)	Max 0.05 ppm
Zn (Zinc)	Max 0.05 ppm

Cat. No.	Pk	Pack type
450013Y	500 ml	Glass bottle SAFEBREAK

Acetic acid 99% NORMATOM® for trace metal analysis

Assay	Min. 99 %
Cl (Chloride)	Max. 1 ppm
SO_4 (Sulphate)	Max. 0.5 ppm
Al (Aluminium)	Max. 1 ppb
Ba (Barium)	Max. 0.5 ppb
Bi (Bismuth)	Max. 0.1 ppb
Cd (Cadmium)	Max. 0.5 ppb
Co (Cobalt)	Max. 0.1 ppb
Cs (Cesium)	Max. 0.1 ppb
Dy (Dysprosium)	Max. 0.1 ppb
Eu (Europium)	Max. 0.1 ppb
Ga (Gallium)	Max. 0.1 ppb
Ge (Germanium)	Max. 0.5 ppb
Hg (Mercury)	Max. 1 ppb
In (Indium)	Max. 0.1 ppb
La (Lanthanum)	Max. 0.1 ppb
Lu (Lutetium)	Max. 0.1 ppb
Mn (Manganese)	Max. 0.5 ppb
Na (Sodium)	Max. 1 ppb
Ni (Nickel)	Max. 0.5 ppb
Pr (Praseodymium)	Max. 0.1 ppb
Rb (Rubidium)	Max. 0.1 ppb
Ru (Ruthenium)	Max 0.5 ppb
Sc (Scandium)	Max. 0.1 ppb
Se (Selenium)	Max. 1 ppb
Sr (Strontium)	Max. 0.5 ppb
Te (Tellurium)	Max. 0.5 ppb
Ti (Titanium)	Max. 0.5 ppb
Tm (Thulium)	Max. 0.1 ppb
V (Vanadium)	Max. 0.5 ppb
Y (Yttrium)	Max. 0.1 ppb
Zn (Zinc)	Max. 1 ppb
Colouration	Max. 10 APHA
PO4 (Phosphate)	Max. 1 ppm
Ag (Silver)	Max. 1 ppb
As (Arsenic)	Max. 0.5 ppb
Be (Beryllium)	Max. 0.1 ppb
Ca (Calcium)	Max. 1 ppb
Ce (Cerium)	Max. 0.1 ppb
Cr (Chromium)	Max. 1 ppb
Cu (Copper)	Max. 0.5 ppb
Er (Erbium)	Max. 0.1 ppb
Fe (Iron)	Max. 1 ppb
Gd (Gadolinium)	Max. 0.1 ppb
Hf (Hafnium)	Max. 0.1 ppb
Ho (Holmium)	Max. 0.1 ppb
K (Potassium)	Max. 1 ppb
Li (Lithium)	Max. 0.1 ppb
Mg (Magnesium)	Max. 0.5 ppb
Mo (Molybdenum)	Max. 0.5 ppb
Nd (Neodymium)	Max. 0.1 ppb
Pb (Lead)	Max. 0.1 ppb
Pt (Platinum)	Max. 0.5 ppb
Rh (Rhodium)	Max. 0.1 ppb
Sb (Antimony)	Max. 0.5 ppb
Sm (Samarium)	Max. 0.1 ppb
Sn (Tin)	Max. 0.5 ppb
Tb (Terbium)	Max. 0.1 ppb
Th (Thorium)	Max. 0.1 ppb
Tl (Thallium)	Max. 0.1 ppb
U (Uranium)	Max. 0.1 ppb
W (Tungsten)	Max. 0.5 ppb
Yb (Ytterbium)	Max. 0.1 ppb
Zr (Zirconium)	Max. 0.1 ppb

Cat. No.	Pk	Pack type
83876.270	500 ml	Plastic bottle
83876.330	2,5 l	Plastic bottle

Acetic acid glacial for HPLC

Assay	Min. 99.9 %
Evaporation residue	Max. 10 ppm
Water	Max. 0.1 %
Transmittance (254 nm)	Min. 5 %
Transmittance (280 nm)	Min. 95 %

Cat. No.	Pk	Pack type
20108.230	250 ml	Glass bottle
20108.292	1 l	Glass bottle

Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.8 %
IR Spectrum	Passes test
Alkalinity	Max. 0.0004 meq/g
Colouration	Max. 10 APHA
Solidification point	16.2 to 16.6 °C
Acetaldehyde	Max. 2 ppm
Evaporation residue	Max. 5 ppm
Heavy metals (as Pb)	Max. 0.5 ppm
Substances reducing Cr^{6+} (as O)	Max. 100 ppm
Cl (Chloride)	Max. 0.5 ppm
PO_4 (Phosphate)	Max. 0.5 ppm
Ag (Silver)	Max. 0.5 ppm
As (Arsenic)	Max. 0.01 ppm
Be (Beryllium)	Max. 0.01 ppm
Ca (Calcium)	Max. 0.2 ppm
Co (Cobalt)	Max. 0.01 ppm
Cu (Copper)	Max. 0.01 ppm
Ge (Germanium)	Max. 0.02 ppm
Li (Lithium)	Max. 0.5 ppm
Mn (Manganese)	Max. 0.01 ppm
Na (Sodium)	Max. 0.5 ppm
Pb (Lead)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.02 ppm
V (Vanadium)	Max. 0.01 ppm
Zr (Zirconium)	Max. 0.02 ppm
Dilution test	Passes test ACS
Substances reducing $KMnO_4$	Passes test
Boiling point	117 to 119 °C
Density (20/20)	1.052 to 1.053
Substances discoloured by H_2SO_4	Max. 150 APHA
Acetic anhydride	Max. 100 ppm
Formate	Max. 0.05 %
Ignition residue (SO_4)	Max. 10 ppm
Water	Max. 0.25 %
NO_3 (Nitrate)	Max. 2 ppm
SO_4 (Sulphate)	Max. 1 ppm
Al (Aluminium)	Max. 0.03 ppm
Ba (Barium)	Max. 0.01 ppm
Bi (Bismuth)	Max. 0.02 ppm
Cd (Cadmium)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.08 ppm
Fe (Iron)	Max. 0.2 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.05 ppm
Mo (Molybdenum)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.01 ppm
Tl (Thallium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
20104.243	1 l	Glass bottle SAFEBREAK
20104.298	1 l	Glass bottle
20104.323	2,5 l	Glass bottle SAFEBREAK
20104.334	2,5 l	Plastic bottle
20104.367	5 l	Plastic bottle
20104.447	20 l	Plastic drum
20104.551	200 l	Plastic drum

Acetic acid glacial analytical reagent, for cryoscopy

Assay	Min. 99.9 %	Colouration	Max. 10 APHA
Solidification point	16.3 to 16.5 °C	Substances discoloured by H_2SO_4	Max. 150 APHA
Evaporation residue	Max. 10 ppm	Ignition residue (SO_4)	Max. 5 ppm
Substances reducing Cr^{6+} (as O)	Max. 50 ppm	Water	Max. 0.1 %
Cl (Chloride)	Max. 1 ppm	NO_3 (Nitrate)	Max. 1 ppm
SO_4 (Sulphate)	Max. 1 ppm	Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.05 ppm	As (Arsenic)	Max. 0.01 ppm
Ba (Barium)	Max. 0.01 ppm	Be (Beryllium)	Max. 0.01 ppm
Bi (Bismuth)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.2 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.08 ppm	Cu (Copper)	Max. 0.1 ppm
Fe (Iron)	Max. 0.3 ppm	Ge (Germanium)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm	Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm	Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.1 ppm	Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm	Ti (Titanium)	Max. 0.1 ppm
Tl (Thallium)	Max. 0.05 ppm	V (Vanadium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.05 ppm	Zr (Zirconium)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
20105.292	1 l	Glass bottle

Acetic acid glacial Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	Clear colourless liquid
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance test	Passes test
Solidification point	Min. 14.8 °C
Reducing substances	Passes test
Cl (Chloride)	Max. 25 mg/l
SO_4 (Sulphate)	Max. 50 mg/l
Fe (Iron)	Max. 5 ppm
Heavy metals (as Pb)	Max. 5 ppm
Residue on evaporation	Max. 0.01 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20102.292	1 l	Glass bottle
20102.320	2,5 l	Glass bottle
20102.463	25 l	Plastic drum

Acetic acid 99-100% GPR RECTAPUR®

Assay	Min. 99.5 %
Solidification point	16.0 to 16.6 °C
Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 50 ppm
Non-volatile residue	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm
Conforms to BDH 27013	Passes test

Cat. No.	Pk	Pack type
20103.295	1 l	Glass bottle
20103.330	2,5 l	Plastic bottle
20103.364	5 l	Plastic bottle
20103.444	20 l	Plastic drum

Acetic acid glacial

Assay	Min. 98 %

Cat. No.	Pk	Pack type
84528.290	1 l	Plastic bottle
84528.360	5 l	Plastic bottle

Acetic acid (≥ 90%)

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2789
ADR 8,II
Flash Pt: 38.5

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 96% AnalaR NORMAPUR® analytical reagent

Assay	Min. 96.0 %	Substances reducing Cr^{6+} (as O)	Passes test
Colouration	Max. 10 APHA	Evaporation residue	Max. 10 ppm
Cl (Chloride)	Max. 1 ppm	SO_4 (Sulphate)	Max. 1 ppm
Ag (Silver)	Max. 0.02 ppm	Al (Aluminium)	Max. 0.05 ppm
As (Arsenic)	Max. 0.01 ppm	Ba (Barium)	Max. 0.01 ppm
Be (Beryllium)	Max. 0.02 ppm	Bi (Bismuth)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.2 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.08 ppm
Cu (Copper)	Max. 0.05 ppm	Fe (Iron)	Max. 0.3 ppm
Ge (Germanium)	Max. 0.05 ppm	K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.01 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.1 ppm
Pb (Lead)	Max. 0.02 ppm	Sr (Strontium)	Max. 0.01 ppm
Ti (Titanium)	Max. 0.05 ppm	Tl (Thallium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 0.05 ppm
Zr (Zirconium)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20099.290	1 l	Glass bottle
20099.324	2,5 l	Glass bottle SAFEBREAK

Acetic acid 90% GPR RECTAPUR®

Assay	89 to 91 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 50 ppm

Cat. No.	Pk	Pack type
20109.295	1 l	Glass bottle
20109.364	5 l	Plastic bottle

Acetic acid (80 - < 90%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2789
ADR 8,II
Flash Pt: 40

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 80% TECHNICAL

Assay	78 to 82 %
Density (20/4)	1.068 to 1.070

Cat. No.	Pk	Pack type
20119.368	5 l	Plastic bottle

Acetic acid (50 - < 80%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2790
ADR 8,II

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 60% TECHNICAL

Assay..... 59 to 61 %

Cat. No.	Pk	Pack type
20127.366	5 l	Plastic bottle

Acetic acid 50%

Assay..... 49.5 to 50.5 %

Cat. No.	Pk	Pack type
20123.363	5 l	Plastic bottle

Acetic acid (25 - < 50%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2790
ADR 8,III

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 32% TECHNICAL

Assay..... Min. 32 %

Cat. No.	Pk	Pack type
20132.364	5 l	Plastic bottle

Acetic acid 30% Reag. Ph. Eur. 1000401

Cat. No.	Pk	Pack type
87758.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Acetic acid (10 - < 25%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7
UN: 2790
ADR 8,III

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 12% Reag. Ph. Eur. 1000402

Cat. No.	Pk	Pack type
87759.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Acetic acid 12%

Assay..... 11.9 to 12.1 %

Cat. No.	Pk	Pack type
20121.366	5 l	Plastic bottle

NEW Acetic acid 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C; real value 0.2 % accuracy)..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
84588.600	60 ml	Plastic ampoule

Acetic acid (< 1.5 mol/l; < 1.5 N)

CAS 64-19-7
Index 607-002-00-6
EINECS: 200-580-7

H_3CCOOH
Storage Temperature: Ambient temperature

Acetic acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy)..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
30010.292	1 l	Plastic bottle

Acetic acid-[D4]

Ethanoic acid-D4

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 1186-52-3
EINECS: 214-693-4
UN: 2789
ADR 8,II
Flash Pt: 39 °C

D_3CCOOD
M.W. 64.02 g/mol
Density: 1.13 g/cm³ (20 °C)
Boiling Pt: 115.5 °C (1013 hPa)
Melting Pt: 16 °C
Storage Temperature: Ambient temperature

Acetic acid-[D4] 99.50 for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.5 %
Water (HDO+D_2O) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
87151.0010	10 ml	Glass bottle

Acetic acid ammonium salt

See Ammonium acetate p.30

Acetic acid butyl ester

See Butyl acetate p.88

Acetic acid cadmium salt dihydrate

See Cadmium acetate dihydrate p.89

Acetic acid calcium salt hydrate

See Calcium acetate hydrate p.91

Acetic acid cobalt (II) salt tetrahydrate

See Cobalt (II) acetate tetrahydrate p.115

Acetic acid dimethylamide

See N,N-Dimethylacetamide p.148

Acetic acid ethyl ester

See Ethyl acetate p.179

Acetic acid lead (II) salt basic

See Lead (II) acetate basic p.264

Acetic acid lead (II) salt trihydrate

See Lead (II) acetate trihydrate p.263

Acetic acid magnesium salt tetrahydrate

See Magnesium acetate tetrahydrate p.272

Acetic acid mercury (II) salt

See Mercury (II) acetate p.283

Acetic acid potassium salt

See Potassium acetate p.370

Acetic acid sodium salt trihydrate

See Sodium acetate trihydrate p.430

Acetic acid sodium salt

See Sodium acetate p.430

Acetic acid zinc salt dihydrate

See Zinc acetate dihydrate p.550

Acetic anhydride

Danger
H226 H302+H332 H314 H335
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 108-24-7
Index 607-008-00-9
EINECS: 203-564-8
UN: 1715
ADR 8,II
Flash Pt: 49 °C

$(CH_3CO)_2O$
M.W. 102.09 g/mol
Density: 1.08 g/cm³ (20 °C)
Boiling Pt: 139.9 °C (1013 hPa)
Melting Pt: -73 °C
Storage Temperature: Ambient temperature

Acetic anhydride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay ..... Min. 98.0 %
Substances reducing $KMnO_4$ ..... Passes test ACS
Colouration ..... Max. 20 APHA
Evaporation residue ..... Max. 30 ppm
Substances reducing Cr^{6+} (as O) ..... Max. 0.03 %
PO_4 (Phosphate) ..... Max. 5 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Fe (Iron) ..... Max. 2 ppm
Pb (Lead) ..... Max. 0.05 ppm
Conforms to ACS ..... Passes test
IR Spectrum ..... Passes test
Boiling point ..... 136 to 142 °C
Substances discoloured by H_2SO_4 .. Max. 100 APHA
Heavy metals (as Pb) ..... Max. 2 ppm
Cl (Chloride) ..... Max. 2 ppm
SO_4 (Sulphate) ..... Max. 5 ppm
Cu (Copper) ..... Max. 0.05 ppm
Ni (Nickel) ..... Max. 0.05 ppm
Zn (Zinc) ..... Max. 0.05 ppm
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
21390.293	1 l	Glass bottle
21390.330	2,5 l	Plastic bottle

Acetic anhydride GPR RECTAPUR®

Assay ..... Min. 96 %
Evaporation residue ..... Max. 100 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 20 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
21389.298	1 l	Glass bottle
21389.367	5 l	Plastic bottle

Acetic anhydride in pyridine

Danger
H225 H311+H331 H302 H314
P210 P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-24-7
EINECS: 203-564-8

$(CH_3CO)_2O$
M.W. 102.09 g/mol

Acetic anhydride 25% in pyridine Reag. Ph. Eur. 1000501

Cat. No.	Pk	Pack type
87760.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Acetone

2-Propanone , Dimethyl ketone , DMK , Propanone

Danger
H225 H319 H336
EUH066
P210 P280 P305+P351+P338

CAS 67-64-1
Index 606-001-00-8
EINECS: 200-662-2
UN: 1090
ADR 3,II
Flash Pt: Max. -20 °C (closed cup)

CH_3COCH_3
M.W. 58.08 g/mol
Density: 0.792 g/cm³ (20 °C)
Boiling Pt: 56.2 °C (1013 hPa)
Melting Pt: -95.4 °C
Storage Temperature: Ambient temperature

Acetone ARISTAR® for trace analysis

Identity	passes test	Assay (by GC)	Min 99.8 %
Colouration	Max 10 HU	specific Resistivity	Min 5 MOhm cm
Water	Max 0.1 %	Non-volatile matter	Max 5 ppm
Acidity (as CH_3COOH)	Max 20 ppm	Free alkalinity (as NH_3)	Max 2 ppm
Heavy metals (as Pb)	Max 0.1 ppm	Aldehydes (CH_3CHO)	Max 10 ppm
Ethanol (C_2H_5OH)	Max 100 ppm	Methanol (CH_3OH)	Max 500 ppm
Oxygen absorbed (O)	Max 2.5 ppm	Sulphates (SO_4)	Max 1 ppm
Chloride (Cl)	Max 0.5 ppm	Ag (Silver)	Max 0.01 ppm
Al (Aluminium)	Max 0.05 ppm	As (Arsenic)	Max 0.01 ppm
Au (Gold)	Max 0.02 ppm	B (Boron)	Max 0.01 ppm
Ba (Barium)	Max 0.005 ppm	Be (Beryllium)	Max 0.01 ppm
Bi (Bismuth)	Max 0.02 ppm	Ca (Calcium)	Max 0.05 ppm
Cd (Cadmium)	Max 0.005 ppm	Co (Cobalt)	Max 0.005 ppm
Cr (Chromium)	Max 0.005 ppm	Cu (Copper)	Max 0.005 ppm
Fe (Iron)	Max 0.02 ppm	Ga (Gallium)	Max 0.01 ppm
In (Indium)	Max 0.01 ppm	K (Potassium)	Max 0.02 ppm
Li (Lithium)	Max 0.01 ppm	Mg (Magnesium)	Max 0.005 ppm
Mn (Manganese)	Max 0.005 ppm	Mo (Molybdenum)	Max 0.005 ppm
Na (Sodium)	Max 0.05 ppm	Ni (Nickel)	Max 0.005 ppm
Pb (Lead)	Max 0.005 ppm	Pt (Platinium)	Max 0.05 ppm
Sb (Antimony)	Max 0.01 ppm	Sn (Tin)	Max 0.02 ppm
Sr (Strontium)	Max 0.005 ppm	Ti (Titanium)	Max 0.02 ppm
Tl (Thallium)	Max 0.01 ppm	V (Vanadium)	Max 0.01 ppm
Zn (Zinc)	Max 0.01 ppm	Zr (Zirconium)	Max 0.02 ppm

Cat. No.	Pk	Pack type
451004L	2,5 l	Glass bottle SAFEBREAK

Acetone HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 0.2 %
Transmittance (345 nm)	Min. 50 %
Transmittance (350 nm)	Min. 80 %
Transmittance (360 nm)	Min. 98 %

Cat. No.	Pk	Pack type
20067.290	1 l	Glass bottle
20067.320	2,5 l	Glass bottle

NEW Acetone SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.2 %
Transmittance (330 nm)	Min. 20 %
Transmittance (340 nm)	Min. 85 %
Transmittance (350 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84700.290	1 l	Glass bottle
84700.320	2,5 l	Glass bottle

Acetone, dehydrated (max. 0.01% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.01 %

Cat. No.	Pk	Pack type
83683.230	250 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Acetone PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Evaporation residue (100°C)	Max. 0.0005 %
Organic residue (as Octanol) (GC/FID)	Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD)	Max. 5 ng/l
Water	Max. 0.3 %

Cat. No.	Pk	Pack type
83960.320	2,5 l	Glass bottle

Acetone PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.7 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.2 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83656.290	1 l	Glass bottle
83656.320	2,5 l	Glass bottle

Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.8 %
Insolubility in water	Passes test
Related substances	Passes test Ph.Eur.
Alkalinity	Max. 0.0003 meq/g
Colouration	Max. 10 APHA
Density (20/20)	0.790 to 0.793
Ethanol	Max. 100 ppm
Methanol	Max. 0.05 %
Substances reducing $KMnO_4$ (as O)	Max. 2 ppm
Al (Aluminium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm
Co (Cobalt)	Max. 0.01 ppm
Cu (Copper)	Max. 0.01 ppm
K (Potassium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.01 ppm
Conforms to ACS	Passes test
Aqueous solution	Passes test
IR Spectrum	Passes test
Acidity	Max. 0.0003 meq/g
Boiling point	56 to 56.7 °C
Density (20/4)	0.790 to 0.792
Aldehydes (as HCHO)	Max.10 ppm
Evaporation residue	Max. 5 ppm
2-Propanol	Max. 100 ppm
Water	Max. 0.2 %
Ba (Barium)	Max. 0.05 ppm
Cd (Cadmium)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm
Fe (Iron)	Max. 0.05 ppm
Mg (Magnesium)	Max. 0.05 ppm
Na (Sodium)	Max. 0.5 ppm
Pb (Lead)	Max. 0.01 ppm
Sr (Strontium)	Max. 0.02 ppm
Conforms to BDH 10003	Passes test
Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
20066.296	1 l	Glass bottle
20066.321	2,5 l	Glass bottle
20066.330	2,5 l	Plastic bottle
20066.423	2,5 l	Glass bottle SAFEBREAK
20066.365	5 l	Plastic bottle
20066.467	25 l	Metal drum
20066.558	200 l	Metal drum with liner

Acetone Ph. Eur.

Assay	Min. 99.0 %
Appearance	Clear colourless liquid
Identification B	Passes test
Identification C	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Relative density	0.790 to 0.793
Reducing substances	Passes test
Methanol (V/V)	Max. 0.05 %
Propan-2-ol (V/V)	Max. 0.05 %
Benzene (V/V)	Max. 2 ppm
Any other impurity (V/V)	Max. 0.05 %
Matter insoluble in water	Passes test
Residue on evaporation	Max. 50 ppm
Water	Max. 3 g/l
Residual solvents	Passes test
Mesityl oxyde (*)	Max. 10 ppm
Statement of original manufacturer	(*)

Cat. No.	Pk	Pack type
20165.298	1 l	Glass bottle
20165.323	2,5 l	Glass bottle
20165.367	5 l	Metal can
20165.460	25 l	Metal drum

Acetone GPR RECTAPUR®

Assay	Min. 99.5 %
Acidity	Passes test
Alkalinity	Passes test
Appearance of solution	Passes test
Insolubility in water	Passes test
IR Spectrum	Passes test
Related substances	Passes test
Boiling point	55.7 to 56.7 °C
Density (20/4)	0.790 to 0.793
Evaporation residue	Max. 20 ppm
Substances reducing $KMnO_4$ (as O)	Max. 2 ppm
Water	Max. 0.3 %
Conforms to BDH 27023	Passes test

Cat. No.	Pk	Pack type
20065.293	1 l	Plastic bottle
20065.327	2,5 l	Plastic bottle
20065.362	5 l	Plastic bottle
20065.464	25 l	Metal drum
20065.470	25 l	Plastic drum
20065.555	200 l	Metal drum

Acetone TECHNICAL

Assay	Min. 99 %
IR Spectrum	Passes test
Conforms to BDH 26287	Passes test

Cat. No.	Pk	Pack type
20063.296	1 l	Plastic bottle
20063.365	5 l	Plastic container
20063.412	10 l	Plastic drum
20063.467	25 l	Plastic drum
20063.558	200 l	Metal drum

Acetone VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51150924.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Acetone Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
55954208.	146 kg	Plastic drum
55954791.	146 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Acetone-[D6]

Dimethyl ketone-D6 , DMK-D6 , Propanone-D6

Danger
H225 H319 H336
EUH066
P210 P280 P305+P351+P338

CAS 666-52-4
EINECS: 211-563-9
UN: 1090
ADR 3,II
Flash Pt: -19 °C (closed cup)

$D_3CC(O)CD_3$
M.W. 64.03 g/mol
Density: 0.79 g/cm³ (20 °C)
Boiling Pt: 55.5 °C (1013 hPa)
Melting Pt: -95.4 °C
Storage Temperature: Ambient temperature

Acetone-[D6] 99.80 for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water (HDO+D_2O) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
87152.0010	10 ml	Glass bottle
87152.0011	10 ml	Glass bottle with septum cap
87152.0025	25 ml	Glass bottle
87152.0100	100 ml	Glass bottle
87152.0006	10 x 0,6 ml	Glass ampoule

Acetonitrile

Cyanomethane , Ethanenitrile , Methyl cyanide , Ethanoic acid nitrile

Danger
H225 H302+H312+H332 H319
P210 P280 P305+P351+P338 P309+P310

CAS 75-05-8
Index 608-001-00-3
EINECS: 200-835-2
UN: 1648
ADR 3,II
Flash Pt: 2 °C (closed cup)

H_3CCN
M.W. 41.05 g/mol
Density: 0.782 g/cm³ (20 °C)
Boiling Pt: 81.6 °C (1013 hPa)
Melting Pt: -45.7 °C
Storage Temperature: Ambient temperature

Acetonitrile HiPerSolv CHROMANORM® for LC-MS

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.9 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 0.02 %
Ca (Calcium) ..... Max. 0.1 ppm
K (Potassium) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Na (Sodium) ..... Max. 0.1 ppm
Transmittance (190 nm) ..... Min. 30 %
Transmittance (200 nm) ..... Min. 80 %
Transmittance (210 nm) ..... Min. 93 %
Transmittance (220 nm) ..... Min. 98 %
Transmittance (230 nm) ..... Min. 99 %
Gradient grade (210 nm) ..... Max. 3 mAU
Gradient grade (254 nm) ..... Max. 1 mAU
Pesticide analysis (Ethylparathion/PND) ..... Max. 10 ng/l
Pesticide analysis (Lindane/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83640.290	1 l	Glass bottle
83640.320	2,5 l	Glass bottle

Acetonitrile HiPerSolv CHROMANORM® Reag. Ph. Eur., super gradient grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99.9 %
Solution (100 g/l)	Neutral
Acidity	Max. 0.0008 meq/g
Alkalinity	Max. 0.0006 meq/g
Density (20/4)	0.781 to 0.784
Distillation 95 %	80 to 82 °C
n 20/D	1.343 to 1.345
Evaporation residue	Max. 2 ppm
Water	Max. 30 ppm
Absorbance (200 nm)	Max. 0.10
Transmittance (195 nm)	Min. 80 %
Transmittance (200 nm)	Min. 95 %
Transmittance (210 nm)	Min. 96 %
Transmittance (220 nm)	Min. 97 %
Transmittance (230 nm)	Min. 98 %
Transmittance (240 nm)	Min. 99 %
Transmittance (250 nm)	Min. 99 %
Transmittance (255 - 420 nm)	Min. 99 %
Fluorescence (as quinine) (254 nm)	Max. 1 ppb
Gradient grade (210 nm)	Max. 10 mAU

Cat. No.	Pk	Pack type
83639.290	1 l	Glass bottle
83639.320	2,5 l	Glass bottle
83639.400	4 l	Glass bottle
83639.360	5 l	Aluminium bottle

Acetonitrile HiPerSolv CHROMANORM®, gradient grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0002 meq/g
Alkalinity	Max. 0.0002 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 0.02 %
Transmittance (190 nm)	Min. 30 %
Transmittance (195 nm)	Min. 80 %
Transmittance (200 nm)	Min. 90 %
Transmittance (210 nm)	Min. 94 %
Transmittance (220 nm)	Min. 96 %
Transmittance (240 nm)	Min. 99 %
Gradient grade (210 nm)	Max. 10 mAU
Conforms to BDH 15251	Passes test

Cat. No.	Pk	Pack type
20060.290	1 l	Glass bottle
20060.320	2,5 l	Glass bottle
20060.420	2,5 l	Glass bottle SAFEBREAK
20060.360	5 l	Aluminium bottle

Acetonitrile HiPerSolv CHROMANORM®, isocratic grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.9 %
Water	Max. 0.03 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0003 meq/g
Transmittance (200 nm)	Min. 80 %
Transmittance (210 nm)	Min. 85 %
Transmittance (220 nm)	Min. 90 %
Transmittance (230 nm)	Min. 98 %
Transmittance (250 nm)	Min. 99 %
Conforms to BDH 15285	Passes test

Cat. No.	Pk	Pack type
20048.290	1 l	Glass bottle
20048.320	2,5 l	Glass bottle
20048.420	2,5 l	Glass bottle SAFEBREAK
20048.360	5 l	Aluminium bottle
20048.461	25 l	Steel drum

NEW Acetonitrile HiPerSolv CHROMANORM® HPLC/ UHPLC

Filtered 0.2 µm filter

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 0.01 %
Transmittance (190 nm)	Min. 30 %
Transmittance (193 nm)	Min. 60 %
Transmittance (195 nm)	Min. 85 %
Transmittance (200 nm)	Min. 96 %
Transmittance (215 nm)	Min. 98 %
Transmittance (230 nm)	Min. 99 %
Gradient grade (210 nm) (Largest peak)	Max. 1 mAU
Gradient grade (210 nm)(Baseline drift)	Max. 15 mAU
Filtered at 0,2 µm	Passes test

Cat. No.	Pk	Pack type
83642.320	2,5 l	Glass bottle

NEW Acetonitrile HiPerSolv CHROMANORM® for preparative HPLC

Assay (calculated on anhydrous)	Min. 99,9 %
Acidity	Max. 0,0005 meq/g
Evaporation residue	Max. 0,0005 %
Water	Max. 0,02 %

Cat. No.	Pk	Pack type
84533.460	25 l	Metal drum
84533.550	200 l	Metal drum

NEW Acetonitrile SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.05 %
Transmittance (200 nm)	Min. 90 %
Transmittance (210 nm)	Min. 95 %
Transmittance (220 nm)	Min. 97 %
Transmittance (230 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84701.290	1 l	Glass bottle
84701.320	2,5 l	Glass bottle

Acetonitrile, anhydrous (max. 0.001% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on dried substance)..... Min. 99.8 %
Acidity..... Max. 0.0005 meq/g
Residue on evaporation..... Max. 0.0005 %
Water ..... Max. 10 ppm

Cat. No.	Pk	Pack type
83676.230	250 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Acetonitrile, anhydrous (max. 0.003% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.8 %
Acidity..... Max. 0.0005 meq/g
Evaporation residue (100°C)..... Max. 0.0005 %
Water ..... Max. 30 ppm

Cat. No.	Pk	Pack type
83713.230	250 ml	Glass bottle
83713.320	2,5 l	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Acetonitrile PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.7 %
Evaporation residue ..... Max. 5 ppm
Water ..... Max. 0.05 %
Pesticide analysis (Ethylparathion/PND) ..... Max. 10 ng/l
Pesticide analysis (Lindane/ECD)..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83657.290	1 l	Glass bottle
83657.320	2,5 l	Glass bottle

Acetonitrile AnalaR NORMAPUR® ACS Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance) ..... Min. 99.5 %
Solution (100 g/l) ..... Passes test
Alkalinity..... Max. 0.0006 meq/g
Colouration ..... Max. 10 APHA
Density (20/20) ..... 0.782 to 0.785
Evaporation residue ..... Max. 10 ppm
CN (Cyanide) ..... Max. 50 ppm
Co (Cobalt)..... Max. 0.01 ppm
Fe (Iron)..... Max. 0.05 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Zn (Zinc)..... Max. 0.1 ppm
Conforms to ACS ..... Passes test
IR Spectrum..... Passes test
Acidity..... Max. 0.0002 meq/g
Boiling point..... 80 to 82 °C
Density (20/4)..... 0.781 to 0.784
n 20/D ..... 1.343 to 1.345
Water ..... Max. 0.15 %
Cd (Cadmium)..... Max. 0.02 ppm
Cu (Copper)..... Max. 0.04 ppm
Mn (Manganese) ..... Max. 0.01 ppm
Pb (Lead)..... Max. 0.05 ppm
Transmittance (255-420 nm) ..... Min. 98 %
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
20071.294	1 l	Glass bottle
20071.328	2,5 l	Glass bottle
20071.460	25 l	Metal drum

Acetonitrile TECHNICAL

Assay..... Min. 99 %
n 20/D ..... 1.343 to 1.345
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
20070.291	1 l	Glass bottle
20070.325	2,5 l	Glass bottle
20070.462	25 l	Metal drum
20070.553	192 l	Metal drum

Acetonitrile-[D3]

Cyanomethane-D3 , Ethannitrile-D3 , Methyl cyanide-D3

Danger
H225 H302+H312+H332 H319
P210 P280 P305+P351+P338 P309+P310

CAS 2206-26-0
EINECS: 218-616-5
UN: 1648
ADR 3,II
Flash Pt: 2 °C (closed cup)

D_3CCN
M.W. 44.03 g/mol
Density: 0.844 g/cm³ (20 °C)
Boiling Pt: 80.7 °C (1013 hPa)
Melting Pt: -42 °C
Storage Temperature: Ambient temperature

Acetonitrile-[D3] 99.80 for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water (HDO+D_2O) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
87155.0010	10 ml	Glass bottle
87155.0011	10 ml	Glass bottle with septum cap

2-Acetoxybenzoic acid

See o-Acetylsalicylic acid..... p.11

Acetylacetone

ACAC

Danger
H226 H302
P210 P243 P280 P301+P312

CAS 123-54-6
Index 606-029-00-0
EINECS: 204-634-0
UN: 2310
ADR 3,III
Flash Pt: 30 °C

$CH_3COCH_2COCH_3$
M.W. 100.12 g/mol
Density: 0.96945 g/cm³ (20 °C)
Boiling Pt: 140.4 °C (1013 hPa)
Melting Pt: -23 °C
Storage Temperature: Ambient temperature

Acetylacetone AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.0 %
Water ..... Max. 0.2 %
Fe (Iron)..... Max. 1 ppm
Evaporation residue ..... Max. 50 ppm
Cu (Copper)..... Max. 1 ppm
Pb (Lead)..... Max. 1 ppm

Cat. No.	Pk	Pack type
20092.230	250 ml	Glass bottle

Acetylacetone TECHNICAL

Assay..... Min. 99 %
n 20/D ..... 1.450 to 1.452

Cat. No.	Pk	Pack type
20081.298	1 l	Glass bottle

Acetylacetone solution

CAS 123-54-6
EINECS: 204-634-0
UN: 2310
ADR 3,III

$CH_3COCH_2COCH_3$

Acetylacetone solution Reag. Ph. Eur. 1000901

Cat. No.	Pk	Pack type
87761.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Acetylsalicylic acid

See o-Acetylsalicylic acid p.11

o-Acetylsalicylic acid

2-Acetoxybenzoic acid , Acetylsalicylic acid , Aspirin®

Warning
H302 H319 H335 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 50-78-2
EINECS: 200-064-1
Flash Pt: 250 °C

$2\text{-}(CH_3CO_2)C_6H_4CO_2H$
M.W. 180.16 g/mol
Density: 1.39 g/cm³ (20 °C)
Boiling Pt: 140 °C (1013 hPa)
Melting Pt: 138 to 140 °C
Storage Temperature: Ambient temperature

o-Acetylsalicylic acid GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Salicylic acid ..... Max. 0.05 %

Cat. No.	Pk	Pack type
20110.290	1 kg	Plastic bottle

Acetylthiocholine iodide

(2-Acetylthioethyl)trimethylammonium iodide

Danger
H301+H311 H319 H315
P280 P302+P352 P305+P351+P338 P309+P310

CAS 1866-15-5
EINECS: 217-474-1
UN: 2811
ADR 6.1,III

$H_3CC(S)O(CH_2)_2N(CH_3)_3I$
M.W. 289.18 g/mol
Melting Pt: 204 °C
Storage Temperature: 2 - 8°C

Acetylthiocholine iodide

Substrate for acetylcholinesterase.

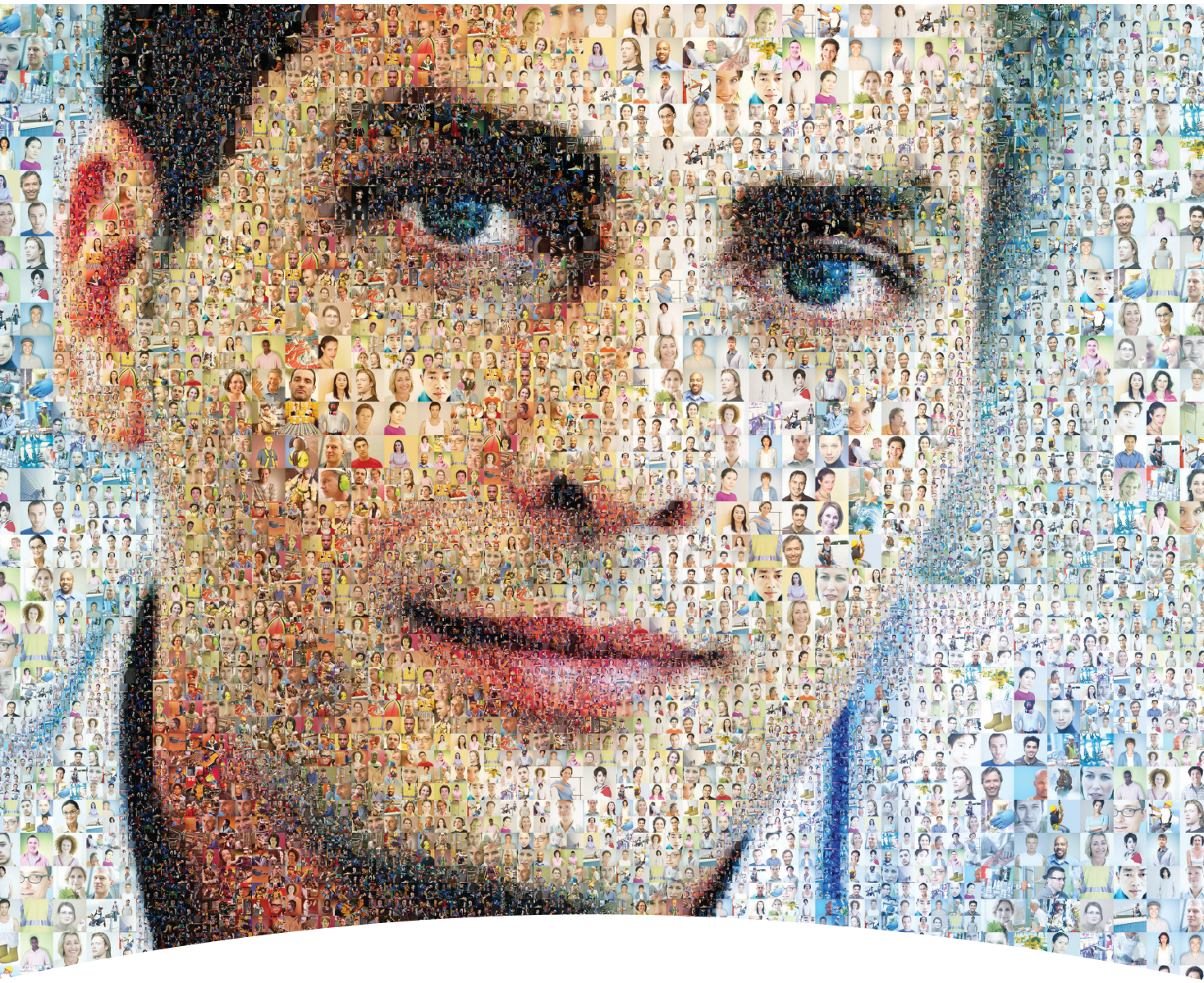
Assay (argentometric) ..... Min. 99.5 %
Identity (IR-spectrum) ..... passes test

Cat. No.	Pk	Pack type
400034L	10 g	Glass bottle

(2-Acetylthioethyl)trimethylammonium iodide

See Acetylthiocholine iodide p.11

lead them to safety



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KCL by Honeywell

MILLER by Honeywell

NORTH by Honeywell

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Honeywell Safety Products has the broadest portfolio of leading safety solutions in the marketplace today. Our core mission is to help safety managers build an enduring culture of safety that minimizes injuries and maintains a more protective and productive workplace. Partner with Honeywell to discover new ways to lead them to safety. Visit our website today.

Honeywell

www.honeywellsafety.com/culture

Lead them to safety – Build an enduring culture of safety where employees make safe choices on their own: www.honeywellsafety.com

Acids - High purity acids for trace metal analysis NORMATOM®

In trace analysis, it's crucial to use an homogeneous solution, so samples are usually prepared using a digestion method with a mineral acid. The high purity of these acids is essential to avoid inaccuracy in the final results caused by impurities in these ancillary reagents. NORMATOM® acids have been created to satisfy these exacting purity requirements. These ultrapure products have extensive specifications with most potential contaminants guaranteed at a level which does not exceed 0.1 ppm.

- Very high purity (specifications in ppb)
- Produced by sub-boiling distillation
- Supplied in special polyethylene bottles
- Delivered with Certificate of Analysis

Description	Page	Pk	Cat. No.
Acetic acid 99% NORMATOM® for trace metal analysis	2, 13	500 ml	83876.270
Acetic acid 99% NORMATOM® for trace metal analysis	2, 13	2,5 l	83876.330
Ammonia 20% NORMATOM® for trace metal analysis	13, 28	500 ml	83870.270
Hydrochloric acid 34% NORMATOM® for trace metal analysis	13, 226	500 ml	83871.270
Hydrochloric acid 34% NORMATOM® for trace metal analysis	13, 226	1 l	83871.290
Hydrochloric acid 34% NORMATOM® for trace metal analysis	13, 226	2,5 l	83871.330
Hydrochloric acid 32% NORMATOM®, ultrapure for trace metal analysis	13, 226	500 ml	83878.270
Hydrochloric acid 32% NORMATOM®, ultrapure for trace metal analysis	13, 226	1 l	83878.290
Hydrofluoric acid 47% NORMATOM® for trace metal analysis	13, 230	500 ml	83873.260
Nitric acid 67% NORMATOM®, ultrapure for trace metal analysis	13, 325	500 ml	83879.270
Nitric acid 67% NORMATOM®, ultrapure for trace metal analysis	13, 325	1 l	83879.290
Nitric acid 67% NORMATOM® for trace metal analysis	13, 325	500 ml	83872.270
Nitric acid 67% NORMATOM® for trace metal analysis	13, 325	1 l	83872.290
Nitric acid 67% NORMATOM® for trace metal analysis	13, 325	2,5 l	83872.330
Perchloric acid 65% NORMATOM® for trace metal analysis	13, 348	500 ml	83874.260
Perchloric acid 65% NORMATOM® for trace metal analysis	13, 348	2,5 l	83874.320
Perchloric acid 65% NORMATOM® for trace metal analysis	13, 348	2,5 l	83874.420
Sulphuric acid 93% NORMATOM® for trace metal analysis	13, 488	500 ml	83875.270
Sulphuric acid 93% NORMATOM® for trace metal analysis	13, 488	1 l	83875.290
Sulphuric acid 93% NORMATOM® for trace metal analysis	13, 488	2,5 l	83875.330
Water NORMATOM® for trace metal analysis	13, 536	500 ml	83877.260
Water NORMATOM® for trace metal analysis	13, 536	1 l	83877.290

Acid Blue 83

See Coomassie® Brilliant Blue R-250 ..... p.121

Acid Blue 90

See Coomassie® Brilliant Blue G-250 ..... p.121

Acid Blue 93

See Methyl blue p.289

Acidum ascorbicum

See L(+)-Ascorbic acid p.51

Acidum ascorbicum sodium salt

See Sodium L(+)-ascorbate p.432

Acriflavine

Danger
H350 H340 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338

CAS 8048-52-0

$C_{27}H_{25}ClN_6$
Storage Temperature: Ambient temperature

VWR CHEMICALS Acriflavine, ultrapure

A yellow dye commonly employed as a bacteriostatic agent.

Ash	1.0 %
Chlorine	13.3 - 15.8 %
Identification	PASS
Loss on Drying	6.5 %
Solubility (20%, Water)	PASS

Cat. No.	Pk	Pack type
0310-100G	100 g	Glass bottle

Acrylamide (monomer)

Prop-2-enamide

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 79-06-1
Index 616-003-00-0
EINECS: 201-173-7
UN: 2074
ADR 6.1,III
Flash Pt: 138 °C

Restricted to professional users.

$CH_2=CHCONH_2$
M.W. 71.08 g/mol
Density: 1.122 g/cm³ (20 °C)
Boiling Pt: 232 °C (1013 hPa)
Melting Pt: 84.5 °C
Storage Temperature: 2 - 8°C

Acrylamide (monomer) Electran® for electrophoresis

Identity	Passes test (IR)
Assay (by GC)	Min 99.9 %
pH (c = 5%, H_2O)	5.0 to 6.5
Absorbance 290 nm (C = 1% - 10 mm)	Max 0.15
Appearance of the solution (c = 50%, H_2O)	Clear and colourless
Maximum conductivity (50% w/v solution, 20 °C)	Max 2.0 mS/cm
Turbidity, 50% w/v in methanol (37 °C)	Max 3.0 NTU
Turbidity, 50% w/v in water	Max 2.0 NTU
Water-insoluble matter	Max 0.005 %
Water (Karl Fischer)	Max 0.1 %
Free acid (as Acrylic acid)	Max 0.001 %

Cat. No.	Pk	Pack type
442994J	1 kg	Plastic bottle

VWR CHEMICALS Acrylamide (monomer), ultrapure

Conductivity (40%, Water)	5 umhos
DNase	NONE
Free Acrylic Acid	<0.001 %
Identification	PASS
Insolubles	< 0.005 %
Iron	< 0.0001 %
Lead	< 0.0001 %
Magnesium	< 0.0001 %
Melting Point	84 - 86 °C
Moisture (KF)	< 0.2 %
pH (10%, 0.1 M NaCl) @25 °C	5.5 - 6.5
Protease	NONE
Purity	99.9 %
Reassay Date	REPORT
RNase	NONE

Cat. No.	Pk	Pack type
0341-100G	100 g	Plastic bottle for solids
0341-500G	500 g	Plastic bottle for solids
0341-1KG	1 kg	Plastic bottle for solids

VWR CHEMICALS Acrylamide (monomer), proteomics grade

Conductivity (40%, Water)	5 umhos
DNase	NONE
Electrophoresis	PASS
Free Acrylic Acid	<0.001 %
Identification	PASS
Insolubles	< 0.005 %
Iron	< 0.0001 %
Lead	< 0.0001 %
Magnesium	< 0.0001 %
Melting Point	84 - 86 °C
Moisture (KF)	< 0.2 %
pH (10%, 0.1 M NaCl) @25 °C	5.5 - 6.5
Protease	NONE
Purity	99.9 %
RNase	NONE

Cat. No.	Pk	Pack type
M120-100G	100 g	Plastic bottle for solids
M120-500G	500 g	Plastic bottle for solids
M120-1KG	1 kg	Plastic bottle for solids

Acrylamide (monomer) in aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 79-06-1
EINECS: 201-173-7
UN: 3426
ADR 6.1,III

Restricted to professional users.

$CH_2=CHCONH_2$

Acrylamide (monomer) 40% in aqueous solution Electran® for electrophoresis

Cat. No.	Pk	Pack type
443545P	1 l	Glass bottle SAFEBREAK

Acrylamide (monomer) 40% in aqueous solution, ultrapure

Acrylic Acid	< 0.005 %
Conductivity	5 umhos
Electrophoresis	PASS
pH @25 °C	6.00 - 7.00

Cat. No.	Pk	Pack type
0132-500ML	500 ml	Plastic bottle for solids

Acrylamide (monomer) 40% in aqueous solution, proteomics grade

Acrylic Acid	< 0.005 %
Conductivity	5 umhos
DNase	NONE
Electrophoresis	PASS
pH @25 °C	6.00 - 7.00
Protease	NONE
RNase	NONE

Cat. No.	Pk	Pack type
M121-100ML	100 ml	Plastic bottle
M121-500ML	500 ml	Plastic bottle

Linear acrylamide (5 mg/ml)

Linear acrylamide (5 mg/ml) for biotechnology

A co-precipitant that improves the yield of nucleic acids in the precipitation steps of purification protocols. DNase- and RNase-free.

Cat. No.	Pk	Pack type
K548-5X1ML	5 ml	Plastic tube

Acrylamide-Bis (37.5:1)

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Storage Temperature: 2 - 8°C

Acrylamide-Bis (37.5:1), ultrapure

Abs.@290 nm (1%, Water) (Bis)	≤ 0.2
Acrylic Acid (Bis)	≤ 0.001 %
Conductivity (Acryl)	≤ 5 umhos
Conductivity (Bis)	10 umhos
Free Acrylic Acid (Acryl)	≤ 0.001 %
Iron (Acryl)	≤ 0.0001 %
Lead (Acryl)	≤ 0.0001 %
Melting Point (Acryl)	84 - 86 °C
pH (10%, 0.1M NaCl) (Acryl)	5.5 - 6.5
Purity (Acryl)	≤ 99.9 %
Purity (Bis)	≤ 99.0 %

Cat. No.	Pk	Pack type
0907-40G	40 g	Plastic bottle for solids
0907-200G	200 g	Plastic bottle for solids

Acrylamide-Bis (37.5:1), 40% aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Storage Temperature: Ambient temperature

Acrylamide-Bis (37.5:1), 40% aqueous solution, ultrapure

Conductivity	10 umhos
Electrophoresis	PASS
pH @25 °C	REPORT

Cat. No.	Pk	Pack type
0254-500ML	500 ml	Plastic bottle for solids

Acrylamide-Bis (37.5:1), 40% aqueous solution, powder

Conductivity (µmhos)	≤ 10
DNase (P/F)	NONE
Electrophoresis (P/F)	PASS
pH @25 °C	REPORT
Polymerisation Time (minutes)	≤ 20
Protease (P/F)	NONE
RNase (P/F)	NONE

Cat. No.	Pk	Pack type
M157-500ML	500 ml	Plastic bottle

Acrylogel 2.6 (40%) solution Electran® for electrophoresis

Appearance	Clear colourless liquid
N,N'-Methylenebisacrylamide	2.4 to 2.8 %
Acrylic acid	Max. 0.002 %
Absorptivity (1 %; 1 cm; 290 nm)	Max. 0.15

Cat. No.	Pk	Pack type
443745V	1 l	Glass bottle SAFEBREAK

Acrylamide-Bis (37.5:1), 30% aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Density: 1.03 g/cm³ (20 °C)

Acrylogel 2.6 (30%) solution Electran® for electrophoresis

A convenient, ready-to-use 30% w/v (30%T) solution of Acrylamide `Electran` and NN'-Methylenebisacrylamide `Electran` (2.6%C) in deionised water (Final ratio is 37.5:1)

Appearance	Clear colourless liquid
N,N'-Methylenebisacrylamide	2.4 to 2.8 %
Acrylic acid	Max. 0.002 %
Absorptivity (1 %; 1 cm; 290 nm)	Max. 0.15

Cat. No.	Pk	Pack type
427205E	1 l	Glass bottle

Acrylamide-Bis (29:1)

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Storage Temperature: 2 - 8°C

Acrylamide-Bis (29:1), ultrapure

Conductivity (30%, Water) ..... 10.0 umhos
Electrophoresis ..... PASS
Solubility (30%, Water) ..... PASS

Cat. No.	Pk	Pack type
0673-40G	40 g	Plastic bottle for solids
0673-200G	200 g	Plastic bottle for solids

Acrylamide-Bis (29:1), 40% aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Storage Temperature: Ambient temperature

Acrylamide-Bis (29:1), 40% aqueous solution, ultrapure

Conductivity ..... 10 umhos
Electrophoresis ..... PASS
pH @25 °C ..... REPORT

Cat. No.	Pk	Pack type
0311-500ML	500 ml	Plastic bottle for solids
0311-1L	1 l	Plastic bottle for solids

Acrylamide-Bis (29.1:0.9), 40% aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.

Acrylogel 3 solution Electran® for electrophoresis

A convenient, ready-to-use 40% w/v (40%T) solution of Acrylamide Electran® and NN'-Methylenebisacrylamide Electran® 3% (C±0.2%) in deionised water. Final ratio 29.1:0.9.

Appearance ..... Clear colourless liquid
N,N'-Methylenebisacrylamide ..... 2.8 to 3.2 %
Acrylic acid ..... Max. 0.002 %
Absorptivity (1 %; 1 cm; 290 nm) ..... Max. 0.15

Cat. No.	Pk	Pack type
443733R	250 ml	Glass bottle SAFEBREAK
443735T	1 l	Glass bottle SAFEBREAK

Acrylamide-Bis (19:1), 40% aqueous solution

Danger
H350 H340 H361f H301 H372 H312+H332 H319
H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310
UN: 3426
ADR 6.1,III

Restricted to professional users.
Density: 1.03 g/cm^3 (20 °C)
Storage Temperature: Ambient temperature

Acrylamide-Bis (19:1), 40% aqueous solution, ultrapure

Conductivity ..... 10 umhos
DNase ..... NONE
Electrophoresis ..... PASS
pH @25 °C ..... REPORT
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
0496-500ML	500 ml	Plastic bottle for solids
0496-1L	1 l	Plastic bottle for solids

Acryl/Bis solution (30%)29:1

Acryl/Bis solution (30%) 29:1, ultrapure

Cat. No.	Pk	Pack type
E344-500ML	500 ml	Plastic bottle

Acryl/Bis solution (30%)37,5:1

Acryl/Bis solution (30%) 37,5:1, ultrapure

Cat. No.	Pk	Pack type
E347-500ML	500 ml	Plastic bottle

Acrylogel

See Acrylamide-Bis (29.1:0.9), 40% aqueous solution. p.16

Actinomycin D

Danger
H350 H340 H360 H300 H319 H335 H315 H334 H317
P280 P302+P352 P304+P340 P305+P351+P338 P310

CAS 50-76-0
EINECS: 200-063-6
UN: 3462
ADR 6.1,III

$C_{62}H_{86}N_{12}O_{16}$
Storage Temperature: 2 - 8°C

Actinomycin D, ultrapure

Prevents RNA transcription by binding DNA at transcription initiation sites. Binds GC-rich DNA sequences.
Recommended working concentration: 1 µg/ml in DMSO.

Melting Point ..... 242 - 250 °C
Purity (HPLC) ..... > 98.0 %
Solubility (0.1%, DMSO) ..... PASS

Cat. No.	Pk	Pack type
J608-5MG	5 mg	Glass bottle

Adenine sulphate

CAS 321-30-2
EINECS: 206-286-5

$C_{10}H_{12}N_{10}O_4S$
M.W. 368.34 g/mol
Storage Temperature: Ambient temperature

Adenine sulphate, high purity

Component of YAC selection media.

Em (262 nm, 0.01 N HCl) 13000
Purity ..... 99.0 %
Solubility (0.05%, Water) ..... PASS
Water (KF) ..... 6 - 10 %

Cat. No.	Pk	Pack type
0607-50G	50 g	Plastic bottle for solids
0607-100G	100 g	Plastic bottle for solids

Adenine
6-Aminopurine , Purin-6-amine

Danger
H301
P301+P312

CAS 73-24-5
EINECS: 200-796-1
UN: 2811
ADR 6.1,III

$C_5H_5N_5$
M.W. 135.13 g/mol
Density: 0.99741 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

VWR CHEMICALS Adenine, high purity

Heavy Metals	< 0.001 %
Identification (IR)	PASS
Loss on Drying	1.0 %
Nitrogen Content	50.2 - 53.4 %
Purity	98.0 %
Residue on Ignition	0.1 %
Solubility (0.05%, Water)	NONE

Cat. No.	Pk	Pack type
0183-50G	50 g	Plastic bottle for solids
0183-100G	100 g	Plastic bottle for solids

Adenosine

CAS 58-61-7
EINECS: 200-389-9

$C_{10}H_{13}N_5O_4$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Adenosine, high purity

Em (257 nm, 0.1 N HCl, pH 2.0)	14600
Loss on Drying	0.5 %
Purity	99.0 %

Cat. No.	Pk	Pack type
0325-50G	50 g	Plastic bottle for solids
0325-100G	100 g	Plastic bottle for solids

Adenosine 5'-diphosphate disodium salt (ADP disodium salt) dihydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 16178-48-6
EINECS: 240-314-7

$C_{10}H_{13}N_5Na_2O_{10}P_2.2H_2O$
Storage Temperature: -20°C

VWR CHEMICALS Adenosine 5'-diphosphate disodium salt (ADP disodium salt) dihydrate, ultrapure

A250/A260	0.74 - 0.82
A280/A260	0.13 - 0.19
Arsenic	<0.0001 %
ATP	1.0 %
Em (259 nm, Phosphate Buffer, pH 7.0)	14500
Heavy Metals	< 0.002 %
Loss on Drying	8.0 %
Solubility (5%, Water)	PASS

Cat. No.	Pk	Pack type
0160-5G	5 g	Glass bottle

Adenosine 5'-monophosphate disodium salt (AMP disodium salt) hydrate

CAS 4578-31-8
EINECS: 224-961-2

$C_{10}H_{12}N_5Na_2O_7P.H_2O$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Adenosine 5'-monophosphate disodium salt (AMP disodium salt) hydrate, ultrapure

A250/A260	0.79 - 0.90
A280/A260	0.18 - 0.22
Em (258 nm, Phosphate Buffer, pH 7.0)	11000
Heavy Metals	<0.002 %
Solubility (5%, Water)	PASS

Cat. No.	Pk	Pack type
0634-25G	25 g	Plastic bottle for solids

Adenosine 5'-triphosphate disodium salt (ATP disodium salt) trihydrate

CAS 51963-61-2
EINECS: 213-579-1

$C_{10}H_{14}N_5Na_2O_{13}P_3.3H_2O$
Storage Temperature: -20°C

VWR CHEMICALS Adenosine 5'-triphosphate disodium salt (ATP disodium salt) trihydrate, ultrapure

A250/A260	0.75 - 0.81
A280/A260	0.14 - 0.18
AMP & ADP	0.5 %
Em (259 nm, Phosphate Buffer, pH 7.0)	14700
Heavy Metals	0.003 %
Moisture (KF)	10.0 %
Purity	98.0 %
Sodium (Flame Photom)	7.0 - 8.0 %
Solubility (5%, Water)	PASS

Cat. No.	Pk	Pack type
0220-25G	25 g	Plastic bottle for solids
0220-100G	100 g	Plastic bottle for solids

Adipic acid
1,6-Hexanedioic acid

Warning
H319
P280 P305+P351+P338

CAS 124-04-9
Index 607-144-00-9
EINECS: 204-673-3
Flash Pt: 196 °C (closed cup)

$HOOC(CH_2)_4COOH$
M.W. 146.14 g/mol
Density: 1.36 g/cm³ (25 °C)
Boiling Pt: 337 °C (1013 hPa)
Melting Pt: 151 °C
Storage Temperature: Ambient temperature

Adipic acid TECHNICAL

Assay (calculated on dried substance)	Min. 99 %

Cat. No.	Pk	Pack type
20115.365	5 kg	Bucket (Plastic)

AEBSF hydrochloride (4-(2-Aminoethyl) benzenesulphonylfluoride hydrochloride)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 30827-99-7
UN: 3261
ADR 8,II

$C_8H_{11}ClFNO_2S$
Storage Temperature: 2 - 8°C

AEBSF hydrochloride (4-(2-Aminoethyl) benzenesulphonylfluoride hydrochloride), ultrapure

An irreversible serine protease inhibitor of chymotrypsin, trypsin, kallikrein, plasmin and thrombin. Useful as a non-toxic alternative to PMSF.

Purity (Titration) ..... 98 %
Solubility (0.02%, Water) ..... PASS

Cat. No.	Pk	Pack type
J582-50MG	50 mg	Glass bottle
J582-250MG	250 mg	Glass bottle
J582-500MG	500 mg	Glass bottle

Aerosol® OT

See Docusate sodium p.156

Aesculin sesquihydrate

6,7-Dihydroxycumarin-6β-D-glucopyranoside sesquihydrate

CAS 66778-17-4
EINECS: 208-517-5

$C_{15}H_{16}O_9.1,5H_2O$
M.W. 367.31 g/mol
Melting Pt: 203 to 205 °C

Aesculin sesquihydrate TECHNICAL

Spec. opt. rot. (2 %;dioxan/water 50/50) ..... -87.5 to -84.0 °
Water ..... 7.0 to 8.5 %

Cat. No.	Pk	Pack type
23676.124	10 g	Plastic bottle for solids

Aethoform

See Benzocaine (Ethyl 4-aminobenzoate) p.63

AFA

See Histological Fixative A.F.A. p.218

Agar

Agar Agar

CAS 9002-18-0
EINECS: 232-658-1
Melting Pt: 90 °C
Storage Temperature: Ambient temperature

Agar, powder for bacteriology

Clarity after autoclaving (*) ..... Max. 8 NTU
Clarity before autoclaving ..... Max. 10 NTU
Gelling point (1.5 %; water) (*) ..... 35 to 37 °C
Gel strength (1.5 %; water) (*) ..... Min. 900 g/cm²
pH after autoclaving (1.5 %) (*) ..... 6.0 to 7.0
pH before autoclaving (10 %) ..... 6.5 to 7.2
Ignition residue (SO_4) ..... Max. 5 %
As (Arsenic) ..... Max. 5 ppm
Pb (Lead) ..... Max. 2 ppm
(*): tested on a 1.5 % solution after autoclaving (121 °C) and cooled to 60 °C

Cat. No.	Pk	Pack type
20767.232	250 g	Plastic bottle for solids
20767.298	1 kg	Plastic bottle for solids

Agar, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
20768.235	250 g	Plastic bottle for solids
20768.292	1 kg	Plastic bottle for solids
20768.361	5 kg	Bucket (Plastic)

Agarose

CAS 9012-36-6
EINECS: 232-731-8
Melting Pt: 60 to 90 °C
Storage Temperature: Ambient temperature

Agarose DNA Grade Electran® for electrophoresis

DNA grade agarose is suitable for the majority of routine DNA separations. For applications where a more stringent specification is required use Agarose molecular biology grade.

- DNase and RNase free

DNA binding ..... Passes test
Electroendosmosis (-Mr) ..... Max. 0.15
Gelling temperature (1,5 %; water) ..... 34 to 37°C
Gel strength (1,5 %; water) ..... Min. 2100 g/cm²
Ignition residue ..... Max. 1 %
Loss on drying ..... Max. 10 %

Cat. No.	Pk	Pack type
438792U	100 g	Plastic bottle
438795A	1 kg	Plastic bottle

Agarose DNA Pure Grade Electran® for electrophoresis

Agarose DNA pure grade ensures reliable digestion and ligations from recovered DNA or RNA fragments from 100 bp to 25 kb. It is particularly suitable for both preparative and analytical separation procedures with nucleic acids ≥1000 base pairs, where a low melting point is not required. The agarose gives rise to firm gels even at low concentrations and gives low background after ethidium bromide staining.

- Best choice for DNA/RNA recovery and cloning applications
- DNase and RNase free

DNA binding ..... None
DNase/RNase ..... Not detected
Electroendosmosis (-Mr) ..... -0.14 to -0.08
Gel strength (1,5 %; water) ..... Min. 2300 g/cm²
Gelling temperature (1,5 %; water) ..... 34 to 37 °C
SO_4 (Sulphate) ..... Max. 0.09 %

Cat. No.	Pk	Pack type
443666A	500 g	Plastic bottle

Agarose Wide Range Low Melting Electran® for electrophoresis

Agarose, low gelling temperature has low melting and gelling temperatures, low sulphate content and high optical clarity. It is suitable for use in protein and nucleic acid electrophoresis and for immobilisation of heat labile substances (e.g. bacteria, yeast and Eukaryotic cells) due to the low gelling point. In addition, the low melting point of this agarose offers the possibility of recovering proteins and nucleic acids without denaturation when remelted.

DNA binding ..... None
DNase/RNase ..... Not detected
Electroendosmosis (-Mr) ..... -0.14 to -0.05
Melting point (1,5 %; water) ..... Max. 66 °C
Gel strength (1,5 %; water) ..... Min. 200 g/cm²
Gelling temperature (1,5 %; water) ..... Max. 31 °C
SO_4 (Sulphate) ..... Max. 0.1 %

Cat. No.	Pk	Pack type
444152G	25 g	Plastic bottle
444153H	125 g	Plastic bottle

Agarose High Resolution Low Melting Electran® for electrophoresis

Agarose high resolution (HR) has low melting and gelling temperatures but differs from traditional low melting point molecular biology grade agaroses in the gel separation range. Using this agarose in electrophoresis allows fine and consistent resolution of nucleic acids below 1000 base pairs, which differ by only a few base pairs. The properties of Agarose HR allow consistent gel separations (analytical and preparative) and performance of *in-vitro* translation and transcription mapping as well as *in-vivo* ligation and transformation. For analytical gel separation of DNA/RNA below 1000 base pairs where a higher gel strength for ease of manipulation is required, we recommend the use of Agarose, high resolution, Electran® (43655).

- DNase and RNase free

DNA binding ..... Passes
DNase/RNase ..... Passes
Electroendosmosis (-Mr) ..... Max. 0.13
Gel strength ..... Min. 1400 g/cm²
Gelling temperature ..... 32.5 to 38.0 °C
Melting point ..... Max. 90 °C
Ignition residue ..... Max. 1 %
Loss on drying ..... Max. 10 %
SO_4 (Sulphate) ..... Max. 0.15 %

Cat. No.	Pk	Pack type
437122H	25 g	Plastic bottle
437123Y	125 g	Plastic bottle

Agarose, High Resolution Electran® for electrophoresis

For analytical gel separations of DNA/RNA below 1000 base pairs where a higher gel strength for ease of manipulation is required

- DNase and RNase free

Cat. No.	Pk	Pack type
436552V	25 g	Plastic bottle
436553W	100 g	Plastic bottle

Agarose 15 Electran® for electrophoresis

Agarose 15 is suitable for use in a wide variety of general applications in protein electrophoresis and immunoelectrophoresis. It has a medium range of electroendosmosis and high gel strength.

- DNase and RNase free

Gel strength (1,5 %; water) ..... Min. 1800
Gelling temperature (1,5 %; water) ..... Passes test
Electroendosmosis (-Mr) ..... 0.15 to 0.19
Sulphates ..... Max. 0.2 %
Residue on ignition ..... Max. 1 %
Loss on drying ..... Max. 10 %

Cat. No.	Pk	Pack type
443023R	25 g	Plastic bottle
443024S	125 g	Plastic bottle
443025T	500 g	Plastic bottle

Agarose 25 Electran® for electrophoresis

Agarose 25 is suitable for use in a wide range of protein electrophoresis techniques and is particularly recommended for counter immunoelectrophoresis. In this application the higher electroendosmosis permits optimum positioning during antibody/antigen contact.

- DNase and RNase free

Electroendosmosis (-Mr) ..... -0,27 to -0,23
Gel strength (1,5 %; water) ..... Min. 1500 g/cm²
Gelling temperature (1,5 %; water) ..... 34 to 37 °C
SO_4 (Sulphate) ..... Max. 0.6 %

Cat. No.	Pk	Pack type
442492P	25 g	Plastic bottle
442494R	125 g	Plastic bottle

Agarose IEF Electran® for electrophoresis

Agarose IEF is designed to be free of electroendosmosis which makes it ideal for isoelectric focusing applications with all pH ranges. It is also recommended for use in isotachophoresis.
The agarose forms highly porous gels, which permit rapid focusing of high molecular weight proteins. The agarose solutions can easily be cast into thin gels for improved resolution, the gels rapidly setting at room temperature.

- DNase and RNase free

Electroendosmosis ..... Below detection
Gel strength (1,5 %; water) ..... Min. 500 g/cm²
SO_4 (Sulphate) ..... Max. 0.2 %

Cat. No.	Pk	Pack type
443173H	25 g	Plastic bottle
443174Y	100 g	Plastic bottle

VWR CHEMICALS Agarose I™ for biotechnology

Agarose I™ is a standard melting/gelling agarose, suitable for routine nucleic acid analytical/preparative applications (250 bp - 22 kb). Agarose I™ has a low EEO for shorter electrophoretic runs without compromising resolution. Agarose I™ is excellent for blotting techniques and general manipulations.

- All-purpose, high purity agarose
- Exceptional band resolution and clarity
- Nuclease and protease-free
- Convenient tablet format available - no weighing required

DNase ..... NONE
EEO(-Mr) ..... <0.13
Endonuclease/ligase inhibitory factors ..... NONE
Gel Strength (1.5%) ..... 1200 g/cm²
Gelling Range (1.5%) ..... 36 - 39 °C
Melting Range (1.5%) ..... 87 - 89 °C
Moisture ..... < 10 %
Protease ..... NONE
RNase ..... NONE
Sulfate ..... 0.15 %

Cat. No.	Pk	Pack type
0710-25G	25 g	Plastic bottle
0710-100G	100 g	Plastic bottle
0710-250G	250 g	Plastic bottle
0710-500G	500 g	Plastic bottle

VWR CHEMICALS Agarose II™ for biotechnology

A low melting agarose that melts between 62 to 68 °C and remains liquid for several hours at 37 °C. Ideal for purification of macromolecules from agarose slices and for in-gel enzymatic manipulations.

DNase ..... NONE
EEO (-Mr) 0.12
Gel Strength (1.0%) ..... 250 g/cm²
Gelling Range (1.0%) ..... 24 - 29 °C
Melting Range ..... 62 - 68 °C
Moisture ..... < 10 %
Protease ..... NONE
RNase ..... NONE
Sulfate ..... 0.1 %

Cat. No.	Pk	Pack type
0815-25G	25 g	Plastic bottle
0815-100G	100 g	Plastic bottle
0815-250G	250 g	Plastic bottle

Agarose LF™ for pulsed field gel electrophoresis (PFGE)

Agarose LF™ (Large Fragment, 1 kb - 40 kb) is optimised for pulsed-field gel electrophoresis (PFGE) applications. The exceptionally low EEO and high gel strength of Agarose LF™ facilitates faster electrophoresis running times in low concentration gels. This agarose is best suited for resolving large (>20 kb) DNA fragments.

- Optimised for pulsed field gel electrophoresis (PFGE)
- Ideal for resolving large (>20 kb) DNA fragments
- Nuclease and protease-free

DNase	NONE
EEO (Electroendosmosis)	0.06
Endonuclease/Ligase Inhibitory Factors	NONE
Gel Strength	2000 g/cm^2
Gelling Range	37 - 41 °C
Melting Range	93 - 96 °C
Moisture	8.5 %
Protease	NONE
RNase	NONE
Sulfate	0.06 %

Cat. No.	Pk	Pack type
X174-25G	25 g	Plastic bottle
X174-100G	100 g	Plastic bottle
X174-250G	250 g	Plastic bottle

Agarose SFR™ for biotechnology

Agarose SFR™ (Super Fine Resolution) is a high resolution sieving agarose with excellent clarity. DNA bands differing in size by 2% can be resolved in the range of 200 bp to 1000 bp. This agarose is suitable for the analysis of AFLPs (Amplified Fragment Length Polymorphisms), STRs (Short Tandem Repeats) and tetranucleotide repeats. The low melting temperature of Agarose SFR™ makes it an excellent medium for analytical and preparative electrophoresis.

- Super fine resolution - resolve 238 bp and 242 bp bands
- Low melting point
- Nuclease and protease-free

Appearance	PASS
Ash	0.35 %
Conductivity (1%, Water) @25 °C	10 umhos
DNase	NONE
EEO (-Mr)	0.12
Gel Strength (1.5%, Water)	500 g/cm^2
Gelling Temperature (1.5%, Water)	30.0 °C
Melting Point (1.5%, Water)	70.0 °C
Moisture	7.0 %
pH (1%, Water) @25 °C	REPORT
Protease	NONE
RNase	NONE
Sulfate	0.11 %

Cat. No.	Pk	Pack type
J234-25G	25 g	Plastic bottle
J234-100G	100 g	Plastic bottle
J234-250G	250 g	Plastic bottle

L-Alanine

L(+)-Alanine , (S)-(+)-Alanine , α-Alanine , A , H-L-Ala-OH , L-α-Alanine , H-Ala-OH

CAS 56-41-7
EINECS: 200-273-8

$C_3H_7NO_2$
M.W. 89.09 g/mol
Density: 1.4 g/cm^3 (20 °C)
Boiling Pt: 189 °C (1013 hPa)
Melting Pt: 79 °C
Storage Temperature: Ambient temperature

L-Alanine, high purity

Arsenic	0.00015 %
Ash	0.15 %
Chloride	0.05 %
Heavy Metals	0.001 %
Identification	PASS
Iron	0.003 %
Loss on Drying	0.2 %
pH (5%, Water) @25 °C	5.5 - 7.0
Purity	99.0 %
Specific Rotation	+13.7 to +15.1 °
Sulfate	0.03 %

Cat. No.	Pk	Pack type
0106-100G	100 g	Plastic bottle for solids
0106-500G	500 g	Plastic bottle for solids

Albumin from bovine serum (BSA)

BSA , Bovine Albumin

CAS 9048-46-8
EINECS: 232-936-2
Storage Temperature: 2 - 8°C

Albumin from bovine serum (BSA) for biotechnology

Heat shock isolated bovine serum albumin (BSA) suitable for use in a wide range of molecular biology applications, including Western blotting. Nuclease and protease-free.

DNase	NONE
Heavy Metals (as Pb)	0.001 %
Iron	0.0005 %
Loss on Drying	5.0 %
pH (5%, Water) @25 °C	6.5 - 7.5
Protease	NONE
Purity	98.0 %
RNase	NONE

Cat. No.	Pk	Pack type
0332-25G	25 g	Plastic bottle for solids
0332-100G	100 g	Plastic bottle for solids
0332-500G	500 g	Plastic bottle for solids
0332-1KG	1 kg	Plastic bottle for solids

Albumin from bovine serum (BSA), crystals for biotechnology

Cold alcohol isolation suitable for sensitive biochemical and diagnostic assays. DNase and RNase free, virtually free of globulins and other interfering contaminants.

Ash	0.5 %
Chloride	<0.3 %
DNase	NONE
Heavy Metals	<0.005 %
Identification	PASS
Loss on Drying	5.0 %
pH (7%, Water) @25 °C	5.0 - 5.4
Protease	NONE
Purity (Electrophoresis)	99.0 %
RNase	NONE
Sodium	< 0.5 %

Cat. No.	Pk	Pack type
0903-5G	5 g	Plastic bottle for solids
0903-10G	10 g	Plastic bottle for solids

Albumin from bovine serum (BSA), fine powder for biotechnology

A heat shock isolation product provided as a fine, white powder in a salt free form (pH 5.2) for low salt applications.

Heavy metals	< 0.005 %
Loss on Drying	2.0 %
pH (2%, Water) @25 °C	4.9 - 5.3
Purity (Electrophoresis)	96.0 %
Solubility (2%, Water)	PASS

Cat. No.	Pk	Pack type
0175-25G	25 g	Plastic bottle for solids
0175-100G	100 g	Plastic bottle for solids

Albumin from bovine serum (BSA) for biotechnology

Heat shock isolated BSA with low endotoxin.

Endotoxins	1 EU/mL
Heavy metals (as Pb)	0.001 %
Loss on Drying	5.0 %
pH (5%, Water) @25 °C	6.5 - 7.5
Purity	98.0 %

Cat. No.	Pk	Pack type
N208-10G	10 g	Plastic bottle for solids

Albumin from bovine serum (BSA) for radioimmunoassay (RIA)

Cold alcohol isolation.

Albumin (By Electrophoresis)	98 %
Ash	2.0 %
Bovine IgG	NONE
Expiration Date	REPORT
Fatty Acids (Total)	0.2 mg/g
Heavy Metals (as Pb)	< 0.005 %
Loss on Drying	5.0 %
O.D.@550 nm (4%, Water)	0.3
pH (1%, 0.15M NaCl) @25 °C	6.8 - 7.2
Protein (Anhydrous)	96 %

Cat. No.	Pk	Pack type
E588-25G	25 g	Plastic bottle for solids
E588-100G	100 g	Plastic bottle for solids

Albumin from bovine serum (BSA) for biochemistry

A higher purity product than standard grade or Cohn fraction V material. It is negative for globulins that interfere in many assays.

Assay	Min. 98 %
IgG	Not detected
Moisture	Max. 4.5 %
pH range	6.7 to 7.2
Proteins	Min. 96 %
Ashes	Max. 1.5 %

Cat. No.	Pk	Pack type
422351S	100 g	Glass bottle

Albumin from bovine serum (BSA) protease free

A protease free grade albumin for RIA and ELISA applications, produced by a heat shock process in caprylic acid.

Assay	Min. 98 %
IgG	Not detected
Moisture	Max. 5.0 %
pH range	6.8 to 7.2
Proteases	Not detected

Cat. No.	Pk	Pack type
422361V	100 g	Glass bottle

Albumin from bovine serum (BSA) low in endotoxins

Produced by a heat shock process using sodium caprylate as a stabiliser with additional treatments including dialysis and deionisation.

Endotoxin (EU/mg)	Max. 2
Moisture	Max. 5 %
pH (1 %)	6.5 to 7.5
Proteins	Min. 97 %
Heavy metals (as Pb)	Max. 50 ppm
Ashes	Max. 2 %

Cat. No.	Pk	Pack type
422381B	100 g	Glass bottle

Albumin from bovine serum (BSA)

A standard grade albumin for basic applications, produced by a heat shock process in caprylic acid.

Colouration	Off white to pale brown
Albumin	Min. 98 %
Proteins	Min. 96 %
Moisture	Max. 5 %
pH	6.8 to 7.2

Cat. No.	Pk	Pack type
421501J	100 g	Glass bottle

Albumin from bovine serum (BSA) in aqueous solution

CAS 9048-46-8
EINECS: 232-936-2
Storage Temperature: 2 - 8°C

Albumin from bovine serum (BSA) in aqueous solution for biotechnology

Concentrated 20% BSA solution (Albumin, Bovine, Fraction V – Cold Alcohol Isolation) in 0,85% sodium chloride and contains 0,1% sodium azide (as a preservative for stability).

Cat. No.	Pk	Pack type
K720-50ML	50 ml	Plastic bottle

Albumin fraction V from bovine serum (BSA)

CAS 90604-29-8
EINECS: 292-322-5
Boiling Pt: 298 °C (1013 hPa)
Storage Temperature: 2 - 8°C

Albumin fraction V from bovine serum (BSA)

Assay (Proteins)	Min. 98 %
pH (20 °C; 2 %)	6.6 to 7.5
Ignition residue (SO_4)	Max. 3 %
Loss on drying (105 °C)	Max. 3 %
Fats	Max. 1.0 %

Cat. No.	Pk	Pack type
441554Y	25 g	Glass bottle
441555J	100 g	Glass bottle

Albumin fraction V from bovine serum (BSA)

A Cohn fraction V albumin produced by cold ethanol fractionation with minimum use of chemicals. Fatty acids and native sialic acid residues are preserved in this BSA.

Cat. No.	Pk	Pack type
422371X	100 g	Glass bottle

Albumin from chicken egg

Ovalbumin , Egg albumin

CAS 9006-59-1
EINECS: 232-692-7
Storage Temperature: 2 - 8°C

Albumin from chicken egg, powder TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
20771.236	250 g	Plastic bottle for solids

Alcian blue 8 GX

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 33864-99-2
EINECS: 251-705-7

$C_{56}H_{68}Cl_4CuN_{16}S_4$
Storage Temperature: Ambient temperature

VWR CHEMICALS Alcian blue 8 GX, high purity

Used to stain glucosaminoglycans and other acidic polysaccharides in tissue samples. Also used as a bacterial stain.

Em (610 nm, Water) 26000

Cat. No.	Pk	Pack type
0298-50G	50 g	Glass bottle
0298-100G	100 g	Glass bottle

Alconox® detergent

Storage Temperature: Ambient temperature

Alconox® detergent, powder

Cat. No.	Pk	Pack type
560437Q	1,818 kg	Plastic bag

Alginic acid sodium salt

See Sodium alginate p.431

Alizarin complexone

3,4-dihydroxyanthraquinon-2-ylmethyliminodi(acetic acid) , Alizarine-3-methylamine-N,N-diacetic acid

CAS 3952-78-1
EINECS: 223-544-2

$C_{19}H_{15}NO_8$
M.W. 385.35 g/mol
Melting Pt: 180 °C
Storage Temperature: Ambient temperature

Alizarin complexone TECHNICAL

Assay ..... Min. 88 %
Water ..... Max. 9 %

Cat. No.	Pk	Pack type
20118.081	1 g	Glass bottle

Alizarin S solution

NEW Alizarin S solution Reag. Ph. Eur. 1002601

Cat. No.	Pk	Pack type
87763.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Alizarine-3-methylamine-N,N-diacetic acid

See Alizarin complexone p.22

Alkaline phosphatase pH 9.5, for biotechnology

VWR CHEMICALS Alkaline phosphatase pH 9.5 for biotechnology

Enzyme that removes phosphate groups from nucleotides, proteins and alkaloids.

Cat. No.	Pk	Pack type
J840-4L	4 l	Bag-in-box (Cubitainer)

N-Allylthiourea

See Allylthiourea p.22

Allylthiourea

N-Allylthiourea , Tiosinamine

Danger
H301
P301+P310

CAS 109-57-9
EINECS: 203-683-5
UN: 2811
ADR 6.1,III

$H_2CCHCH_2NHC(S)NH_2$
M.W. 116.19 g/mol
Density: 1.219 g/cm³ (20 °C)
Boiling Pt: 191 °C (1013 hPa)
Melting Pt: 74 °C
Storage Temperature: Ambient temperature

Allylthiourea TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
28630.153	50 g	Plastic bottle for solids

Alum potassium

See Aluminium potassium sulphate dodecahydrate p.25

Aluminium standard solution, 10,000 mg/l Al in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7429-90-5
EINECS: 231-072-3
UN: 3264
ADR 8,III

Al
M.W. 26.98 g/mol
Density: 1.072 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Aluminium standard solution, 10,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3$) ARISTAR® standard for ICP

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455012E	100 ml	Plastic bottle
455014G	500 ml	Plastic bottle

Supplied with certificate of analysis.

Aluminium standard solution, 1,000 mg/l Al in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7429-90-5
EINECS: 231-072-3
UN: 3264
ADR 8,III

Al
M.W. 26.98 g/mol
Density: 1.02 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Aluminium standard solution, 1,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3.9H_2O$) ARISTAR® standard for ICP

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455002C	100 ml	Plastic bottle
455004E	500 ml	Plastic bottle

Supplied with certificate of analysis.

Aluminium standard solution, 1,000 mg/l Al in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86660.180	100 ml	Plastic bottle
86660.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Aluminium ammonium bis(sulphate) dodecahydrate

See Aluminium ammonium sulphate dodecahydrate..... p.23

Aluminium ammonium sulphate dodecahydrate

Aluminium ammonium bis(sulphate) dodecahydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7784-26-1
EINECS: 232-055-3

$AlNH_4(SO_4)_2 \cdot 12H_2O$
M.W. 453.33 g/mol
Density: 1.64 g/cm³ (20 °C)
Boiling Pt: 200 °C (1013 hPa)
Melting Pt: 93 °C

Aluminium ammonium sulphate dodecahydrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 50 ppm
Cl (Chloride)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21083.292	1 kg	Plastic bottle for solids

Aluminium chloride

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7446-70-0
Index 013-003-00-7
EINECS: 231-208-1
UN: 1726
ADR 8,II

$AlCl_3$
M.W. 133.34 g/mol
Density: liquid 1.31 g/cm³ (20 °C)
Boiling Pt: 180 °C (1013 hPa)
Melting Pt: 180 to 181 °C
Storage Temperature: Ambient temperature

Aluminium chloride, anhydrous GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Insolubility in water	Max. 100 ppm
Not precipitated by NH_4OH (as SO_4)	Max. 0.1 %
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
21031.293	1 kg	Glass bottle for solids

Aluminium chloride 40.6% aqueous solution with 0.55% sodium chloride

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7446-70-0
EINECS: 231-208-1
UN: 1726
ADR 8,II

$AlCl_3$
M.W. 133.34 g/mol
Storage Temperature: Ambient temperature

Aluminium chloride 40.6% aqueous solution with 0.55% sodium chloride Reag. Ph. Eur. 1002701

Cat. No.	Pk	Pack type
87764.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Aluminium chloride reagent

Aluminium chloride 2% in methanol:Acetic acid (95:5, v:v)

UN: 3286
ADR 3,I
Storage Temperature: Ambient temperature

Aluminium chloride reagent Reag. Ph. Eur. 1002702

Cat. No.	Pk	Pack type
87765.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Aluminium hydroxide

Warning
H319
P280 P305+P351+P338

CAS 21645-51-2
EINECS: 244-492-7

$Al(OH)_3$
M.W. 78 g/mol
Density: 2.42 g/cm³ (20 °C)
Melting Pt: 300 °C

Aluminium hydroxide TECHNICAL

Aluminium oxide ..... 60 to 70 %
Mean particle size ..... 40 to 70 µm

Cat. No.	Pk	Pack type
20980.364	5 kg	Bucket (Plastic)

Aluminium nitrate nonahydrate

Warning
H272 H319 H315
P210 P280 P302+P352 P305+P351+P338

CAS 7784-27-2
EINECS: 236-751-8
UN: 1438
ADR 5.1,III

$Al(NO_3)_3 \cdot 9H_2O$
M.W. 375.13 g/mol
Density: 1.72 g/cm³ (20 °C)
Melting Pt: 73 °C
Storage Temperature: Ambient temperature

Aluminium nitrate nonahydrate analytical reagent

Assay ..... Min. 98.0 %
Heavy metals (as Pb) ..... Max. 10 ppm
Insolubility in water ..... Max. 50 ppm
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.1 %
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
21050.260	500 g	Plastic bottle for solids
21050.298	1 kg	Plastic bottle for solids

Aluminium oxide

CAS 1344-28-1
EINECS: 215-691-6

Al_2O_3
M.W. 101.96 g/mol
Density: 3.94 g/cm³ (20 °C)
Boiling Pt: 2980 °C (1013 hPa)
Melting Pt: 2045 °C

Aluminium oxide TECHNICAL, calcined

Identification ..... Passes test

Cat. No.	Pk	Pack type
20985.361	5 kg	Bucket (Plastic)
20985.460	25 kg	Bucket (Plastic)

Aluminium oxide Durmax® for metallography, 15 minutes

Cat. No.	Pk	Pack type
20987.265	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 30 minutes

Cat. No.	Pk	Pack type
20981.265	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 1 hour

Cat. No.	Pk	Pack type
20991.260	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 3 hour

Cat. No.	Pk	Pack type
20992.263	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 12 hour

Cat. No.	Pk	Pack type
20993.266	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 24 hour

Cat. No.	Pk	Pack type
20994.260	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide Durmax® for metallography, 48 hour

Cat. No.	Pk	Pack type
20983.262	500 ml	Plastic bottle for solids

This product is not available in all countries. Please check with your local VWR International office or supplier.

Aluminium oxide activated basic

CAS 1344-28-1
EINECS: 215-691-6

Al_2O_3
M.W. 101.96 g/mol

Aluminium oxide activated basic for chromatography

Identification ..... Passes test
Particle size (< 48 µm) ..... Max. 10 %
Particle size (> 200 µm) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
21012.297	1 kg	Plastic bottle for solids

Aluminium potassium bis(sulphate) dodecahydrate

See Aluminium potassium sulphate dodecahydrate p.25

Aluminium potassium sulphate dodecahydrate

Alum potassium , Aluminium potassium bis(sulphate) dodecahydrate

CAS 7784-24-9
EINECS: 233-141-3

$AlK(SO_4)_2 \cdot 12H_2O$
M.W. 474.39 g/mol
Density: 1.72 g/cm³ (20 °C)
Melting Pt: 92.5 °C

Aluminium potassium sulphate dodecahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 20 ppm	NH_4 (Ammonium)	Max. 50 ppm
Fe (Iron)	Max. 5 ppm	Na (Sodium)	Max. 0.1 %
Pb (Lead)	Max. 5 ppm		

Cat. No.	Pk	Pack type
21110.296	1 kg	Plastic bottle for solids

Aluminium potassium sulphate dodecahydrate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
21098.293	1 kg	Plastic bottle for solids
21098.362	5 kg	Bucket (Plastic)

Aluminium sodium dioxide

See Sodium aluminate p.431

Aluminum sodium oxide

See Sodium aluminate p.431

Aluminium sulphate octadecahydrate

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 7784-31-8
EINECS: 233-135-0

$Al_2(SO_4)_3 \cdot 18H_2O$
M.W. 666.43 g/mol
Density: 1.69 g/cm³ (20 °C)
Melting Pt: 86 °C

Aluminium sulphate octadecahydrate AnalaR NORMAPUR® analytical reagent

The composition of the material may vary between 16-18 hydrate.

Assay (calculated on anhydrous)	51.0 to 59.0 %	Solution in water	Passes test
pH (20°C; 2 %)	2.5 to 4.0	Alkali and alkaline-earth metals	Max. 0.4 %
Heavy metals (as Pb)	Max. 20 ppm	Cl (Chloride)	Max. 50 ppm
NH_4 (Ammonium)	Max. 100 ppm	As (Arsenic)	Max. 3 ppm
Fe (Iron)	Max. 50 ppm		

Cat. No.	Pk	Pack type
100103M	500 g	Plastic bottle for solids
10010DF	25 kg	Plastic bottle

Aluminium sulphate tetradecahydrate

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 16828-12-9
EINECS: 233-135-0

$Al_2(SO_4)_3 \cdot 14H_2O$
M.W. 594.37 g/mol

Aluminium sulphate tetradecahydrate GPR RECTAPUR®

Assay (calculated as Al_2O_3)	16.5 to 17.5 %
Heavy metals (as Pb)	Max. 20 ppm
Not precipitated by NH_4OH (as SO_4)	Max. 0.3 %
Cl (Chloride)	Max. 100 ppm
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
21070.297	1 kg	Plastic bottle for solids

Aluminium sulphate tetradecahydrate, crystallized TECHNICAL

Assay (calculated as Al_2O_3) ..... Min. 16 %

Cat. No.	Pk	Pack type
21067.365	5 kg	Bucket (Plastic)

Aluminium trilactate

(±)-2-Hydroxypropanoic acid aluminium salt , (±)-2-Hydroxypropionic acid aluminium salt , (±)-Lactic acid aluminium salt , DL-Lactic acid aluminium salt

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 18917-91-4
EINECS: 242-670-9

$(H_3CCH(OH)COO)_3Al$
M.W. 294.19 g/mol
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

Aluminium trilactate TECHNICAL

Assay (calculated as Al)	Min. 8.6 %
Assay (on anhydrous substance)	Min. 94 %
Heavy metals (as Pb)	Max. 20 ppm
Water	Max. 5 %
Cl (Chloride)	Max. 0.04 %
SO_4 (Sulphate)	Max. 0.04 %
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
83861.230	250 g	Plastic bottle for solids

AMBERLITE® IRN-77, Ion exchange resin cationic type (H^+)

CAS 11128-94-2

AMBERLITE® IRN-77, Ion exchange resin cationic type (H^+)

Identification ..... Passes test

Cat. No.	Pk	Pack type
27362.296	1 kg	Plastic bottle for solids

Amidosulphonic acid

Aminosulphonic acid , Sulphamidic acid , Amidosulphonic acid

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 5329-14-6
Index 016-026-00-0
EINECS: 226-218-8
UN: 2967
ADR 8,III

H_3NO_3S
M.W. 97.1 g/mol
Density: 2.15 g/cm³ (20 °C)
Boiling Pt: 247 °C (1013 hPa)
Melting Pt: 205 °C
Storage Temperature: Ambient temperature

Amidosulphonic acid AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue	Max. 0.02 %	Cl (Chloride)	Max. 10 ppm
NO_3 (Nitrate)	Max. 20 ppm	SO_4 (Sulphate)	Max. 0.1 %
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
20672.234	250 g	Plastic bottle for solids

Amidosulphonic acid TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20671.297	1 kg	Plastic bottle for solids
20671.366	5 kg	Bucket (Plastic)
20671.468	25 kg	Bucket (Plastic)

Amino acids (reagents for the analysis of)

Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent p.322
Ninhydrin 0.5% in 1-butanol spray reagent for TLC p.323

Aminoacetic acid

See Glycine (H-Gly-OH) p.203

4-Aminoantipyrine

4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one , 4-Aminophenazone

Warning
H302
P301+P312

CAS 83-07-8
EINECS: 201-452-3

$C_{11}H_{13}N_3O$
M.W. 203.24 g/mol
Melting Pt: 107 to 109 °C
Storage Temperature: Ambient temperature

4-Aminoantipyrine analytical reagent

Assay ..... Min. 99.0 %
Suited for phenol reagent ..... Passes test
Melting point ..... 107 to 109 °C
Loss on drying (105°C) ..... Max. 0.5 %
Ignition residue (SO_4) ..... Max. 0.1 %

Cat. No.	Pk	Pack type
21161.122	10 g	Plastic bottle for solids
21161.188	100 g	Plastic bottle for solids

4-Aminoantipyrine TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
21160.185	100 g	Plastic bottle for solids

Aminobenzene

See Aniline p.47

4-Aminobenzenesulphonic acid

See Sulphanilic acid p.485

4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one

See 4-Aminoantipyrine p.26

2-Aminoethanol

See Ethanolamine p.177

N-2-Aminoethyl-1-naphthylamine dihydrochloride

N-(1-Naphthyl)ethylenediamine dihydrochloride

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1465-25-4
EINECS: 215-981-2

$C_{12}H_{16}Cl_2N_2$
M.W. 143.19 g/mol
Melting Pt: 188 to 190 °C
Storage Temperature: Ambient temperature

N-2-Aminoethyl-1-naphthylamine dihydrochloride analytical reagent

Assay (calculated on dried substance) ..... Min. 98.0 %
Suited for sulfonamides identification ..... Passes test
1-Naphthylamine ..... Max. 0.1 %
2-Naphthylamine ..... Max. 100 ppm
Water ..... Max. 5 %

Cat. No.	Pk	Pack type
25792.120	10 g	Plastic bottle for solids
25792.130	25 g	Plastic bottle for solids

N-2-Aminoethyl-1-naphthylamine dihydrochloride GPR RECTAPUR®

Assay (calculated on dried substance) ..... Min. 95.0 %

Cat. No.	Pk	Pack type
293044M	10 g	Plastic bottle for solids

4-Aminohippuric acid reagent

UN: 1170
ADR 3,II

$H_2NC_6H_4C(O)NHCH_2COOH$

4-Aminohippuric acid reagent Reag. Ph. Eur. 1003701

Cat. No.	Pk	Pack type
87973.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

2-Amino-2-(hydroxymethyl)propane-1,3-diol

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

2-Amino-2-(hydroxymethyl)-1,3-propanediol

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

L(+)-2-Aminopentanedioic acid

See L(+)-Glutamic acid p.200

(S)-(+)-2-Aminopentanedioic acid

See L(+)-Glutamic acid p.200

L(+)-2-Aminopentanedioic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

(S)-(+)-2-Aminopentanedioic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

4-Aminophenazone

See 4-Aminoantipyrine p.26

4-Aminophenol

4-Hydroxyaniline

Warning
H341 H302+H332 H410
P201 P281 P273 P304+P340 P309+P311

CAS 123-30-8
Index 612-128-00-X
EINECS: 204-616-2
UN: 2512
ADR 6.1,III
Flash Pt: 195 °C (closed cup)

$H_2NC_6H_4OH$
M.W. 109.13 g/mol
Density: 1.3 g/cm³ (20 °C)
Boiling Pt: 284 °C (1013 hPa)
Melting Pt: ~ 186 °C
Storage Temperature: Ambient temperature

4-Aminophenol, purified

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
21168.262	500 g	Plastic bottle for solids

(4-(4-Aminophenyl)(4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride

See Basic Fuchsin p.192

L(+)-1-Aminopropane-1,3-dicarboxylic acid

See L(+)-Glutamic acid p.200

(S)-(+)-1-Aminopropane-1,3-dicarboxylic acid

See L(+)-Glutamic acid p.200

L(+)-1-Aminopropane-1,3-dicarboxylic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

(S)-(+)-1-Aminopropane-1,3-dicarboxylic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

Aminosulphonic acid

See Amidosulphonic acid p.26

Ammonia (25 - 35%)

Danger
H314 H335 H400
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1336-21-6
Index 007-001-01-2
EINECS: 215-647-6
UN: 2672
ADR 8,III

NH_3
M.W. 35.05 g/mol
Density: 0.88 to 0.91 g/cm³ (20 °C)
Boiling Pt: 37.7 °C (1013 hPa)
Melting Pt: -57.5 °C
Storage Temperature: Ambient temperature

Ammonia 32% HiPerSolv CHROMANORM® for HPLC

Non-volatile residue ..... Max. 20 ppm
Fe (Iron) ..... Max. 0.2 ppm
Pb (Lead) ..... Max. 0.05 ppm
Transmittance (215 nm) (1 mol/l) ..... Min. 10 %
Transmittance (254 nm) (1 mol/l) ..... Min. 97 %

Cat. No.	Pk	Pack type
153312K	100 ml	Glass bottle

Ammonia solution about 32 % GPR RECTAPUR®

Assay ..... 30 to 33 %
Density (20/4) ..... 0.880 to 0.890
Evaporation residue ..... Max. 100 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 10 ppm
CO_3 (Carbonate) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 20 ppm
Fe (Iron) ..... Max. 1 ppm
Pb (Lead) ..... Max. 1 ppm
Conforms to BDH 27141 ..... Passes test

Cat. No.	Pk	Pack type
21192.298	1 l	Glass bottle
21192.323	2,5 l	Glass bottle SAFEBREAK
21192.367	5 l	Fluorinated plastic bottle

Ammonia 28% AnalaR NORMAPUR® analytical reagent

Assay	28.0 to 32.0 %	Colouration	Max. 10 APHA
Density (20/4)	0.880 to 0.910	Evaporation residue	Max. 10 ppm
Substances reducing $KMnO_4$ (as O)	Max. 4 ppm	Silica	Max. 10 ppm
Cl (Chloride)	Max. 0.5 ppm	CO_3 (Carbonate)	Max. 10 ppm
NO_2 (Nitrite)	Max. 2 ppm	PO_4 (Phosphate)	Max. 0.5 ppm
S (Sulphide)	Max. 0.1 ppm	SO_4 (Sulphate)	Max. 2 ppm
Al (Aluminium)	Max. 0.03 ppm	As (Arsenic)	Max. 0.01 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.02 ppm
Be (Beryllium)	Max. 0.01 ppm	Ca (Calcium)	Max. 0.3 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Hg (Mercury)	Max. 0.01 ppm
K (Potassium)	Max. 0.1 ppm	Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.05 ppm	Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm	Na (Sodium)	Max. 2.0 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm	Ti (Titanium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 0.02 ppm
Zr (Zirconium)	Max. 0.05 ppm	Conforms to BDH 10012	Passes test
Conforms to BDH 10440	Passes test		

Cat. No.	Pk	Pack type
21190.246	1 l	Glass bottle SAFEBREAK
21190.292	1 l	Glass bottle
21190.326	2,5 l	Glass bottle SAFEBREAK
21190.361	5 l	Fluorinated plastic bottle

Ammonia 28% GPR RECTAPUR®

Assay	28 to 32 %
Density (20/4)	0.880 to 0.910
Evaporation residue	Max. 0.02 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
21182.294	1 l	Glass bottle
21182.363	5 l	Fluorinated plastic bottle

Ammonia 28% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151931.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ammonia 28% SLSI 100 Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
56996823.	166 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ammonia 28% SLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152938.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ammonia 25% AnalaR NORMAPUR® analytical reagent

Assay	Min. 25.0 %	Evaporation residue	Max. 20 ppm
Substances reducing $KMnO_4$ (as O)	Max. 8 ppm	Total S (as SO_4)	Max. 1 ppm
Cl (Chloride)	Max. 0.5 ppm	CO_3 (as CO_2)	Max. 15 ppm
PO_4 (Phosphate)	Max. 1 ppm	Ca (Calcium)	Max. 1 ppm
Cd (Cadmium)	Max. 0.1 ppm	Cu (Copper)	Max. 0.1 ppm
Fe (Iron)	Max. 0.1 ppm	K (Potassium)	Max. 1 ppm
Mn (Manganese)	Max. 0.01 ppm	Na (Sodium)	Max. 2 ppm
Pb (Lead)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
1133.1000	1 l	Glass bottle
1133.2500	2,5 l	Glass bottle

Ammonia 25% GPR RECTAPUR®

Assay	Min. 25 %
Non-volatile residue	Max. 100 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 5 ppm
Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
271402T	2,5 l	Plastic bottle

Ammonia 25% TECHNICAL

Assay	24 to 26 %

Cat. No.	Pk	Pack type
21191.364	5 l	Fluorinated plastic bottle
21191.450	17 kg	Plastic drum

Ammonia (10 - < 25%)

Danger
H314 H335 H400
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1336-21-6
Index 007-001-01-2
EINECS: 215-647-6
UN: 2672
ADR 8,III

NH_3
M.W. 35.05 g/mol
Density: 0.92 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Ammonia 20% NORMATOM® for trace metal analysis

Assay	20 to 22 %	Colouration	Max. 10 APHA
Cl (Chloride)	Max. 0.5 ppm	PO4 (Phosphate)	Max. 0.05 ppm
SO_4 (Sulphate)	Max. 1 ppm	Ag (Silver)	Max. 0.5 ppb
Al (Aluminium)	Max. 1 ppb	As (Arsenic)	Max. 1 ppb
Au (Gold)	Max. 0.5 ppb	Ba (Barium)	Max. 0.1 ppb
Be (Beryllium)	Max. 0.1 ppb	Bi (Bismuth)	Max. 0.1 ppb
Ca (Calcium)	Max. 1 ppb	Cd (Cadmium)	Max. 0.5 ppb
Ce (Cerium)	Max. 0.1 ppb	Co (Cobalt)	Max. 0.5 ppb
Cr (Chromium)	Max. 0.5 ppb	Cs (Cesium)	Max. 0.1 ppb
Cu (Copper)	Max. 0.5 ppb	Dy (Dysprosium)	Max. 0.1 ppb
Er (Erbium)	Max. 0.1 ppb	Eu (Europium)	Max. 0.1 ppb
Fe (Iron)	Max. 1 ppb	Ga (Gallium)	Max. 0.1 ppb
Gd (Gadolinium)	Max. 0.1 ppb	Ge (Germanium)	Max. 0.1 ppb
Hg (Mercury)	Max. 0.1 ppb	Ho (Holmium)	Max. 0.2 ppb
In (Indium)	Max. 0.1 ppb	K (Potassium)	Max. 1 ppb
La (Lanthanum)	Max. 0.1 ppb	Li (Lithium)	Max. 0.1 ppb
Lu (Lutetium)	Max. 0.1 ppb	Mg (Magnesium)	Max. 1 ppb
Mn (Manganese)	Max. 0.5 ppb	Mo (Molybdenum)	Max. 0.5 ppb
Na (Sodium)	Max. 1 ppb	Nb (Niobium)	Max. 0.1 ppb
Nd (Neodymium)	Max. 0.1 ppb	Ni (Nickel)	Max. 0.5 ppb
Pb (Lead)	Max. 0.1 ppb	Pr (Praseodymium)	Max. 0.1 ppb
Rb (Rubidium)	Max. 0.1 ppb	Rh (Rhodium)	Max. 0.5 ppb
Sb (Antimony)	Max 0.5 ppb	Sc (Scandium)	Max. 0.1 ppb
Se (Selenium)	Max. 1 ppb	Sm (Samarium)	Max. 0.1 ppb
Sn (Tin)	Max. 0.5 ppb	Sr (Strontium)	Max. 0.1 ppb
Tb (Terbium)	Max. 0.1 ppb	Te (Tellurium)	Max. 0.1 ppb
Th (Thorium)	Max. 0.1 ppb	Ti (Titanium)	Max. 0.5 ppb
Tl (Thallium)	Max. 0.1 ppb	Tm (Thulium)	Max. 0.1 ppb
U (Uranium)	Max. 0.1 ppb	V (Vanadium)	Max. 0.5 ppb
W (Tungsten)	Max. 0.1 ppb	Y (Yttrium)	Max. 0.1 ppb
Yb (Ytterbium)	Max. 0.1 ppb	Zn (Zinc)	Max. 0.5 ppb
Zr (Zirconium)	Max. 0.1 ppb		

Cat. No.	Pk	Pack type
83870.270	500 ml	Plastic bottle

Ammonia 20% AnalaR NORMAPUR® analytical reagent

Assay	18.0 to 22.0 %	Colouration	Max. 10 APHA
Density (20/4)	0.910 to 0.930	Evaporation residue	Max. 10 ppm
Substances reducing $KMnO_4$ (as O)	Max. 4 ppm	Silica	Max. 10 ppm
Cl (Chloride)	Max. 0.5 ppm	CO_3 (Carbonate)	Max. 10 ppm
PO_4 (Phosphate)	Max. 0.5 ppm	S (Sulphur)	Max. 0.2 ppm
SO_4 (Sulphate)	Max. 20 ppm	Al (Aluminium)	Max. 0.03 ppm
As (Arsenic)	Max. 0.01 ppm	B (Boron)	Max. 0.05 ppm
Ba (Barium)	Max. 0.02 ppm	Be (Beryllium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.3 ppm	Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm	Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm	Ti (Titanium)	Max. 0.1 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 1 ppm
Zr (Zirconium)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
21188.294	1 l	Glass bottle
21188.363	5 l	Fluorinated plastic bottle

Ammonia 20% GPR RECTAPUR®

Assay	18 to 22 %
Density (20/4)	0.910 to 0.930
Evaporation residue	Max. 0.02 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 20 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
21180.242	1 l	Glass bottle SAFEBREAK
21180.297	1 l	Glass bottle
21180.366	5 l	Fluorinated plastic bottle
21180.446	20 l	Plastic drum

Ammonia 17% Reag. Ph. Eur. 1004701

Cat. No.	Pk	Pack type
87707.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonia 10%

Assay 9.0 to 11.0 %

Cat. No.	Pk	Pack type
190064V	1 l	Glass bottle

Ammonia (6 - 10 mol/l; 6 - 10 N)

Danger
H314 H335 H400
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1336-21-6
Index 007-001-01-2
EINECS: 215-647-6
UN: 2672
ADR 8,III

NH_3
M.W. 35.05 g/mol
Storage Temperature: Ambient temperature

Ammonia 6 mol/l (6 N) Reag. Ph. Eur. 1004702

Cat. No.	Pk	Pack type
87682.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonia (0.6 - < 3 mol/l; 0.6 - < 3 N)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 1336-21-6
Index 007-001-01-2
EINECS: 215-647-6
UN: 2672
ADR 8,III

NH_3
M.W. 35.05 g/mol
Storage Temperature: Ambient temperature

Ammonia 2 mol/l (2 N) Reag. Ph. Eur. 1004703

Cat. No.	Pk	Pack type
87766.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonia (0.06 - < 0.6 mol/l; 0.06 - < 0.6 N)

CAS 1336-21-6
Index 007-001-01-2
EINECS: 215-647-6

NH_3
M.W. 35.05 g/mol
Storage Temperature: Ambient temperature

Ammonia 0.1 mol/l (0.1 N) Reag. Ph. Eur. 1004704

Cat. No.	Pk	Pack type
87767.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium standard solution, 1,000 mg/l NH4 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III
Storage Temperature: Ambient temperature

Ammonium standard solution, 1,000 mg/l NH_4 in dil. nitric acid ARISTAR® standard for ion chromatography

NH_4 in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458192M	100 ml	Plastic bottle

Standard solution (250 ppm NH_4) for the preparation of Ammonium standard solution (2.5 ppm NH_4) Reag.Ph.Eur.; 5000301

NEW Standard solution (250 ppm NH_4) for the preparation of Ammonium standard solution (2.5 ppm NH_4) Reag.Ph.Eur.; 5000301

Cat. No.	Pk	Pack type
88084.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium acetate

Acetic acid ammonium salt

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 631-61-8
EINECS: 211-162-9
Flash Pt: 136 °C

$H_3CCOONH_4$
M.W. 77.08 g/mol
Density: 1.17 g/cm³ (20 °C)
Melting Pt: 114 °C
Storage Temperature: Ambient temperature

Ammonium acetate HiPerSolv CHROMANORM® for HPLC

Assay ..... Min. 98.0 %
pH (20°C; 5 %) ..... 6.5 to 7.5
Fe (Iron) ..... Max. 1 ppm
Pb (Lead) ..... Max. 1 ppm
Transmittance (254 nm) (1 mol/l) ..... Min. 98.0 %

Cat. No.	Pk	Pack type
153164R	250 g	Plastic bottle for solids

Ammonium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay ..... Min. 98.0 %
pH (25°C; 5 %) ..... 6.7 to 7.3
Ignition residue (SO_4) ..... Max. 100 ppm
Substances reducing $KMnO_4$ (as HCOOH) .. Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
SO_4 (Sulphate) ..... Max. 10 ppm
Cd (Cadmium) ..... Max. 0.5 ppm
Fe (Iron) ..... Max. 2 ppm
Pb (Lead) ..... Max. 0.5 ppm
Conforms to BDH 10013 ..... Passes test
Conforms to Reag. Ph.Eur. ..... Passes test

Appearance ..... Colourless crystals
Heavy metals (as Pb) ..... Max. 2 ppm
Insolubility in water ..... Max. 50 ppm
Water ..... Max. 2.0 %
NO_3 (Nitrate) ..... Max. 10 ppm
Ca (Calcium) ..... Max. 10 ppm
Cu (Copper) ..... Max. 0.5 ppm
Ni (Nickel) ..... Max. 0.5 ppm
Zn (Zinc) ..... Max. 0.5 ppm
Conforms to ACS ..... Passes test

Cat. No.	Pk	Pack type
21200.264	500 g	Plastic bottle for solids
21200.297	1 kg	Plastic bottle for solids
21200.366	5 kg	Bucket (Plastic)

Ammonium acetate for soil analysis

Assay ..... Min. 98.0 %
pH (20°C; 5 %) ..... 5.0 to 7.4
Heavy metals (as Pb) ..... Max. 2 ppm
Ignition residue (SO_4) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 10 ppm
NO_3 (Nitrate) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 10 ppm
Ca (Calcium) ..... Max. 5 ppm
Cu (Copper) ..... Max. 0.5 ppm
Fe (Iron) ..... Max. 2 ppm
K (Potassium) ..... Max. 1 ppm
Mg (Magnesium) ..... Max. 1 ppm
Na (Sodium) ..... Max. 1 ppm
Pb (Lead) ..... Max. 0.5 ppm
Zn (Zinc) ..... Max. 0.5 ppm

Cat. No.	Pk	Pack type
21199.361	5 kg	Bucket (Plastic)

Ammonium acetate GPR RECTAPUR®

Assay ..... Min. 97 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
21198.260	500 g	Plastic bottle for solids
21198.298	1 kg	Plastic bottle for solids
21198.367	5 kg	Bucket (Plastic)

Ammonium acetate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
437453A	250 g	Plastic bottle for solids

Ammonium bicarbonate

See Ammonium hydrogen carbonate p.34

Ammonium bifluoride

See Ammonium hydrogen difluoride p.35

Ammonium carbonate

Salt of hartshorn

Warning
H302
P301+P312

CAS 506-87-6
EINECS: 208-058-0

$(NH_4)_2CO_3$
M.W. 96.09 g/mol
Density: 1.5 g/cm³ (20 °C)
Melting Pt: 58 °C
Storage Temperature: Ambient temperature

Ammonium carbonate AnalaR NORMAPUR® analytical reagent

Mixture in approximatively equimolar ratio of ammonium carbamate $NH_4CO_2NH_2$ and ammonium hydrogen carbonate NH_4HCO_3.

Assay (NH_3) ..... 30.0 to 34.0 %
Ignition residue (SO_4) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
PO_4 (Phosphate) ..... Max. 10 ppm
As (Arsenic) ..... Max. 3 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Insolubility in water ..... Max. 100 ppm
NO_3 (Nitrate) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 20 ppm
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
21217.260	500 g	Plastic bottle for solids
21217.295	1 kg	Plastic bottle for solids

Ammonium carbonate Ph.Franç

Mixture in approximatively equimolar ratio of ammonium carbamate $NH_4CO_2NH_2$ and ammonium hydrogen carbonate NH_4HCO_3.

Assay (NH_3) ..... 30.0 to 34.0 %
Appearance ..... White crystalline powder
Identification A ..... Passes test
Identification B ..... Passes test
Identification C ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Cl (Chloride) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Sulphated ash ..... Max. 0.05 %

Cat. No.	Pk	Pack type
83516.290	1 kg	Plastic bottle for solids

Ammonium carbonate in aqueous solution

CAS 506-87-6
EINECS: 208-058-0

$(NH_4)_2CO_3$
Storage Temperature: Ambient temperature

Ammonium carbonate 1 mol/l in aqueous solution Reag. Ph. Eur. 1005201

Cat. No.	Pk	Pack type
87768.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium ceric nitrate

See Ammonium cerium (IV) nitrate p.31

Ammonium ceric sulphate dihydrate

See Ammonium cerium (IV) sulphate dihydrate p.31

Ammonium cerium (IV) nitrate

Ammonium ceric nitrate , Ammonium hexanitratocerate (IV) , Cerium (IV) ammonium nitrate , Diammonium hexanitratocerate

Danger
H272 H302 H318
P210 P280 P305+P351+P338 P309+P310

CAS 16774-21-3
EINECS: 240-827-6
UN: 1477
ADR 5.1,III

$(NH_4)_2Ce(NO_3)_6$
M.W. 548.22 g/mol
Density: 2.2 g/cm³ (20 °C)
Melting Pt: 107 to 108 °C
Storage Temperature: Ambient temperature

Ammonium cerium (IV) nitrate GPR RECTAPUR® ACS, ISO, Reag. Ph. Eur.

Assay ..... Min. 95 %
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.2 %
Cl (Chloride) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
22594.237	250 g	Plastic bottle for solids
22594.294	1 kg	Plastic bottle for solids

Ammonium cerium (IV) nitrate TECHNICAL

Assay ..... Min. 94 %

Cat. No.	Pk	Pack type
22595.297	1 kg	Plastic bottle for solids

Ammonium cerium (IV) nitrate in aqueous solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 16774-21-3
EINECS: 240-827-6

$(NH_4)_2Ce(NO_3)_6$

Ammonium cerium (IV) nitrate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
30483.295	1 l	Plastic bottle

Ammonium cerium (IV) sulphate dihydrate

Tetraammonium cerium tetrakis(sulphate) dihydrate , Ammonium ceric sulphate dihydrate , Cerium (IV) ammonium sulphate dihydrate

CAS 10378-47-9
EINECS: 231-567-4

$(NH_4)_2Ce(SO_4)_4.2H_2O$
M.W. 632.55 g/mol
Melting Pt: 130 °C

Ammonium cerium (IV) sulphate dihydrate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.0 %
Insolubility in diluted H_2SO_4 ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 50 ppm
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 10 ppm
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
21232.151	50 g	Plastic bottle for solids

Ammonium cerium (IV) sulphate dihydrate GPR RECTAPUR®

Assay ..... Min. 95 %
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.2 %
Cl (Chloride) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
22606.230	250 g	Plastic bottle for solids

Ammonium cerium (IV) sulphate in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7637-03-8
EINECS: 231-567-4
UN: 3264
ADR 8,III

$(NH_4)_2Ce(SO_4)_4$

Ammonium cerium (IV) sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Cat. No.	Pk	Pack type
2678.1000	1 l	Glass bottle

Ammonium chloride

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 12125-02-9
Index 017-014-00-8
EINECS: 235-186-4

NH_4Cl
M.W. 53.49 g/mol
Density: 1.5256 g/cm³ (20 °C)
Melting Pt: 335 °C
Storage Temperature: Ambient temperature

Ammonium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance)	99.8 to 100.5 %	Acidity or alkalinity	Passes test Ph.Eur.
Appearance of solution	Passes test Ph.Eur.	Bromides and iodides	Passes test Ph.Eur.
Identification A	Passes test Ph.Eur.	Identification B	Passes test Ph.Eur.
Solution S	Passes test Ph.Eur.	pH (25°C; 5 %)	4.5 to 5.5
Heavy metals (as Pb)	Max. 5 ppm	Ignition residue (SO_4)	Max. 100 ppm
Insolubility in water	Max. 50 ppm	Loss on drying (105°C; 2 h)	Max. 1.0 %
NO_3 (Nitrate)	Max. 5 ppm	PO_4 (Phosphate)	Max. 2 ppm
SO_4 (Sulphate)	Max. 20 ppm	Ca (Calcium)	Max. 5 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 2 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 5 ppm
Na (Sodium)	Max. 50 ppm	Ni (Nickel)	Max. 1 ppm
Pb (Lead)	Max. 1 ppm	Zn (Zinc)	Max. 2 ppm
Conforms to BDH 10017	Passes test	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
21236.267	500 g	Plastic bottle for solids
21236.291	1 kg	Plastic bottle for solids
21236.360	5 kg	Bucket (Plastic)

Ammonium chloride GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.1 %
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21235.297	1 kg	Plastic bottle for solids
21235.366	5 kg	Plastic bottle for solids
21235.468	25 kg	Bucket (Plastic)

Ammonium chloride Molecular biology grade

Assay	Min. 99.8 %
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Absorbance (260 nm) (0.1 mol/l)	Max. 0.03
Absorbance (280 nm) (0.1 mol/l)	Max. 0.02
Heavy metals (as Pb)	Max. 0.001 %
Insoluble substances	Passes test
pH (20 °C; 5 %)	4.5 to 5.5
Cu (Copper)	Max. 0.0002 %
Fe (Iron)	Max. 0.0002 %
Mg (Magnesium)	Max. 0.0005 %
Pb (Lead)	Max. 0.0001 %

Cat. No.	Pk	Pack type
437073P	250 g	Plastic bottle
437075R	1 kg	Plastic bottle

Ammonium chloride, crystallized TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
21224.368	5 kg	Bucket (Plastic)

Ammonium chloride (2 - 6 mol/l; < 2 - 6 N) in aqueous solution

CAS 12125-02-9

EINECS: 235-186-4

NH_4Cl

M.W. 53.49 g/mol

Storage Temperature: Ambient temperature

Ammonium chloride 2 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1005301

Cat. No.	Pk	Pack type
87769.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium chloride buffer solution pH 10.0

NEW Ammonium chloride buffer solution pH 10.0 Reag. Ph. Eur. 4007300

Cat. No.	Pk	Pack type
85739.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium citrate dibasic

See di-Ammonium hydrogen citrate p.35

Ammonium citrate tribasic

See tri-Ammonium citrate p.32

tri-Ammonium citrate

Ammonium citrate tribasic , Citric acid triammonium salt , Triammonium 2-hydroxypropane-1,2,3-tricarboxylate

Warning

H319 H335 H315

P280 P302+P352 P304+P340 P305+P351+P338

P309+P311

CAS 3458-72-8

EINECS: 222-394-5

$C_6H_{17}N_3O_7$

M.W. 243.22 g/mol

Density: 1 g/cm³ (25 °C)

Melting Pt: 185 °C

Storage Temperature: Ambient temperature

tri-Ammonium citrate AnalaR NORMAPUR® analytical reagent

Assay	98.5 to 101.0 %	Identification	Passes test
Reducing substances	Passes test	pH (20°C; 5 %)	6.0 to 7.5
Ignition residue (SO_4)	Max. 50 ppm	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 10 ppm	Cu (Copper)	Max. 1 ppm
Fe (Iron)	Max. 5 ppm	K (Potassium)	Max. 30 ppm
Na (Sodium)	Max. 40 ppm	Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
103013A	250 g	Plastic bottle for solids

tri-Ammonium citrate GPR RECTAPUR®

Assay	97 to 103 %
Identification	Passes test
pH (20°C; 5 %)	6.0 to 7.5
Ignition residue (SO_4)	Max. 0.05 %
Cl (Chloride)	Max. 100 ppm
Pb (Lead)	Max. 10 ppm

Cat. No.	Pk	Pack type
271534H	500 g	Plastic bottle for solids

Ammonium dichromate

Danger
H272 H350 H340 H360FD H330 H301 H372 H312
H314 H335 H334 H317 H410
P201 P210 P281 P284 P273 P301+P330+P331
P302+P352 P304+P340 P309+P310

CAS 7789-09-5
Index 024-003-00-1
EINECS: 232-143-1
UN: 1439
ADR 5.1,II

Restricted to professional users.

$(NH_4)_2Cr_2O_7$
M.W. 252.07 g/mol
Density: 2.15 g/cm³ (20 °C)
Melting Pt: 180 °C

Ammonium dichromate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
21242.292	1 kg	Plastic bottle for solids
21242.361	5 kg	Bucket (Plastic)

Ammonium dihydrogen phosphate

CAS 7722-76-1
EINECS: 231-764-5

$NH_4H_2PO_4$
M.W. 115.03 g/mol
Density: 1.8 g/cm³ (20 °C)
Melting Pt: 190 °C
Storage Temperature: Ambient temperature

Ammonium dihydrogen phosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (2.3 %)	About 4.2
pH (25°C; 5 %)	3.8 to 4.4	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 5 ppm
NO_3 (Nitrate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 10 ppm	Fe (Iron)	Max. 10 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 5 ppm
Na (Sodium)	Max. 50 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
21305.260	500 g	Plastic bottle for solids
21305.290	1 kg	Plastic bottle for solids

Ammonium dihydrogen phosphate, purified

Assay ..... Min. 97.5 %
Heavy metals (as Pb) ..... Max. 20 ppm
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
21303.293	1 kg	Plastic bottle for solids

Ammonium dihydrogen phosphate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
21302.368	5 kg	Bucket (Plastic)

Ammonium dihydrogen phosphate

See Ammonium dihydrogen phosphate p.33

Ammonium ethanedioate monohydrate

See di-Ammonium oxalate monohydrate p.38

Ammonium ferric sulphate dodecahydrate

See Ammonium iron (III) sulphate dodecahydrate p.36

Ammonium ferrous sulphate hexahydrate

See Ammonium iron (II) sulphate hexahydrate p.36

Ammonium fluoride

Danger
H301+H311+H331
P280 P302+P352 P304+P340 P309+P310

CAS 12125-01-8
Index 009-006-00-8
EINECS: 235-185-9
UN: 2505
ADR 6.1,III

NH_4F
M.W. 37.04 g/mol
Density: 1.0088 to 1.0096 g/cm³ (25 °C)
Melting Pt: 160 °C
Storage Temperature: Ambient temperature

Ammonium fluoride AnalaR NORMAPUR® analytical reagent

Assay	Min. 98 %	Ammonium hydrogen difluoride	Max. 0.5 %
Heavy metals (as Pb)	Max. 5 ppm	Water	Max. 5 %
Cl (Chloride)	Max. 10 ppm	SiF_6 (Hexafluorosilicate)	Max. 0.1 %
SO_4 (Sulphate)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 30 ppm	Na (Sodium)	Max. 80 ppm

Cat. No.	Pk	Pack type
21252.263	500 g	Plastic bottle for solids

Ammonium fluoride GPR RECTAPUR®

Assay ..... Min. 97 %
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
21251.260	500 g	Plastic bottle for solids

Ammonium formate

Formic acid ammonium salt

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 540-69-2
EINECS: 208-753-9

HCO_2NH_4
M.W. 63.06 g/mol
Density: 1.28 g/cm³ (25 °C)
Melting Pt: 119 to 121 °C
Storage Temperature: Ambient temperature

Ammonium formate AnalaR NORMAPUR® analytical reagent

Assay	Min. 97.0 %	Identification	Passes test
pH (20°C; 5 %)	6.0 to 7.0	Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm	SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 20 ppm		

Cat. No.	Pk	Pack type
21254.260	500 g	Plastic bottle for solids

Ammonium heptamolybdate tetrahydrate

Hexaammonium heptamolybdate tetrahydrate , Ammonium paramolybdate tetrahydrate , Ammonium molybdate (para) tetrahydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 12054-85-2
EINECS: 234-722-4

$(NH_4)_6Mo_7O_{24}\cdot 4H_2O$
M.W. 1235.86 g/mol
Density: 2.498 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Ammonium heptamolybdate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in water	Max. 50 ppm	Magnesium and alkaline earth metals	Max. 0.02 %
Cl (Chloride)	Max. 5 ppm	NO_3 (Nitrate)	Max. 20 ppm
$PO_4 + ASO_4 + SiO_4$ (as PO_4)	Max. 5 ppm	SO_4 (Sulphate)	Max. 50 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 100 ppm	Mg (Magnesium)	Max. 50 ppm
Na (Sodium)	Max. 100 ppm	Pb (Lead)	Max. 10 ppm
Conforms to BDH 10028	Passes test		

Cat. No.	Pk	Pack type
21276.185	100 g	Plastic bottle for solids
21276.260	500 g	Plastic bottle for solids
21276.298	1 kg	Plastic bottle for solids

Ammonium heptamolybdate tetrahydrate GPR RECTAPUR®

Assay	Min. 98.5 %
Heavy metals (as Pb)	Max. 50 ppm
PO_4 (Phosphate)	Max. 0.02 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
21275.262	500 g	Plastic bottle for solids

Ammonium heptamolybdate (10 - < 25%) in aqueous solution

CAS 12054-85-2
EINECS: 234-722-4

$(NH_4)_6Mo_7O_{24}$

Ammonium heptamolybdate 10% in aqueous solution Reag. Ph. Eur. 1005702

Cat. No.	Pk	Pack type
87770.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium heptamolybdate 10% in aqueous solution Reag. Ph. Eur. 1005703

Cat. No.	Pk	Pack type
87771.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium heptamolybdate in sulphuric acid (25-51%)

CAS 12054-85-2
EINECS: 234-722-4
UN: 2796
ADR 8,II

$(NH_4)_6Mo_7O_{24}$

Ammonium heptamolybdate 0.04 mol/l in sulphuric acid 50% Reag. Ph. Eur. 1086500

Cat. No.	Pk	Pack type
87947.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium heptamolybdate in sulphuric acid (≥ 95%)

Danger
H314 H400
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 12054-85-2
EINECS: 234-722-4
UN: 1830
ADR 8,II

$(NH_4)_6Mo_7O_{24}$
Storage Temperature: Ambient temperature

Ammonium heptamolybdate 0.004 mol/l in sulphuric acid 96% Reag. Ph. Eur. 1086400

Cat. No.	Pk	Pack type
87946.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium heptamolybdate 4% and ammonium metavanadate 0.1% in nitric acid 20%

UN: 2031
ADR 8,II

Ammonium heptamolybdate 4% and ammonium metavanadate 0.1% in nitric acid 20% Reag. Ph. Eur. 1056700

Cat. No.	Pk	Pack type
87872.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium hexanitratocerate (IV)

See Ammonium cerium (IV) nitrate p.31

Ammonium hydrogen carbonate

Ammonium bicarbonate

Warning
H302
P301+P312

CAS 1066-33-7
EINECS: 213-911-5

NH_4HCO_3
M.W. 78.05 g/mol
Density: 1.57 g/cm³ (20 °C)
Melting Pt: 35 °C

Ammonium hydrogen carbonate AnalaR NORMAPUR® analytical reagent

Assay	Min. 97.5 %	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 50 ppm	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm	Fe (Iron)	Max. 2 ppm

Cat. No.	Pk	Pack type
21219.292	1 kg	Plastic bottle for solids

Ammonium hydrogen carbonate GPR RECTAPUR®

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.05 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21218.298	1 kg	Plastic bottle for solids

di-Ammonium hydrogen citrate

Citric acid diammonium salt , Ammonium citrate dibasic , Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate

Warning
H319 H335
P280 P305+P351+P338

CAS 3012-65-5
EINECS: 221-146-3

$HOC(CO_2H)(CH_2CO_2NH_4)_2$
M.W. 226.19 g/mol
Density: 1.483 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

di-Ammonium hydrogen citrate AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 103.0 %	C_2O_4 (Oxalate)	Passes test
Heavy metals (as Pb)	Max. 5 ppm	Ignition residue (SO_4)	Max. 100 ppm
Insolubility in water	Max. 50 ppm	Total S (as SO_4)	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
21246.238	250 g	Plastic bottle for solids

di-Ammonium hydrogen citrate GPR RECTAPUR®

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.1 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
21245.361	5 kg	Bucket (Plastic)

Ammonium hydrogen difluoride

Ammonium bifluoride

Danger
H301 H314
P280 P301+P330+P331 P304+P340 P309+P310

CAS 1341-49-7
Index 009-009-00-4
EINECS: 215-676-4
UN: 1727
ADR 8,II

NH_4HF_2
M.W. 57.04 g/mol
Density: 0.8 g/cm³ (20 °C)
Melting Pt: 127 °C
Storage Temperature: Ambient temperature

Ammonium hydrogen difluoride AnalaR NORMAPUR® analytical reagent

Assay	Min. 98.5 %	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 0.02 %	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 10 ppm	Fe (Iron)	Max. 80 ppm

Cat. No.	Pk	Pack type
81000.260	500 g	Plastic bottle for solids

Ammonium hydrogen difluoride GPR RECTAPUR®

Assay	Min. 98.0 %
Heavy metals (as Pb)	Max. 0.03 %
Cl (Chloride)	Max. 0.05 %
SiF_6 (Hexafluorosilicate)	Max. 0.3 %
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
21262.360	5 kg	Bucket (Plastic)

Ammonium hydrogen difluoride TECHNICAL

Assay	Min. 97 %

Cat. No.	Pk	Pack type
21253.290	1 kg	Plastic bottle for solids
21253.368	5 kg	Bucket (Plastic)

di-Ammonium hydrogen orthophosphate

di-Ammonium hydrogen phosphate , Diammonium hydrogen orthophosphate , Ammonium monohydrogen phosphate , Ammonium phosphate dibasic , Ammonium hydrogen phosphate

CAS 7783-28-0
EINECS: 231-987-8

$(NH_4)_2HPO_4$
M.W. 132.06 g/mol
Density: 1.619 g/cm³ (20 °C)
Melting Pt: 185 °C
Storage Temperature: Ambient temperature

di-Ammonium hydrogen orthophosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (25°C; 5 %)	7.8 to 8.1
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	SO_4 (Sulphate)	Max. 40 ppm
NO_3 (Nitrate)	Max. 10 ppm	Fe (Iron)	Max. 10 ppm
K (Potassium)	Max. 10 ppm	Na (Sodium)	Max. 10 ppm

Cat. No.	Pk	Pack type
21311.234	250 g	Plastic bottle for solids
21311.291	1 kg	Plastic bottle for solids

di-Ammonium hydrogen orthophosphate TECHNICAL

Assay	Min. 97.5 %

Cat. No.	Pk	Pack type
21306.362	5 kg	Bucket (Plastic)

Ammonium hydrogen phosphate

See di-Ammonium hydrogen orthophosphate..... p.35

di-Ammonium hydrogen phosphate

See di-Ammonium hydrogen orthophosphate..... p.35

Ammonium iodide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 12027-06-4
EINECS: 234-717-7

NH_4I
M.W. 144.94 g/mol
Density: 2.51 g/cm³ (20 °C)
Melting Pt: 551 °C
Storage Temperature: Ambient temperature

Ammonium iodide GPR RECTAPUR®

Assay..... Min. 99 %
Heavy metals (as Pb)..... Max. 50 ppm
Ignition residue (SO_4)..... Max. 0.1 %
Cl + Br (as Cl)..... Max. 0.05 %
Fe (Iron)..... Max. 50 ppm

Cat. No.	Pk	Pack type
21267.264	500 g	Glass bottle for solids

Ammonium iron (III) citrate

CAS 1185-57-5
EINECS: 214-686-6

$C_6H_{(5+4y)}Fe_{(x)}N_{(y)}O_7$
Storage Temperature: Ambient temperature

Ammonium iron (III) citrate TECHNICAL

Assay (calculated as Fe)..... 14 to 16 %

Cat. No.	Pk	Pack type
83887.290	1 kg	Plastic bottle for solids
83887.360	5 kg	Bucket (Plastic)

Ammonium iron (II) sulphate hexahydrate

Ammonium ferrous sulphate hexahydrate , di-Ammonium iron (II) sulphate hexahydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7783-85-9
EINECS: 233-151-8

$(NH_4)_2Fe(SO_4)_2{\cdot}6H_2O$
M.W. 392.14 g/mol
Density: 1.864 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Ammonium iron (II) sulphate hexahydrate AnalaR NORMAPUR® analytical reagent

Assay..... Min. 99.0 %
Total P (Phosphorus)..... Max. 30 ppm
Ca (Calcium)..... Max. 10 ppm
Fe (III) (Iron)..... Max. 0.03 %
Mg (Magnesium)..... Max. 50 ppm
Na (Sodium)..... Max. 50 ppm
Zn (Zinc)..... Max. 50 ppm
pH (20°C; 5 %)..... 3.0 to 5.0
Cl (Chloride)..... Max. 10 ppm
Cu (Copper)..... Max. 10 ppm
K (Potassium)..... Max. 50 ppm
Mn (Manganese)..... Max. 0.05 %
Pb (Lead)..... Max. 10 ppm
Conforms to BDH 10022..... Passes test

Cat. No.	Pk	Pack type
24257.236	250 g	Plastic bottle for solids
24257.260	500 g	Plastic bottle for solids
24257.293	1 kg	Plastic bottle for solids

Ammonium iron (II) sulphate hexahydrate TECHNICAL

Assay..... Min. 98.5 %

Cat. No.	Pk	Pack type
24254.293	1 kg	Plastic bottle for solids

Ammonium iron (II) sulphate (0.035 - < 0.176 mol/l; 0.035 - < 0.176 N) in aqueous solution

CAS 10045-89-3
EINECS: 233-151-8

$(NH_4)_2Fe(SO_4)_2$
Storage Temperature: Ambient temperature

Ammonium iron (II) sulphate 0.12 mol/l (0.12 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

Not suitable for extended storage. Check strength before use.
Titer (20°C; real value 0.2 % accuracy)..... 0.1198 to 0.1202 mol/l

Cat. No.	Pk	Pack type
30884.291	1 l	Glass bottle

Ammonium iron (II) sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Not suitable for extended storage. Check strength before use.
Titer (20°C; real value 0.2 % accuracy)..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
30883.297	1 l	Glass bottle

Ammonium iron (II) sulphate 0.05 mol/l (0.05 N) in aqueous solution

Titer (20°C; real value 0.2 % accuracy)..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
30882.294	1 l	Glass bottle

Ammonium iron (III) sulphate dodecahydrate

Ammonium ferric sulphate dodecahydrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7783-83-7
EINECS: 233-382-4

$NH_4Fe(SO_4)_2{\cdot}12H_2O$
M.W. 482.2 g/mol
Density: 1.71 g/cm³ (20 °C)
Boiling Pt: 230 °C (1013 hPa)
Melting Pt: 39 to 41 °C
Storage Temperature: Ambient temperature

Ammonium iron (III) sulphate dodecahydrate AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 101.0 %	Insolubility in water	Max. 50 ppm
Substances not precipitated by NH_4OH	Max. 0.1 %	Cl (Chloride)	Max. 10 ppm
NO_3 (Nitrate)	Max. 100 ppm	Cu (Copper)	Max. 20 ppm
Fe (II) (Iron)	Max. 10 ppm	Mn (Manganese)	Max. 50 ppm
Pb (Lead)	Max. 20 ppm	Zn (Zinc)	Max. 30 ppm

Cat. No.	Pk	Pack type
21094.233	250 g	Plastic bottle for solids
21094.260	500 g	Plastic bottle for solids
21094.290	1 kg	Plastic bottle for solids

Ammonium iron (III) sulphate dodecahydrate TECHNICAL

Assay Min. 98 %

Cat. No.	Pk	Pack type
21092.293	1 kg	Plastic bottle for solids

di-Ammonium iron (II) sulphate hexahydrate

See Ammonium iron (II) sulphate hexahydrate p.36

Ammonium metavanadate

Ammonium monovanadate , Ammonium vanadium trioxide

Danger
H301 H332 H319 H335
P280 P304+P340 P305+P351+P338 P309+P310

CAS 7803-55-6
EINECS: 232-261-3
UN: 2859
ADR 6.1,II

NH_4VO_3
M.W. 116.98 g/mol
Density: 2.33 g/cm³ (20 °C)
Melting Pt: 200 °C

Ammonium metavanadate analytical reagent

Assay	Min. 99.0 %
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 50 ppm
Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
21369.186	100 g	Plastic bottle for solids

Ammonium molybdate (para) tetrahydrate

See Ammonium heptamolybdate tetrahydrate p.34

Ammonium molybdate solution R3

NEW

Ammonium molybdate solution R3 Reag. Ph. Eur. 1005704

Cat. No.	Pk	Pack type
87772.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium molybdate solution R4

NEW

Ammonium molybdate solution R4 Reag. Ph. Eur. 1005705

Cat. No.	Pk	Pack type
87773.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium monohydrogen phosphate

See di-Ammonium hydrogen orthophosphate p.35

Ammonium monovanadate

See Ammonium metavanadate p.37

Ammonium nitrate

Warning
H272
P210 P280

CAS 6484-52-2
EINECS: 229-347-8
UN: 1942
ADR 5.1,III

NH_4NO_3
M.W. 80.04 g/mol
Density: 1.73 g/cm³ (20 °C)
Boiling Pt: 230 °C (1013 hPa)
Melting Pt: 169 °C
Storage Temperature: Ambient temperature

Ammonium nitrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 98 %	pH (25°C; 5 %)	4.5 to 6.0
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Residue on ignition	Max. 100 ppm	Cl (Chloride)	Max. 3 ppm
NO_2 (Nitrite)	Max. 5 ppm	PO_4 (Phosphate)	Max. 5 ppm
SO_4 (Sulphate)	Max. 20 ppm	Ca (Calcium)	Max. 30 ppm
Fe (Iron)	Max. 2 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
21280.293	1 kg	Plastic bottle for solids

Ammonium nitrate GPR RECTAPUR®

Assay (calculated on anhydrous)	Min. 98.5 %
Heavy metals (as Pb)	Max. 10 ppm
PO_4 (Phosphate)	Max. 20 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21278.295	1 kg	Plastic bottle for solids
21278.364	5 kg	Bucket (Plastic)

Ammonium nitrate TECHNICAL

Assay (calculated on anhydrous) Min. 98.5 %

Cat. No.	Pk	Pack type
21277.361	5 kg	Bucket (Plastic)
21277.460	25 kg	Bucket (Plastic)

di-Ammonium oxalate monohydrate in aqueous solution

CAS 6009-70-7
EINECS: 214-202-3

$(NH_4)_2C_2O_4 \cdot H_2O$
Storage Temperature: Ambient temperature

Ammonium oxalate solution Reag. Ph. Eur. 1005901

Cat. No.	Pk	Pack type
87774.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

di-Ammonium oxalate monohydrate

Ammonium ethanedioate monohydrate , Oxalic acid ammonium salt monohydrate

Warning
H302+H312
P261 P302+P352 P304+P340 P312

CAS 6009-70-7
Index 607-007-00-3
EINECS: 214-202-3
UN: 3288
ADR 6.1,III

$(NH_4)_2C_2O_4 \cdot H_2O$
M.W. 142.11 g/mol
Density: ~ 1.5 g/cm³ (20 °C)
Boiling Pt: 70 °C (1013 hPa)
Melting Pt: 70 °C
Storage Temperature: Ambient temperature

di-Ammonium oxalate monohydrate AnalaR NORMAPUR® analytical reagent

Assay	99.5 to 101.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Ignition residue (SO_4)	Max. 0.02 %
Cl (Chloride)	Max. 5 ppm	SO_4 (Sulphate)	Max. 20 ppm
NO_3 (Nitrate)	Max. 20 ppm	Ca (Calcium)	Max. 20 ppm
Fe (Iron)	Max. 2 ppm	K (Potassium)	Max. 20 ppm
Mg (Magnesium)	Max. 10 ppm	Na (Sodium)	Max. 10 ppm

Cat. No.	Pk	Pack type
21289.236	250 g	Plastic bottle for solids
21289.293	1 kg	Plastic bottle for solids

di-Ammonium oxalate monohydrate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.1 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
21288.266	500 g	Plastic bottle for solids

Ammonium paramolybdate tetrahydrate

See Ammonium heptamolybdate tetrahydrate p.34

Ammonium peroxodisulphate (APS)

Danger
H272 H302 H319 H335 H315 H334 H317
P210 P280 P285 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 7727-54-0
Index 016-060-00-6
EINECS: 231-786-5
UN: 1444
ADR 5.1,III

$(NH_4)_2S_2O_8$
M.W. 228.2 g/mol
Density: 1.98 g/cm³ (20 °C)
Melting Pt: 120 °C
Storage Temperature: Ambient temperature

Ammonium peroxodisulphate (APS) AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 98.0 %	Heavy metals (as Pb)	Max. 10 ppm
Ignition residue	Max. 0.05 %	Insolubility in water	Max. 0.02 %
Cl (Chloride)	Max. 5 ppm	Fe (Iron)	Max. 10 ppm
Mn (Manganese)	Max. 2 ppm	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
21300.260	500 g	Plastic bottle for solids
21300.293	1 kg	Plastic bottle for solids

Ammonium peroxodisulphate (APS) GPR RECTAPUR®

Assay	Min. 97.5 %
Heavy metals (as Pb)	Max. 50 ppm
Cl (Chloride)	Max. 20 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
21299.366	5 kg	Plastic bottle for solids

Ammonium peroxodisulphate (APS), proteomics grade

Chloride & Chlorate	< 0.001 %
DNase	NONE
Electrophoresis	PASS
Heavy Metals (as Pb)	<0.005 %
Insolubles	0.005 %
Iron	< 0.001 %
Manganese	< 0.00005 %
Protease	NONE
Purity	98.0 %
Residue on Ignition	0.05 %
RNase	NONE
Titrable Free Acid	< 0.04 meq/g

Cat. No.	Pk	Pack type
M133-25G	25 g	Plastic bottle
M133-100G	100 g	Plastic bottle for solids

Ammonium peroxodisulphate (APS), tablets for biotechnology

Convenient tablet eliminates the need for weighing powder. Easily prepared without weighing. Add one tablet to 1.5 ml of water to make a 10% solution.

- Fast and easy polymerisation of acrylamide mixtures
- Odour-free and non-flammable
- Non-hazardous shipping

Dissolution Time (1 tablet/1 ml Water)	4 minutes
Polymerisation	30 minutes
Solubility (10%, Water)	PASS

Cat. No.	Pk	Pack type
K833-100TABS	100 Tab.	Plastic bottle

Ammonium persulphate

See Ammonium peroxodisulphate (APS) p.38

Ammonium phosphate dibasic

See di-Ammonium hydrogen orthophosphate p.35

Ammonium phosphate monobasic

See Ammonium dihydrogen phosphate p.33

Ammonium purpurate

See Murexide p.317

Ammonium rhodanide

See Ammonium thiocyanate p.40

Ammonium sulphate

CAS 7783-20-2
EINECS: 231-984-1

$(NH_4)_2SO_4$
M.W. 132.14 g/mol
Density: 1.78 g/cm³ (20 °C)
Melting Pt: 336 to 339 °C
Storage Temperature: Ambient temperature

Ammonium sulphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	pH (25°C; 5 %)	5.0 to 6.0
Heavy metals (as Pb)	Max. 5 ppm	Ignition residue (SO_4)	Max. 50 ppm
Insolubility in water	Max. 10 ppm	Loss on drying (105°C)	Max. 0.1 %
Cl (Chloride)	Max. 3 ppm	NO_3 (Nitrate)	Max. 10 ppm
PO_4 (Phosphate)	Max. 5 ppm	As (Arsenic)	Max. 0.2 ppm
Ca (Calcium)	Max. 10 ppm	Cd (Cadmium)	Max. 1 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 2 ppm
K (Potassium)	Max. 20 ppm	Mg (Magnesium)	Max. 5 ppm
Na (Sodium)	Max. 20 ppm	Pb (Lead)	Max. 2 ppm
Zn (Zinc)	Max. 1 ppm	Conforms to BDH 10033	Passes test
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
21333.296	1 kg	Plastic bottle for solids
21333.365	5 kg	Plastic bottle for solids

Ammonium sulphate Reag. Ph. Eur.

Assay	Min. 99.0 %
Appearance	White crystalline powder
pH (5 %)	4.5 to 6.0
Sulphated ash	Max. 0.1 %

Cat. No.	Pk	Pack type
85509.290	1 kg	Plastic bottle for solids

Ammonium sulphate GPR RECTAPUR®

Assay	Min. 99 %
Appearance	White crystalline powder
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.02 %
Cl (Chloride)	Max. 20 ppm
NO_3 (Nitrate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21332.293	1 kg	Plastic bottle for solids
21332.362	5 kg	Plastic bottle for solids

Ammonium sulphate Electran® Molecular biology grade

May be used for the precipitation or fractionation of proteins or for purification of antibodies. Useful for crystallographic analysis of nucleic acids and proteins.

Assay	Min. 99.5 %
Appearance	White crystalline powder
DNases (exo- and endonucleases)	Not detected
RNases	Not detected
Proteases	Not detected
pH (5 %)	5 to 6
Absorbance (260 nm) (0.1 mol/l)	Max. 0.01
Absorbance (280 nm) (0.1 mol/l)	Max. 0.01
NO_3 (Nitrate)	Max. 0.001 %
PO_4 (Phosphate)	Max. 0.0005 %
As (Arsenic)	Max. 0.0001 %
Ca (Calcium)	Max. 0.001 %
Cl (Chloride)	Max. 0.001 %
Cu (Copper)	Max. 0.0005 %
Fe (Iron)	Max. 0.0005 %
K (Potassium)	Max. 0.002 %
Mg (Magnesium)	Max. 0.0005 %
Na (Sodium)	Max. 0.002 %
Pb (Lead)	Max. 0.0001 %
Zn (Zinc)	Max. 0.0002 %

Cat. No.	Pk	Pack type
444445Q	1 kg	Bucket (Plastic)
444446R	5 kg	Bucket (Plastic)

Ammonium sulphate, ultrapure

May be used for the precipitation or fractionation of proteins or for purification of antibodies. Useful for crystallographic analysis of nucleic acids and proteins.

Arsenic	0.0001 %
Chloride	0.0005 %
DNase	NONE
Heavy Metals (as Pb)	0.0002 %
Insolubles	0.005 %
Iron	0.0005 %
Magnesium Test	NONE
pH (5%, Water) @25 °C	5.0 - 6.0
Phosphate	0.0005 %
Protease	NONE
Purity (Dry Basis)	99.5 %
Residue on Ignition	0.005 %
RNase	NONE
Selenium	0.0020 %

Cat. No.	Pk	Pack type
0191-1KG	1 kg	Plastic bottle for solids
0191-5KG	5 kg	Bucket (Plastic)
0191-10KG	10 kg	Bucket (Plastic)
0191-12KG	12 kg	Bucket (Plastic)
0191-50KG	50 kg	Plastic drum

Ammonium sulphate, proteomics grade

Arsenic	0.0001 %
Chloride	0.0005 %
DNase	NONE
Heavy Metals (as Pb)	0.0002 %
Insolubles	0.005 %
Iron	0.0005 %
Magnesium Test	NONE
pH (5%, Water) @25 °C	5.0 - 6.0
Phosphate	0.0002 %
Protease	NONE
Purity (Dry Basis)	99.5 %
Residue on Ignition	0.005 %
RNase	NONE
Selenium	0.0005 %

Cat. No.	Pk	Pack type
M105-1KG	1 kg	Plastic bottle for solids
M105-5KG	5 kg	Bucket (Plastic)

Ammonium sulphide (10 - 50%) in aqueous solution

Danger
H225 H314
EUH031
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 12135-76-1
EINECS: 235-223-4
UN: 2683
ADR 8,II

$(NH_4)_2S$

Ammonium sulphide 20% in aqueous solution AnalaR NORMAPUR® analytical reagent

Assay (as $(NH_4)2S$ from sulphide)	17 to 23 %	Ignition residue (SO_4)	Max. 100 ppm
Cl (Chloride)	Max. 0.02 %	CO_3 (Carbonate)	Max. 100 ppm

Cat. No.	Pk	Pack type
21354.298	1 l	Glass bottle

Ammonium sulphide 20% in aqueous solution GPR RECTAPUR®

Assay (as $(NH_4)2S$ from sulphide)	17 to 23 %
Ignition residue (SO_4)	Max. 0.05 %

Cat. No.	Pk	Pack type
21352.292	1 l	Glass bottle
21352.441	20 l	Plastic drum

Ammonium thiocyanate

Ammonium rhodanide

Warning
H302+H312+H332 H412
EUH032
P261 P273 P302+P352 P304+P340 P309+P311

CAS 1762-95-4
Index 615-004-00-3
EINECS: 217-175-6

NH_4SCN
M.W. 76.12 g/mol
Density: 1.305 g/cm³ (20 °C)
Melting Pt: 150 °C
Storage Temperature: Ambient temperature

Ammonium thiocyanate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 98.5 %	pH (20°C; 5 %)	4.2 to 5.8
Heavy metals (as Pb)	Max. 5 ppm	Ignition residue (SO_4)	Max. 0.025 %
Insolubility in water	Max. 50 ppm	Substances reducing iodine	Max. 0.4 %
Cl (Chloride)	Max. 50 ppm	S (Sulphide)	Max. 10 ppm
SO_4 (Sulphate)	Max. 100 ppm	Cu (Copper)	Max. 4 ppm
Fe (Iron)	Max. 1 ppm	Pb (Lead)	Max. 4 ppm
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
21344.237	250 g	Plastic bottle for solids
21344.294	1 kg	Plastic bottle for solids

Ammonium thiocyanate, purified

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
21342.297	1 kg	Plastic bottle for solids

Ammonium thiocyanate (< 3 mol/l; < 3 N) in aqueous solution

CAS 1762-95-4
EINECS: 217-175-6

NH_4SCN
Storage Temperature: Ambient temperature

Ammonium thiocyanate 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1006701

Cat. No.	Pk	Pack type
87775.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium thiocyanate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
31960.291	1 l	Glass bottle

Ammonium thiocyanate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31961.294	1 l	Plastic bottle
31961.328	2,5 l	Plastic bottle

Ammonium vanadate solution

NEW

Ammonium vanadate solution Reag. Ph. Eur. 1006801

Cat. No.	Pk	Pack type
87776.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ammonium vanadium trioxide

See Ammonium metavanadate p.37

Ammonium 5-(2,4,6-trioxoperhydropyrimidin-5-ylideneamino)barbiturate

See Murexide p.317

AMP (2-Amino-2-methylpropanol)

2-Amino-2-methyl-1-propanol

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 124-68-5
Index 603-070-00-6
EINECS: 204-709-8
Flash Pt: 67 °C

$(CH_3)_2C(NH_2)CH_2OH$
M.W. 89.14 g/mol
Density: 0.667 g/cm³ (20 °C)
Boiling Pt: 165 °C (1013 hPa)
Melting Pt: 18 to 26 °C
Storage Temperature: Ambient temperature

AMP (2-Amino-2-methylpropanol), high purity

5% water has been added to maintain liquidity at room temperature.

pH (0.1 M, Water) @25 °C	11.0 - 12.0
Purity (anhydrous)	98.5 %
Reassay Date	REPORT

Cat. No.	Pk	Pack type
0136-1L	1 l	Plastic bottle for solids
0136-4L	4 l	Plastic bottle for solids

Amphotericin B

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 1397-89-3
EINECS: 215-742-2

$C_{47}H_{73}NO_{17}$
Storage Temperature: -20°C

Amphotericin B for tissue culture

An antifungal polyene believed to act by altering membrane permeability. Susceptible organisms - yeasts and moulds. Recommended working concentration: 2.5 µg/ml.

Activity as provided	REPORT
Expiration Date	REPORT
Pyrogen	NONE
Solubility (2.5 mg/ml)	PASS

Cat. No.	Pk	Pack type
E437-100MG	100 mg	Vial
E437-1G	1 g	Vial

Amphotericin B for tissue culture

Alters membrane permeability. Working concentration: 2.5 µg/ml

Potency (Solubilized Amphotericin) ..... REPORT

Cat. No.	Pk	Pack type
K721-20ML	20 ml	Vial

Ampicillin sodium salt

Danger
H334 H317
P280 P261 P342+P311

CAS 69-52-3
EINECS: 200-708-1

$C_{16}H_{18}N_3NaO_4S$
Storage Temperature: 2 - 8°C

Ampicillin sodium salt for tissue culture, γ-irradiated

Aseptically prepared, gamma-irradiated. Tissue culture tested. 10 mg/ml solution. Working concentration: 50 µg/ml

Expiration Date ..... REPORT
pH (1%, Water) @25 °C ..... 8.0 - 10.0
Potency (Anhydrous) ..... 845 - 988 mcg/mg
Solubility (Vial Contents, 20 ml Water) ..... PASS
Sterile (gamma-irradiated) ..... PASS
USP Grade Ampicillin Sodium ..... PASS

Cat. No.	Pk	Pack type
E477-20ML	20 ml	Vial

Ampicillin sodium salt

Interferes with formation of bacterial cell wall. Working concentration: 50 µg/ml.

Cat. No.	Pk	Pack type
0339-EU-25G	25 g	Plastic bottle for solids
0339-EU-100G	100 g	Plastic bottle for solids

n-Amyl alcohol

See 1-Pentanol p.346

Amylodextrin

See Starch, soluble p.481

AnalaR NORMAPUR® ACS Reag Ph Eur

Description	Page	Pk	Cat. No.
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	1 l	20104.243
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	1 l	20104.298
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	2,5 l	20104.323
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	2,5 l	20104.334
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	5 l	20104.367
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	20 l	20104.447
Acetic acid glacial ACS, Reag. Ph. Eur. analytical reagent	2, 42	200 l	20104.551
Acetic anhydride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	5, 42	1 l	21390.293
Acetic anhydride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	5, 42	2,5 l	21390.330
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	1 l	20066.296
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	2,5 l	20066.321
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	2,5 l	20066.330
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	2,5 l	20066.423
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	5 l	20066.365
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	25 l	20066.467
Acetone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	7, 42	200 l	20066.558
Acetonitrile AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	10, 42	1 l	20071.294
Acetonitrile AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	10, 42	2,5 l	20071.328
Acetonitrile AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	10, 42	25 l	20071.460
Aluminium potassium sulphate dodecahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	25, 42	1 kg	21110.296
Ammonium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	30, 42	500 g	21200.264
Ammonium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	30, 42	1 kg	21200.297
Ammonium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	30, 42	5 kg	21200.366
Ammonium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	32, 42	500 g	21236.267
Ammonium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	32, 42	1 kg	21236.291
Ammonium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	32, 42	5 kg	21236.360
Ammonium dihydrogen phosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	33, 42	500 g	21305.260
Ammonium dihydrogen phosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	33, 42	1 kg	21305.290
Ammonium heptamolybdate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	34, 42	100 g	21276.185
Ammonium heptamolybdate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	34, 42	500 g	21276.260
Ammonium heptamolybdate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	34, 42	1 kg	21276.298
di-Ammonium hydrogen orthophosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	35, 42	250 g	21311.234
di-Ammonium hydrogen orthophosphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	35, 42	1 kg	21311.291
Ammonium nitrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	37, 42	1 kg	21280.293
Ammonium peroxodisulphate (APS) AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	38, 42	500 g	21300.260
Ammonium peroxodisulphate (APS) AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	38, 42	1 kg	21300.293
Ammonium sulphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	39, 42	1 kg	21333.296
Ammonium sulphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	39, 42	5 kg	21333.365
Ammonium thiocyanate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	40, 42	250 g	21344.237
Ammonium thiocyanate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	40, 42	1 kg	21344.294
Barium chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 59	500 g	21716.266
Barium chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 59	1 kg	21716.290
Barium chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 59	5 kg	21716.368
Barium hydroxide octahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 60	250 g	21687.232
Barium hydroxide octahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 60	1 kg	21687.298
1-Butanol AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 86	1 l	20810.298
1-Butanol AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 86	2,5 l	20810.323
tert-Butanol AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 87	1 l	20814.292
Calcium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent low in alkali, precipitated	42, 92	250 g	22300.233
Calcium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent low in alkali, precipitated	42, 92	1 kg	22300.290
Calcium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent low in alkali, precipitated	42, 92	25 kg	22300.460
Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 92	250 g	22317.230
Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 92	500 g	22317.260
Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 92	1 kg	22317.297
Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 92	2,5 kg	22317.320
Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 92	25 kg	22317.460
Copper (II) chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 123	250 g	23093.233
Copper (II) chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 123	1 kg	23093.290
Copper (II) sulphate pentahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 125	250 g	23174.233
Copper (II) sulphate pentahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 125	1 kg	23174.290
Copper (II) sulphate pentahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 125	5 kg	23174.360
Cyclohexane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 128	1 l	23224.293
Cyclohexane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 128	2,5 l	23224.327
Cyclohexane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 128	5 l	23224.362
Cyclohexane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 128	200 l	23224.550
Dichloromethane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 142	1 l	23366.293
Dichloromethane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 142	2,5 l	23366.327
Diethyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 145	1 l	23811.292
Diethyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 145	2,5 l	23811.326
Diethyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 145	5 l	23811.361
Diethyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 145	25 l	23811.463
Diisopropyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 147	1 l	24900.296
4-(Dimethylamino)benzaldehyde AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 148	50 g	23439.158
4-(Dimethylamino)benzaldehyde AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	42, 148	250 g	23439.238
N,N-Dimethylformamide AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 150	1 l	23466.298
N,N-Dimethylformamide AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 150	2,5 l	23466.323
Dodecamolybdophosphoric acid hydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 157	100 g	20616.184
EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 160	100 g	20302.180
EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 160	250 g	20302.236
EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 160	500 g	20302.260
EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 160	1 kg	20302.293
EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 160	25 kg	20302.464
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 173	1 l	20821.296
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 173	1 l	20821.310
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	42, 173	2,5 l	20821.321

Description	Page	Pk	Cat. No.
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 173	2,5 l	20821.330
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 173	5 l	20821.365
Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 173	25 l	20821.467
Ethyl acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. 1035301 analytical reagent	43, 180	1 l	23882.296
Ethyl acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. 1035301 analytical reagent	43, 180	2,5 l	23882.321
Ethyl acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. 1035301 analytical reagent	43, 180	2,5 l	23882.330
Ethyl acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. 1035301 analytical reagent	43, 180	25 l	23882.467
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 187, 311	1 l	20909.290
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 187, 311	2,5 l	20909.330
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 187, 311	5 l	20909.368
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 187	20 l	20909.448
Formic acid 99-100% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 191	1 l	20318.297
Formic acid 99-100% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 191	2,5 l	20318.320
Formic acid 99-100% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 191	2,5 l	20318.322
Formic acid 99-100% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 191	20 l	20318.446
n-Hexane AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 216	1 l	24577.298
n-Hexane AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 216	2,5 l	24577.323
n-Hexane AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 216	5 l	24577.367
n-Hexane AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 216	25 l	24577.460
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	1 l	20252.295
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	1 l	20252.244
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	1 l	20252.290
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	2,5 l	20252.324
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	2,5 l	20252.335
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	2,5 l	20252.420
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	5 l	20252.368
Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 225	20 l	20252.448
Hydroxylammonium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 233	250 g	24708.235
Hydroxylammonium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 233	1 kg	24708.292
Iodine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent, resublimed	43, 245	100 g	24757.187
Iodine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent, resublimed	43, 245	250 g	24757.234
Iodine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent, resublimed	43, 245	1 kg	24757.291
Iron (II) sulphate heptahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 252	250 g	24244.232
Iron (II) sulphate heptahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 252	1 kg	24244.298
Iron (III) chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 250	250 g	24208.237
Iron (III) chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 250	500 g	24208.260
Iron (III) nitrate nonahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 251	250 g	24175.233
Iron (III) nitrate nonahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 251	500 g	24175.260
Iron (III) nitrate nonahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 251	1 kg	24175.290
Isobutanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 253	1 l	20833.297
2,2,4-Trimethylpentane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 516	1 l	28781.291
2,2,4-Trimethylpentane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 516	2,5 l	28781.325
2,2,4-Trimethylpentane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 516	25 l	28781.460
Lithium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 268	250 g	25007.230
Lithium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 268	250 g	25012.237
Lithium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 268	500 g	25012.260
Lithium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	43, 268	5 kg	25012.363
Magnesium chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 273	500 g	25108.260
Magnesium chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 273	1 kg	25108.295
Manganese (II) chloride tetrahydrate AnalaR NORMAPUR® ACS analytical reagent	43, 278	250 g	25222.233
Manganese (II) chloride tetrahydrate AnalaR NORMAPUR® ACS analytical reagent	43, 278	1 kg	25222.290
Manganese (II) sulphate monohydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 279	250 g	25303.233
Manganese (II) sulphate monohydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 279	1 kg	25303.290
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	1 l	20847.240
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	1 l	20847.295
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	2,5 l	20847.307
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	2,5 l	20847.320
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	2,5 l	20847.422
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	5 l	20847.360
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	25 l	20847.466
Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent	43, 287	200 l	20847.557
Methyl ethyl ketone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 291	1 l	25642.291
Methyl ethyl ketone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 291	2,5 l	25642.325
4-Methyl-2-pentanone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 292	1 l	25652.295
4-Methyl-2-pentanone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 292	2,5 l	25652.320
Nickel (II) nitrate hexahydrate AnalaR NORMAPUR® ACS analytical reagent (max. 0.005% Co)	43, 321	250 g	25873.232
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	5 g	25905.107
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	50 g	25905.153
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	100 g	25905.180
Nitric acid 69% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 324	1 l	20425.242
Nitric acid 69% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 324	1 l	20425.297
Nitric acid 69% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 324	2,5 l	20425.322
Nitric acid 69% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 324	2,5 l	20425.420
Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 333	500 ml	20624.262
Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 333	1 l	20624.295
Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 333	2,5 l	20624.320
Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 333	2,5 l	20624.330
Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 333	2,5 l	20624.420
Oxalic acid dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 334	250 g	20562.234
Oxalic acid dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 334	500 g	20562.260
Oxalic acid dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 334	1 kg	20562.291
Perchloric acid 70% AnalaR NORMAPUR® ACS analytical reagent	43, 348	500 ml	20589.260
Perchloric acid 70% AnalaR NORMAPUR® ACS analytical reagent	43, 348	1 l	20589.247
Perchloric acid 70% AnalaR NORMAPUR® ACS analytical reagent	43, 348	1 l	20589.293
Perchloric acid 70% AnalaR NORMAPUR® ACS analytical reagent	43, 348	2,5 l	20589.327
Phenol, detached crystals AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 358	250 g	20599.231

Description	Page	Pk	Cat. No.
Phenol, detached crystals AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 358	500 g	20599.260
Phenol, detached crystals AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 358	1 kg	20599.297
Potassium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 371	500 g	26726.260
Potassium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 371	1 kg	26726.297
Potassium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 371	2,5 kg	26726.322
Potassium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 371	25 kg	26726.460
Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 372	250 g	26764.232
Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 372	500 g	26764.260
Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 372	1 kg	26764.298
Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 372	5 kg	26764.367
Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 372	25 kg	26764.460
Potassium dichromate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 373	250 g	26784.231
Potassium dichromate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 373	1 kg	26784.297
Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 375	250 g	26936.236
Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 375	500 g	26936.260
Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 375	1 kg	26936.293
Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 375	2,5 kg	26936.320
Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 375	25 kg	26936.460
Potassium hydroxide, pellets AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 381	500 g	26668.263
Potassium hydroxide, pellets AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 381	1 kg	26668.296
Potassium hydroxide, pellets AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 381	5 kg	26668.365
Potassium hydroxide, pellets AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 381	25 kg	26668.460
Potassium permanganate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 386	250 g	26910.237
Potassium permanganate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 386	1 kg	26910.294
Potassium peroxodisulphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 387	100 g	26915.187
Potassium peroxodisulphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 387	1 kg	26915.291
L(+)-Potassium sodium tartrate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 388	250 g	27068.233
L(+)-Potassium sodium tartrate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 388	1 kg	27068.290
Potassium sulphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 388	1 kg	26997.293
1-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 392	1 l	20861.294
1-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 392	2,5 l	20861.320
1-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 392	5 l	20861.363
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	1 l	20842.298
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	1 l	20842.312
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	2,5 l	20842.323
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	2,5 l	20842.330
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	5 l	20842.367
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	25 l	20842.460
2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 393	200 l	20842.550
Pyridine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 399	500 ml	27199.268
Pyridine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 399	1 l	27199.292
Pyridine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 399	2,5 l	27199.326
Sodium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	250 g	27653.235
Sodium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	500 g	27653.260
Sodium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	1 kg	27653.292
Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	250 g	27652.232
Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	500 g	27652.260
Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	1 kg	27652.298
Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	5 kg	27652.367
Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 430	25 kg	27652.460
Sodium carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 433	250 g	27771.233
Sodium carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 433	500 g	27771.260
Sodium carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 433	1 kg	27771.290
Sodium carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 433	5 kg	27771.360
Sodium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 434	500 g	27810.262
Sodium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 434	1 kg	27810.295
Sodium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 434	5 kg	27810.364
Sodium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 434	25 kg	27810.460
tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 436	250 g	27833.237
tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 436	500 g	27833.260
tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 436	1 kg	27833.294
tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 436	5 kg	27833.363
tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 436	25 kg	27833.460
tetra-Sodium diphosphate decahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 438	1 kg	28055.292
Sodium fluoride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 440	250 g	27860.231
Sodium fluoride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 440	1 kg	27860.297
Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	250 g	27778.236
Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	500 g	27778.260
Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	1 kg	27778.293
Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	5 kg	27778.360
Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	25 kg	27778.460
di-Sodium hydrogen phosphate, anhydrous AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	500 g	102494C
di-Sodium hydrogen phosphate, anhydrous AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	2,5 kg	102495D
di-Sodium hydrogen phosphate, anhydrous AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 442	25 kg	10249LT
Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 444	500 g	28244.262
Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 444	1 kg	28244.295
Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 444	5 kg	28244.364
Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 444	25 kg	28244.466
Sodium nitrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 451	250 g	27955.238
Sodium nitrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	44, 451	1 kg	27955.295
Sodium periodate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 453	100 g	27985.185
Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 457	250 g	28114.230
Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 457	500 g	28114.260
Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 457	1 kg	28114.296
Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 457	5 kg	28114.365
Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	44, 457	25 kg	28114.460

Description	Page	Pk	Cat. No.
Sodium sulphite AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	45, 458	500 g	28130.260
Sodium sulphite AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	45, 458	1 kg	28130.292
di-Sodium tetraborate decahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	45, 459	250 g	27727.231
di-Sodium tetraborate decahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	45, 459	1 kg	27727.297
di-Sodium tetraborate decahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent	45, 459	25 kg	27727.460
Sodium thiosulphate pentahydrate AnalaR NORMAPUR® ACS analytical reagent	45, 460	500 g	27910.260
Sodium thiosulphate pentahydrate AnalaR NORMAPUR® ACS analytical reagent	45, 460	1 kg	27910.291
Tetrahydrofuran AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 500	1 l	28551.296
Tetrahydrofuran AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 500	2,5 l	28551.321
Tetrahydrofuran AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 500	25 l	28551.460
Tin (II) chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 507	500 g	23742.260
Tin (II) chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 507	1 kg	23742.293
Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 510	1 l	28676.297
Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 510	2,5 l	28676.322
Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 510	5 l	28676.366
Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 510	25 l	28676.468
Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 510	200 l	28676.550
Trichloroacetic acid (glacial) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 512	100 g	20742.180
Trichloroacetic acid (glacial) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 512	250 g	20742.236
Trichloroacetic acid (glacial) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 512	1 kg	20742.293
Urea AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 527	250 g	28877.235
Urea AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 527	500 g	28877.260
Urea AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 527	1 kg	28877.292
Urea AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 527	5 kg	28877.361
Urea AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 527	25 kg	28877.460
Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 545	1 l	28975.291
Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 545	2,5 l	28975.325
Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 545	5 l	28975.360
Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 545	25 l	28975.462
Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 545	200 l	28975.553
Zinc chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 551	250 g	29156.231
Zinc chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 551	500 g	29156.260
Zinc chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 551	1 kg	29156.297
Zinc sulphate heptahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 552	250 g	29253.236
Zinc sulphate heptahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 552	500 g	29253.260
Zinc sulphate heptahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 552	1 kg	29253.293
Zinc sulphate heptahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	45, 552	25 kg	29253.460

Anhydrous solvents

A complete range of high purity anhydrous solvents packed in septum sealed 250 ml glass bottles. Produced from consistent quality raw materials under ISO 9001 conditions, these solvents are:

- Specifically purified by chemical treatment and glass distillation, to minimise impurities
- Filtered at 0.2 µm
- Bottled under nitrogen
- Very low evaporation residue

Description	Page	Pk	Cat. No.
Acetone, dehydrated (max. 0.01% H_2O)	6, 46	250 ml	83683.230
Acetonitrile, anhydrous (max. 0.001% H_2O)	10, 46	250 ml	83676.230
Acetonitrile, anhydrous (max. 0.003% H_2O)	10, 46	250 ml	83713.230
Acetonitrile, anhydrous (max. 0.003% H_2O)	10, 46	2,5 l	83713.320
Chloroform, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 107	1 l	22709.292
Dichloromethane, anhydrous (max. 0.001% H_2O)	46, 141	250 ml	83682.230
Dichloromethane, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 142	1 l	25630.290
Diethyl ether, anhydrous (max. 0.0025% H_2O)	46, 145	250 ml	83671.230
Dimethyl sulphoxide, anhydrous (max. 0.005% H_2O)	46, 151	250 ml	83673.230
Dimethyl sulphoxide, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 151	1 l	23488.294
N,N-Dimethylformamide, anhydrous (max. 0.005% H_2O)	46, 149	250 ml	83675.230
N,N-Dimethylformamide, dehydrated (max. 0.015% H_2O) for synthesis	46, 149	2,5 l	83691.320
1,4-Dioxane, anhydrous (max. 0.003% H_2O)	46, 153	250 ml	83674.230
1,4-Dioxane, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 153	1 l	23539.291
Ethyl acetate, anhydrous (max. 0.005% H_2O)	46, 179	250 ml	83681.230
Ethyl acetate, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 180	1 l	23881.293
n-Hexane, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 216	1 l	24603.290
Methanol, anhydrous (max. 0.002% H_2O)	46, 286	250 ml	83679.230
Methanol, anhydrous (max. 0.002% H_2O)	46, 286	500 ml	83679.260
Methanol, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 287	1 l	20856.296
Petroleum spirit 40-60°C, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 352	1 l	23849.292
2-Propanol, anhydrous (max. 0.003% H_2O)	46, 393	250 ml	83677.230
2-Propanol, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 393	1 l	20838.294
Pyridine, anhydrous (max. 0.003% H_2O)	46, 399	250 ml	83684.230
Pyridine, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 399	1 l	27197.295
Tetrahydrofuran, anhydrous (max. 0.003% H_2O)	46, 500	250 ml	83678.230
Tetrahydrofuran, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent	46, 500	1 l	28553.293
Toluene, anhydrous (max. 0.002% H_2O)	46, 510	250 ml	83680.230
Toluene, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 510	1 l	28681.295
Xylene (mixture of isomers), anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent	46, 545	1 l	28976.294

Aneurine hydrochloride

See Thiamine hydrochloride p.502

Aniline

Aminobenzene , Phenylamine

Danger
H351 H341 H301+H311+H331 H372 H318 H317 H400
P201 P281 P273 P302+P352 P304+P340 P305+P351+P338 P309+P310

CAS 62-53-3
Index 612-008-00-7
EINECS: 200-539-3
UN: 1547
ADR 6.1,II
Flash Pt: 76 °C

$C_6H_5NH_2$
M.W. 93.13 g/mol
Density: 1.019 g/cm³ (20 °C)
Boiling Pt: 184 °C (1013 hPa)
Melting Pt: -6.2 °C
Storage Temperature: Ambient temperature

Aniline AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %	Hydrocarbons	Passes test
Acidity or alkalinity	Max. 0.03 meq/g	Density (20/4)	1.021 to 1.023
Solidification point	-6.5 to -6.1 °C	Ignition residue (SO_4)	Max. 50 ppm
Nitrobenzene	Max. 100 ppm	Solubility in HCl 2 N	Min. 13 %
Water	Max. 0.1 %		

Cat. No.	Pk	Pack type
21423.231	250 ml	Glass bottle

Aniline GPR RECTAPUR®

Assay	Min. 98.5 %
Density (20/4)	1.021 to 1.023
Ignition residue (SO_4)	Max. 0.02 %

Cat. No.	Pk	Pack type
21422.294	1 l	Glass bottle

Aniline blue water soluble

Aniline blue WS , Disodium hydrogen aminomethyl[[4-[(sulphonatophenyl) amino]phenyl][4-[(sulphonatophenyl)imino]cyclohexa-2,5-dien-1-ylidene] methyl]benzenesulphonate

CAS 28631-66-5
EINECS: 249-113-9

$C_{32}H_{25}N_3Na_2O_9S_3$
M.W. 737.72 g/mol
Storage Temperature: Ambient temperature

Aniline blue water soluble TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
21999.183	100 g	Plastic bottle for solids

Aniline blue WS

See Aniline blue water soluble p.47

Aniline-4-sulphonic acid

See Sulphanilic acid p.485

Anion exchange membranes

Anion exchange membranes 125.00 mm x 125.00 mm

Cat. No.	Pk	Pack type
551642S	6	Cardboard carton

Anion multi component standard 1 aqueous solution

Anion multi component standard 1 aqueous solution ARISTAR® for ion chromatography

Cl	30 ppm
F	20 ppm
NO_3	100 ppm
PO_4	150 ppm
SO_4	150 ppm

Cat. No.	Pk	Pack type
458142C	100 ml	Plastic bottle

Anion multi component standard 2 aqueous solution

Anion multi component standard 2 aqueous solution ARISTAR® for ion chromatography

Br	400 ppm
Cl	200 ppm
F	100 ppm
NO_3	400 ppm
PO_4	600 ppm
SO_4	400 ppm

Cat. No.	Pk	Pack type
458152E	100 ml	Plastic bottle

Anion multi component standard 3 aqueous solution

Anion multi component standard 3 aqueous solution ARISTAR® for ion chromatography

Br	40 ppm
Cl	40 ppm
F	20 ppm
NO_2	40 ppm
NO_3	40 ppm
PO_4	40 ppm
SO_4	40 ppm

Cat. No.	Pk	Pack type
458164C	1 SET	Plastic bottle

Anion multi-component 4, for IC standard

NEW Anion multi-component 4, for IC standard

Br	50 ppm
Cl	50 ppm
F	25 ppm
NO_3	50 ppm
PO_4	50 ppm
SO_4	50 ppm

Cat. No.	Pk	Pack type
458174A	1 SET	Plastic bottle

Anisaldehyde solution

NEW Anisaldehyde solution Reag. Ph. Eur. 1007301

Cat. No.	Pk	Pack type
87777.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Anthracene

Warning
H410
P273

CAS 120-12-7
EINECS: 204-371-1
Flash Pt: 121 °C (closed cup)

$C_{14}H_{10}$
M.W. 178.23 g/mol
Density: 1.24 g/cm³ (20 °C)
Boiling Pt: 340 °C (1013 hPa)
Melting Pt: 111 to 112 °C
Storage Temperature: Ambient temperature

Anthracene, extra pure

Cat. No.	Pk	Pack type
122892W	100 mg	Glass ampoule

Antimony standard solution, 10,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-36-0
EINECS: 231-146-5
UN: 3264
ADR 8,III

Sb
M.W. 121.75 g/mol
Storage Temperature: Ambient temperature

Antimony standard solution, 10,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP-MS

Sb in 2 % HNO_3 tr. tartaric acid

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457002K	100 ml	Plastic bottle

Supplied with certificate of analysis.

Antimony standard solution, 1,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-36-0
EINECS: 231-146-5
UN: 3264
ADR 8,III

Sb
M.W. 121.75 g/mol
Storage Temperature: Ambient temperature

Antimony standard solution, 1,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP-MS

Sb in 2 % HNO_3 tr. tartaric acid

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456632H	100 ml	Plastic bottle

Supplied with certificate of analysis.

Antimony standard solution, 1,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP

Sb in HNO_3 2% tr. tartaric acid

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455022G	100 ml	Plastic bottle

Supplied with certificate of analysis.

Antimony standard solution, 1,000 mg/l Sb in 5% nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-36-0
EINECS: 231-146-5
UN: 3264
ADR 8,III

Sb
Storage Temperature: Ambient temperature

Antimony standard solution, 1,000 mg/l Sb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Tested according to ISO 17025

Cat. No.	Pk	Pack type
86707.180	100 ml	Plastic bottle
86707.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Real value +/- 0.3%

Antimony (III) chloride

Antimony trichloride

Danger
H314 H335 H411
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 10025-91-9
Index 051-001-00-8
EINECS: 233-047-2
UN: 1733
ADR 8,II

$SbCl_3$
M.W. 228.12 g/mol
Density: 3.14 g/cm³ (20 °C)
Boiling Pt: 223.5 °C (1013 hPa)
Melting Pt: 73 °C
Storage Temperature: Ambient temperature

Antimony (III) chloride AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Insolubility in ethanol	Max. 200 ppm
Insolubility in HCl 10 N	Max. 50 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 50 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 20 ppm	K (Potassium)	Max. 50 ppm
Na (Sodium)	Max. 50 ppm	Pb (Lead)	Max. 30 ppm

Cat. No.	Pk	Pack type
21470.186	100 g	Glass bottle

Antimony (III) potassium oxitartrate trihydrate

(+)-Antimony potassium L-tartrate trihydrate , (R,R)-(+)-Antimony potassium tartrate trihydrate , (R,R)-(+)-Tartaric acid antimony potassium salt trihydrate , L(+)-Antimony potassium tartrate trihydrate , L(+)-Tartaric acid antimony potassium salt trihydrate , Antimony potassium L(+)-tartrate trihydrate

Warning
H302+H332 H411
P261 P273 P304+P340 P309+P311

CAS 28300-74-5
Index 051-003-00-9
EINECS: 229-436-1
UN: 1551
ADR 6.1,III

$C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$
M.W. 667.88 g/mol
Density: 2.6 g/cm³ (20 °C)
Melting Pt: 100 °C

Antimony (III) potassium oxitartrate trihydrate GPR RECTAPUR®

Assay	Min. 99.0 %
Cl (Chloride)	Max. 100 ppm
As (Arsenic)	Max. 0.025 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21486.237	250 g	Plastic bottle for solids

Antimony trichloride solution

NEW Antimony trichloride solution Reag. Ph. Eur. 1007701

Cat. No.	Pk	Pack type
87779.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Antimony (III) chloride solution

NEW Antimony (III) chloride solution R1 Reag. Ph. Eur. 1007702

Cat. No.	Pk	Pack type
87780.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Antimony trichloride

See Antimony (III) chloride p.48

Antipain dihydrochloride

CAS 37682-72-7

$C_{27}H_{44}N_{10}O_6 \cdot 2HCl$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Antipain dihydrochloride, ultrapure

A reversible cysteine and serine protease inhibitor of trypsin, papain and cathepsin A and B. Slightly inhibits plasmin.

Loss on Drying	5 %
Solubility (0.01 M, Water)	PASS

Cat. No.	Pk	Pack type
J581-5MG	5 mg	Glass bottle

VWR CHEMICALS Antipain dihydrochloride, proteomics grade

Loss on Drying	5 %
Protease	NONE
Solubility (0.01 M, Water)	PASS

Cat. No.	Pk	Pack type
M181-5MG	5 mg	Glass bottle

AProtinin (Trypsin inhibitor, pancreatic basic)

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 9087-70-1
EINECS: 232-994-9

$C_{284}H_{432}N_{84}O_{79}S_7$
Storage Temperature: 2 - 8°C

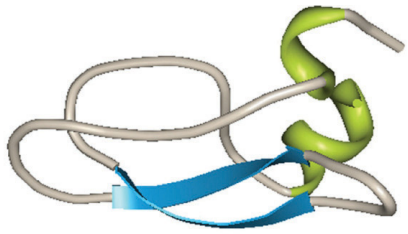
VWR CHEMICALS Aprotinin (Trypsin inhibitor, pancreatic basic), high purity

A competitive and reversible serine protease inhibitor of chymotrypsin, trypsin, kallikrein and plasmin. Not an inhibitor of Factor Xa and thrombin.

Activity	4500 KIU/mg
Purity (HPLC)	PASS

Cat. No.	Pk	Pack type
E429-10MG	10 mg	Glass bottle
E429-50MG	50 mg	Glass bottle

VWR CHEMICALS AProtinin (Trypsin inhibitor, pancreatic basic) (from bovine lung), proteomics grade



Crystal structure of aprotinin and its complex with sucrose octasulfate reveal multiple modes of interactions with implications for heparin binding. PDB 3LDJ. Yang, I.S., Kim, T.G., Park, B.S., Cho, K.J., Lee, J.H., Park, Y., Kim, K.H. (2010) *Biochem. Biophys. Res. Commun.* **397**(3), 429–435.

A competitive and reversible serine protease inhibitor of chymotrypsin, trypsin, kallikrein and plasmin. Not an inhibitor of Factor Xa and thrombin.

Activity	≤ 4500 KIU/mg
Purity (HPLC)	PASS

Cat. No.	Pk	Pack type
M167-10MG	10 mg	Glass bottle

APS/TEMED

APS/TEMED, tablets for biotechnology

A pre-measured tablet for preparation of a working APS/TEMED solution. Each tablet prepares 1 ml of working solution when dissolved in 1 ml distilled, deionised water. This solution is stable for one week at room temperature.

Cat. No.	Pk	Pack type
N310-100TAB	100 Tab.	Plastic bottle

APS

See Ammonium peroxodisulphate (APS)..... p.38

L(+)-Arabinose

CAS 5328-37-0
EINECS: 226-214-6

$C_5H_{10}O_5$
M.W. 150.13 g/mol
Density: 1.585 g/cm³ (20 °C)
Boiling Pt: 331 °C (1013 hPa)
Melting Pt: 158 to 160 °C
Storage Temperature: Ambient temperature

L(+)-Arabinose GPR RECTAPUR®

Assay	Min. 99 %
Melting point	154 to 157 °C
Specific optical rotation (10 %; water)	103 to 105 °
Ignition residue (SO_4)	Max. 0.1 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
21513.130	25 g	Plastic bottle for solids

Aroclor 1242 (PCB-mixture, 42% chlorinated) (1,000 - < 10,000 µg/ml) in hexane

Danger
H225 H361f H304 H373 H315 H336 H411
P201 P210 P243 P281 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 53469-21-9
UN: 1208
ADR 3,II
Flash Pt: -22 °C
Storage Temperature: Ambient temperature

Aroclor 1242 (PCB-mixture, 42% chlorinated) 1,000 µg/ml in hexane

Cat. No.	Pk	Pack type
122792T	1 ml	Glass ampoule

Aroclor 1260 (PCB-mixture, 60% chlorinated) (< 100 µg/ml) in isooctane

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 11096-82-5
UN: 1262
ADR 3,II
Storage Temperature: Ambient temperature

Aroclor 1260 (PCB-mixture, 60% chlorinated) 35 µg/ml in isooctane

Cat. No.	Pk	Pack type
122732H	1 ml	Glass ampoule

Arsenic standard solution, 10,000 mg/l As in dil. nitric acid

Danger
H350 H301+H331 H412
P201 P281 P273 P304+P340 P309+P310

CAS 7440-38-2
EINECS: 231-148-6
UN: 3264
ADR 8,III

Restricted to professional users.

As
M.W. 74.922 g/mol
Storage Temperature: Ambient temperature

Arsenic standard solution, 10,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP-MS

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457012M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Arsenic standard solution, 10,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455052M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Arsenic standard solution, 1,000 mg/l As in dil. nitric acid

Danger
H350 H319 H315
P201 P281 P302+P352 P305+P351+P338 P308+P313

CAS 7440-38-2
EINECS: 231-148-6
UN: 3264
ADR 8,III

Restricted to professional users.

As
M.W. 74.922 g/mol
Density: 1.01 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Arsenic standard solution, 1,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP-MS

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456642J	100 ml	Plastic bottle

Supplied with certificate of analysis.

Arsenic standard solution, 1,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455042K	100 ml	Plastic bottle
455044M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Arsenic standard solution, 1,000 mg/l As in dil. nitric acid AVS TITRINORM® standard for AAS

Tested according to ISO 17025

Cat. No.	Pk	Pack type
86661.180	100 ml	Plastic bottle
86661.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Real value +/- 0.3%

Arsenite solution

NEW

Arsenite solution Reag. Ph. Eur. 1008301

Cat. No.	Pk	Pack type
87781.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

L(+)-Ascorbic acid

Acidum ascorbicum

CAS 50-81-7
EINECS: 200-066-2

$C_6H_8O_6$
M.W. 176.13 g/mol
Density: 1.694 g/cm³ (20 °C)
Boiling Pt: 553 °C (1013 hPa)
Melting Pt: 190 to 192 °C
Storage Temperature: Ambient temperature

L(+)-Ascorbic acid AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 100.5 %
Appearance of solution (50 g/l; water)	Passes test
Melting point	187 to 192 °C
Specific optical rotation (10 %; water)	20.5 to 21.5 °
Spec. optical rotation (25 °C; 10 % water)	20.5 to 21.5 °
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.05 %
Loss on drying (105°C)	Max. 0.1 %
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 20 ppm
Ca (Calcium)	Max. 50 ppm
Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 2 ppm
Pb (Lead)	Max. 10 ppm
Conforms to BDH 10303	Passes test

Cat. No.	Pk	Pack type
20150.184	100 g	Plastic bottle for solids
20150.231	250 g	Plastic bottle for solids
20150.290	1 kg	Plastic bottle for solids

L(+)-Ascorbic acid USP, Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	White crystalline powder
Identification A	Passes test USP
Identification B	Passes test Ph. Eur.
Identification B	Passes test USP
Identification C	Passes test Ph. Eur.
Solution S	Passes test
Appearance of solution	Passes test
Specific optical rotation	20.5 to 21.5 °
Impurity E (Oxalic acid)	Max. 0.2 %
Related substances	Passes test Ph. Eur.
Cu (Copper)	Max. 5.0 ppm
Fe (Iron)	Max. 2.0 ppm
Heavy metals (as Pb)	Max. 10 ppm
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83568.180	100 g	Plastic bottle for solids
83568.290	1 kg	Plastic bottle for solids
83568.360	5 kg	Plastic bottle for solids
83568.460	25 kg	Bucket (Plastic)

L(+)-Ascorbic acid TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
20155.237	250 g	Plastic bottle for solids
20155.294	1 kg	Plastic bottle for solids

Ascorbic acid solution

NEW

Ascorbic acid solution Reag. Ph. Eur. 1008401

Cat. No.	Pk	Pack type
87782.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

L(+)-Ascorbic acid sodium salt

See Sodium L(+)-ascorbate p.432

L(+)-Asparagine

(S)-(+)-Asparagine

CAS 70-47-3
EINECS: 200-735-9

$H_2NCOCH_2CH(NH_2)CO_2H$
M.W. 132.12 g/mol
Boiling Pt: 343 °C (1013 hPa)
Melting Pt: 234 to 235 °C
Storage Temperature: Ambient temperature

L(+)-Asparagine, high purity

Animal-free amino acid. Polar. Amide.

Cat. No.	Pk	Pack type
94341-100G	100 g	Plastic bottle for solids
94341-500G	500 g	Plastic bottle for solids

L(+)-Aspartic acid

(S)-(+)-Aspartic acid , (S)-(+)-2-Amino-1,4-butanedioic acid , L(+)-2-Amino-1,4-butanedioic acid , Asp , D , H-Asp-OH

CAS 56-84-8
EINECS: 200-291-6

$C_4H_7NO_4$
M.W. 133.1 g/mol
Density: 1.6613 g/cm³ (13 °C)
Boiling Pt: 311 °C (1013 hPa)
Melting Pt: 251 °C
Storage Temperature: Ambient temperature

L(+)-Aspartic acid, high purity

Animal-free amino acid. Polar. Acidic.

Loss on Drying..... ≤ 0.2 %
Purity..... ≤ 98 %

Cat. No.	Pk	Pack type
0192-500G	500 g	Plastic bottle for solids
0192-1KG	1 kg	Plastic bottle for solids

ASTM Colour Standard Sample (A1-A7)

Storage Temperature: Ambient temperature

NEW ASTM Colour Standard Sample A1

Cat. No.	Pk	Pack type
84834.180	100 ml	Glass bottle
84834.260	500 ml	Glass bottle

NEW ASTM Colour Standard Sample A3

Cat. No.	Pk	Pack type
84796.180	100 ml	Glass bottle
84796.260	500 ml	Glass bottle

NEW ASTM Colour Standard Sample A5

Cat. No.	Pk	Pack type
84797.180	100 ml	Glass bottle
84797.260	500 ml	Glass bottle

NEW ASTM Colour Standard Sample A7

Cat. No.	Pk	Pack type
84798.180	100 ml	Glass bottle
84798.260	500 ml	Glass bottle

ASTM mixes

Atrazine

Warning
H373 H317 H411
P280 P273 P302+P352 P309+P311

CAS 1912-24-9
Index 613-068-00-7
EINECS: 217-617-8
UN: 3077
ADR 9,III

$C_8H_{14}ClN_5$
M.W. 215.69 g/mol
Density: 1.2 g/cm³ (20 °C)
Boiling Pt: 369 °C (1013 hPa)
Melting Pt: 171 to 174 °C
Storage Temperature: Ambient temperature

Atrazine, extra pure

Cat. No.	Pk	Pack type
123542H	10 mg	Glass ampoule

Autoclave deodorant

This autoclave deodorant improves the working environment and neutralises odours associated with autoclaving. The capsule releases its contents automatically as the autoclave heats up.

- Easy to use

Description	Pk	Cat. No.
Eucalyptus and mint fragrance	100	320101.100
Apple fragrance	100	320201.100
Lemon fragrance	100	320301.100
Floral fragrance	100	320401.100
Peach fragrance	100	320501.100

Autoclave Deodoriser Capsules, Decon

Gelatine capsules containing highly concentrated deodorising materials for convenience, hygiene and practicality. Decon Autoclave Deodoriser Capsules are specially formulated to neutralise the pungent malodours which can occur when autoclaving equipment and instruments soiled with organic matter.
Each capsule contains ~1 ml of liquid deodoriser. One capsule can neutralise the malodours of an autoclave with ~200 litre capacity.

Pk	Cat. No.
100	481-0083
500	481-0084

This product is not available in all countries. Please check with your local VWR International office or supplier.

Increase the chance of saving your eye with the world's smallest eye emergency department.

If there has been an accident, the first thing you need to do is to quickly flush away the harmful chemicals and restore the pH value of your eye. Cederroth's buffered eye wash gives a better chance of saving your eye than normal sodium chloride solution. As well as diluting and flushing out the eye, the liquid neutralises alkali and acid splashes (the effect is normally stronger on alkalis than acids).This is why Cederroth Eye Wash has been recommended by eye specialists in a study that compared the effect of different rinsing solutions on alkalis[1].

For more information, visit **www.firstaid.cederroth.com**

CEDERROTH

1) Rihawi et al., Graefe's arch. Clin. Exp. ophtalmol. (2006) 244:845-854

Auxiliary products

Description	Page	Pk	Cat. No.
Glass balls, 2.5 - 3.5 mm	55, 198	500 g	332124G
Strong glass rods to open either glass or polyethylene Convol Normadose ampoules.	55, 198	10	238-0000
PTFE tape	55, 396	1	332362S
Safepak® PP Natural 500 ml bottles	55, 413	3	332493F
Safepak® PP Natural 1000 ml bottles	55, 413	3	332497J
Safepak® PP Natural 100 ml bottles	55, 413	6	332491D
Spillage absortion granules, typically 1 - 3,15 mm	55, 465	2,5 kg	332377C
Spillage granules, Algosol	55, 465	10 kg	99910.414
Multipurpose refill, SPILL-X®	55, 465	1	121-0009
Caustic refill, SPILL-X®, 6 bottle set	55, 465	1	121-0011
Acid refill, SPILL-X®, 6 bottle set (1 kg)	55, 465	6	121-0010
Solvent refill, SPILL-X®, 6 bottle set	55, 465	1 Set	121-0012
Formaldehyde refill, SPILL-X-FP®, 6 bottle set	55, 465	1 Set	121-0013
Alconox® detergent, powder	22, 55	1,818 kg	560437Q
Aluminium oxide Durmax® for metallography, 15 minutes	24, 55	500 ml	20987.265
Aluminium oxide Durmax® for metallography, 30 minutes	24, 55	500 ml	20981.265
Aluminium oxide Durmax® for metallography, 1 hour	24, 55	500 ml	20991.260
Aluminium oxide Durmax® for metallography, 3 hour	24, 55	500 ml	20992.263
Aluminium oxide Durmax® for metallography, 12 hour	24, 55	500 ml	20993.266
Aluminium oxide Durmax® for metallography, 24 hour	24, 55	500 ml	20994.260
Aluminium oxide Durmax® for metallography, 48 hour	24, 55	500 ml	20983.262
Beeswax white TECHNICAL	55, 61	500 g	22841.265
Beeswax yellow TECHNICAL	55, 61	500 g	22842.268
Boiling stones ('Anti-Bumping'), granules	55, 70	250 g	330093Y
Canada balsam TECHNICAL	55, 96	25 g	21776.137
Canada balsam TECHNICAL	55, 96	100 g	21776.183
Carborundum TECHNICAL 0.037 mm	55, 97	1 kg	22540.298
Carborundum TECHNICAL 0.105 mm	55, 97	1 kg	22505.297
Carborundum TECHNICAL 0.210 mm	55, 97	1 kg	22499.295
Carborundum TECHNICAL 0.500 mm	55, 97	1 kg	22495.292
Carborundum TECHNICAL 1.190 mm	55, 97	1 kg	22490.295
Carborundum TECHNICAL 1.680 mm	55, 97	1 kg	22488.297
Carboxymethyl cellulose sodium salt, medium viscosity TECHNICAL	55, 98	1 kg	22525.296
Celite® 545, filter aid TECHNICAL	55, 99	1 kg	22552.290
Celite® Hyflo® Super Cel, filter aid TECHNICAL	55, 99	5 kg	24718.365
Charcoal activated, powder Ph. Eur.	55, 104, 354	100 g	26009.186
Charcoal activated, powder Ph. Eur.	55, 104, 354	5 kg	26009.360
Charcoal activated vegetable, powder TECHNICAL	55, 104	1 kg	22637.293
Charcoal activated, granulated for gas adsorption	55, 104	1 kg	22631.293
Charcoal activated, granulated for gas adsorption	55, 104	5 kg	22631.362
Charcoal activated, granulated for gas adsorption	55, 104	20 kg	22631.460
Chromic-sulphuric acid mixture (0.8% chromium (VI) oxide in sulphuric acid 95%) TECHNICAL	55, 110	1 l	25333.247
Chromic-sulphuric acid mixture (0.8% chromium (VI) oxide in sulphuric acid 95%) TECHNICAL	55, 110	2,5 l	25333.327
Colophony, lumps TECHNICAL	55, 117	5 kg	23017.366
Grease TECHNICAL for taps and sockets	55, 205	25 g	24513.141
Teepol® L	55, 266	20 l	560116C
Teepol® Bleach	55, 313	20 l	331827D
Molecular sieve A3 (0.3 nm, 3 Å), extruders TECHNICAL 1.6 mm	55, 314	1 kg	28463.292
Molecular sieve A4 (0.4 nm, 4 Å), extruders TECHNICAL 1.6 mm	55, 314	1 kg	28464.295
Molecular sieve A4 (0.4 nm, 4 Å), extruders TECHNICAL 1.6 mm	55, 314	5 kg	28464.364
Molecular sieve A5 (0.5 nm, 5 Å), extruders TECHNICAL 1.6 mm	55, 314	1 kg	28465.298
Oil of castor GPR RECTAPUR®	55, 331	1 l	24667.290
Oil of castor GPR RECTAPUR®	55, 331	5 l	24667.368
Paraffin, highly liquid, colourless GPR RECTAPUR®	55, 339	2,5 l	294365H
Paraffin, liquid GPR RECTAPUR®	55, 339	1 l	24679.291
Paraffin, liquid GPR RECTAPUR®	55, 339	2,5 l	24679.320
Paraffin, liquid GPR RECTAPUR®	55, 339	5 l	24679.360
Paraffin, liquid TECHNICAL	55, 339	1 l	24677.294
Paraffin, liquid TECHNICAL	55, 339	5 l	24677.363
Paraffin, solidification point 52-54°C, pellets TECHNICAL	55, 338	1 kg	26155.294
Paraffin, solidification point 58-60°C, granules TECHNICAL	55, 338	1 kg	26154.291
Grease 90 VOLTALEF® 90	55, 366	100 g	24510.185
Oil 10 S VOLTALEF®	55, 366	100 g	24627.188
RHODOVIOL® 25/140	55, 368	1 kg	20954.295
Pumice stone, granules analytical reagent, washed	55, 396	1 kg	26398.293
Pumice stone, granules analytical reagent, washed	55, 396	5 kg	26398.362
Pumice stone, powder TECHNICAL	55, 396	5 kg	26396.365
Quartz, wool TECHNICAL	55, 401	50 g	24950.152
Sand, Fontainebleau TECHNICAL	55, 415	1 kg	27460.295
Sand, Fontainebleau TECHNICAL	55, 415	5 kg	27460.364
Sand (sea sand) TECHNICAL, washed with sulphuric acid	55, 415	1 kg	27461.298
Sand (sea sand) TECHNICAL, washed with sulphuric acid	55, 415	5 kg	27461.360
Silica gel, powder TECHNICAL	55, 418	1 kg	24973.297
Silica gel, granules TECHNICAL	55, 419	1 kg	27613.294
Silica gel, granules Chameleon® C 2,5-6 mm drying agent	55, 419	1 kg	83000.290
Silica gel, granules Chameleon® C 2,5-6 mm drying agent	55, 419	5 kg	83000.360
Silica gel, granules Chameleon® C 1-3 mm drying agent	55, 419	500 g	83001.260
Silica gel, granules Chameleon® C 1-3 mm drying agent	55, 419	1 kg	83001.290
Silica gel, granules Chameleon® C 1-3 mm drying agent	55, 419	5 kg	83001.360
Silica gel, granules Chameleon® C 2-6 mm drying agent	55, 419	500	87185.2500
Silicone oil 47 V 1000 RHODORSIL®	55, 421	250 ml	27263.237
Silicone oil 47 V 350	55, 421	1 l	83851.290
Silicone oil 47 V 350	55, 421	5 l	83851.360
Silicone oil TECHNICAL for oil baths	55, 422	5 l	24610.363
Silicone grease TECHNICAL for high vacuum	55, 425	50 g	331353N

Description	Page	Pk	Cat. No.
Sodium hydroxide 5 mol concentrated aqueous solution CLININORM®	56, 446	1 l	31625.293
Sodium hydroxide 5 mol concentrated aqueous solution CLININORM®	56, 446	5 l	31625.362
Talc TECHNICAL	56, 492	5 kg	28454.360
Turkey Red Oil	56, 524	25 l	56049CK
Tween® 20 (Polysorbate)	56, 525	500 ml	663684B
Vacuum oil for pump TECHNICAL	56, 531	5 l	9930.5000

* Multipurpose SPILL-X® kit contains 2× SPILL-X-A® acid, 2× SPILL-X-C® caustic and 2× SPILL-X-S® solvent agents.

Avidin

CAS 1405-69-2
EINECS: 215-783-6
Storage Temperature: -20°C

Avidin (from hen egg white), reagent grade

A 66 kDa glycoprotein containing four identical subunits with high binding affinity for biotin.

Activity ..... 10 U/mg
Protein ..... 95.0 %
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
0866-5MG	5 mg	Glass bottle

Azinphos-methyl

O,O-Dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate

Danger
H300+H330 H311 H317 H410
P280 P284 P273 P302+P352 P304+P340 P309+P310

CAS 86-50-0
Index 015-039-00-9
EINECS: 201-676-1
UN: 2811
ADR 6.1,II

$C_{10}H_{12}N_3O_3PS_2$
M.W. 317.33 g/mol
Density: 1.44 g/cm^3 (20 °C)
Boiling Pt: 401 °C (1013 hPa)
Melting Pt: 73 °C

Azinphos-methyl, extra pure

Cat. No.	Pk	Pack type
123562L	10 mg	Glass ampoule

Azomethine H sodium salt

Sodium hydrogen 4-hydroxy-5-(salicylideneamino)naphthalene-2,7-disulphonate , 8-Hydroxy-1-(salicylideneamino)naphthalene-3,6-disulphonic acid 6-sodium salt , Azomethine-H monosodium salt

CAS 5941-07-1
EINECS: 227-698-1

$C_{17}H_{12}NNaO_8S_2$
M.W. 445.41 g/mol
Melting Pt: Min. 200 °C
Storage Temperature: Ambient temperature

Azomethine H sodium salt analytical reagent

Suited for boron spectrophotometry ..... Passes test
Loss on drying (105°C) ..... Max. 2.0 %
A (236 nm) (0.05 %; buffer pH 5.1) ..... Min. 1200

Cat. No.	Pk	Pack type
21645.124	10 g	Plastic bottle for solids

Baird Parker agar

See Microbiology

Baird Parker

See Microbiology

Barium standard solution, 10,000 mg/l Ba in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-39-3
EINECS: 231-149-1
UN: 3264
ADR 8,III

Ba
M.W. 137.33 g/mol
Storage Temperature: Ambient temperature

Barium standard solution, 10,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP

($Ba(NO_3)_2$ in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455072Q	100 ml	Plastic bottle

Supplied with certificate of analysis.

Barium standard solution, 1,000 mg/l Ba in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-39-3
EINECS: 231-149-1
UN: 3264
ADR 8,III

Ba
M.W. 137.33 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Barium standard solution, 1,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP-MS

$Ba(NO_3)_2$ in 2% HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456652L	100 ml	Plastic bottle

Supplied with certificate of analysis.

Barium standard solution, 1,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP

$Ba(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455062X	100 ml	Plastic bottle
455064Q	500 ml	Plastic bottle

Supplied with certificate of analysis.

Barium standard solution, 1,000 mg/l Ba in dil. nitric acid AVS TITRINORM® standard for AAS

Tested according to ISO 17025

Cat. No.	Pk	Pack type
86664.180	100 ml	Plastic bottle
86664.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Real value +/- 0.3%

Barium bis(4-anilinobenzenesulphonate)

See Barium diphenylamine-4-sulphonate..... p.60

Barium carbonate

Warning
H302
P301+P312

CAS 513-77-9
Index 056-003-00-2
EINECS: 208-167-3
UN: 1564
ADR 6.1,III

$BaCO_3$
M.W. 197.34 g/mol
Density: 3.89 g/cm³ (20 °C)
Melting Pt: 1350 °C
Storage Temperature: Ambient temperature

Barium carbonate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Oxidising substances (as NO_3)	Max. 50 ppm
S (Sulphur)	Max. 10 ppm
Cl (Chloride)	Max. 20 ppm
Na (Sodium)	Max. 0.02 %
Alkali hydroxides+carbonates(as $Ba(OH)_2$)	Max. 0.015 %
Insolubility in hydrochloric acid	Max. 0.015 %
Fe (Iron)	Max. 10 ppm
Ca (Calcium)	Max. 0.02 %
K (Potassium)	Max. 50 ppm
Sr (Strontium)	Max. 0.3 %

Cat. No.	Pk	Pack type
21702.235	250 g	Plastic bottle for solids
21702.292	1 kg	Plastic bottle for solids

Barium chloride dihydrate

Danger
H301 H332
P261 P304+P340 P309+P310

CAS 10326-27-9
Index 056-004-00-8
EINECS: 233-788-1
UN: 1564
ADR 6.1,III

$BaCl_2 \cdot 2H_2O$
M.W. 244.27 g/mol
Density: 3.86 g/cm³ (25 °C)
Boiling Pt: 1560 °C (1013 hPa)
Melting Pt: 960 °C
Storage Temperature: Ambient temperature

Barium chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (25°C; 5 %)	5.2 to 8.2
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Loss on drying (150°C)	14.0 to 16.0 %	Total N (Nitrogen)	Max. 20 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 1 ppm
K (Potassium)	Max. 50 ppm	Na (Sodium)	Max. 50 ppm
Pb (Lead)	Max. 10 ppm	Sr (Strontium)	Max. 0.05 %
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
21716.266	500 g	Plastic bottle for solids
21716.290	1 kg	Plastic bottle for solids
21716.368	5 kg	Plastic bottle for solids

Barium chloride dihydrate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Insolubility in water	Max. 0.05 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
21715.263	500 g	Plastic bottle for solids
21715.296	1 kg	Plastic bottle for solids

Barium chloride dihydrate TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
21709.364	5 kg	Bucket (Plastic)

Barium chloride (10 - 30%) in aqueous solution

Warning
H302
P301+P312

CAS 10361-37-2
EINECS: 233-788-1
UN: 3287
ADR 6.1,III

$BaCl_2$
M.W. 208.24 g/mol
Boiling Pt: Min. 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Barium chloride 10% in aqueous solution

Assay (W/V)	9.95 to 10.05 %
pH (25°C)	6.5 to 7.5

Cat. No.	Pk	Pack type
164735P	1 l	Glass bottle

Barium chloride (1 g/l), for Hydrometry

Cat. No.	Pk	Pack type
30594.298	1 l	Glass bottle

Barium chloride concentrated aqueous solution

Warning
H302
P301+P312

CAS 10361-37-2
EINECS: 233-788-1
UN: 3287
ADR 6.1,III

$BaCl_2$
M.W. 208.24 g/mol
Density: 1.18 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

NEW Barium chloride 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C; real value 0.2 % accuracy)	0.04998 to 0.05002 mol/l

Cat. No.	Pk	Pack type
84590.600	60 ml	Plastic ampoule

Barium chloride (0.05 - < 0.5 mol/l; 0.1 - < 1 N) in aqueous solution

Warning
H302
P301+P312

CAS 10361-37-2
EINECS: 233-788-1
UN: 3287
ADR 6.1,III

$BaCl_2$
M.W. 208.24 g/mol
Density: 1.034 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Barium chloride 0.25 mol/l (0.5 N) in aqueous solution Reag. Ph. Eur. 1009301

Cat. No.	Pk	Pack type
87783.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Barium chloride 0.15 mol/l (0.3 N) in aqueous solution Reag. Ph. Eur. 1009302

Cat. No.	Pk	Pack type
87784.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Barium diphenylamine-4-sulphonate

Barium bis(4-anilinobenzenesulphonate) ,
Barium N-phenylsulphanilate , Diphenylamine-4-sulphonic acid, barium salt

Warning
H302+H332
P261 P304+P340 P309+P311

CAS 6211-24-1
Index 056-002-00-7
EINECS: 228-278-0
UN: 1564
ADR 6.1,III

$C_{24}H_{20}BaN_2O_6S_2$
M.W. 635.91 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Barium diphenylamine-4-sulphonate TECHNICAL

IR Spectrum..... Passes test

Cat. No.	Pk	Pack type
84003.100	5 g	Glass bottle

Barium hydroxide octahydrate

Danger
H302+H332 H314
P280 P301+P330+P331 P304+P340 P309+P310

CAS 12230-71-6
Index 056-002-00-7
EINECS: 241-234-5
UN: 3262
ADR 8,III

$Ba(OH)_2 \cdot 8H_2O$
M.W. 315.47 g/mol
Density: 2.18 g/cm³ (20 °C)
Boiling Pt: 780 °C (1013 hPa)
Melting Pt: 78 °C
Storage Temperature: Ambient temperature

Barium hydroxide octahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay..... Min. 98.0 %
Insolubility in diluted HCl ..... Max. 50 ppm
CO_3 (as $BaCO_3$) ..... Max. 2.0 %
S (Sulphur)..... Max. 5 ppm
Fe (Iron)..... Max. 5 ppm
Conforms to Reag. Ph.Eur. ..... Passes test
Heavy metals (as Pb) ..... Max. 5 ppm
Not precipitated by dil. H_2SO_4 (as SO_4)... Max. 0.2 %
Cl (Chloride) ..... Max. 10 ppm
Ca (Calcium)..... Max. 30 ppm
Sr (Strontium) ..... Max. 1.5 %

Cat. No.	Pk	Pack type
21687.232	250 g	Plastic bottle for solids
21687.298	1 kg	Plastic bottle for solids

Barium hydroxide (0.058 - < 0.29 mol/l) in aqueous solution

CAS 17194-00-2
EINECS: 241-234-5

$Ba(OH)_2$

Barium hydroxide 0.15 mol/l (0.3 N) in aqueous solution Reag. Ph. Eur. 1009401

Cat. No.	Pk	Pack type
87785.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Barium nitrate

Danger
H272 H302+H332
P210 P280 P304+P340 P309+P310

CAS 10022-31-8
Index 056-002-00-7
EINECS: 233-020-5
UN: 1446
ADR 5.1,II

$Ba(NO_3)_2$
M.W. 261.34 g/mol
Density: ~ 3.23 g/cm³ (20 °C)
Melting Pt: ~ 592 °C
Storage Temperature: Ambient temperature

Barium nitrate AnalaR NORMAPUR® analytical reagent

Assay..... Min. 99.0 %
Heavy metals (as Pb) ..... Max. 5 ppm
Not precipitated by H_2SO_4 (as SO_4)..... Max. 0.05 %
Ca (Calcium)..... Max. 20 ppm
K (Potassium)..... Max. 50 ppm
Sr (Strontium) ..... Max. 0.2 %
pH (20°C; 5 %) ..... 5.0 to 8.0
Insolubility in water ..... Max. 100 ppm
Cl (Chloride) ..... Max. 5 ppm
Fe (Iron)..... Max. 2 ppm
Na (Sodium)..... Max. 50 ppm

Cat. No.	Pk	Pack type
21740.293	1 kg	Plastic bottle for solids

Barium perchlorate

Danger
H271 H302+H332
P210 P280 P304+P340 P309+P311

CAS 13465-95-7
Index 017-007-00-X
EINECS: 236-710-4
UN: 1447
ADR 5.1,II
Flash Pt: 21 °C (closed cup)

$Ba(ClO_4)_2$
M.W. 336.23 g/mol
Density: 3.2 g/cm³ (20 °C)
Melting Pt: 505 °C

Barium perchlorate AnalaR NORMAPUR® analytical reagent

Assay..... Min. 97.0 %
Insolubility in methanol..... Max. 0.1 %
Water ..... Max. 4 %
Ca (Calcium)..... Max. 0.05 %
Heavy metals (as Pb) ..... Max. 5 ppm
Not precipitated by H_2SO_4 (as SO_4)..... Max. 0.2 %
Cl (Chloride) ..... Max. 100 ppm
Fe (Iron)..... Max. 5 ppm

Cat. No.	Pk	Pack type
21749.236	250 g	Plastic bottle for solids

Barium N-phenylsulphanilate

See Barium diphenylamine-4-sulphonate..... p.60

Barium sulphate

CAS 7727-43-7
EINECS: 231-784-4

$BaSO_4$
M.W. 233.39 g/mol
Density: 4.5 g/cm³ (25 °C)
Boiling Pt: 1600 °C (1013 hPa)
Melting Pt: 1345 °C
Storage Temperature: Ambient temperature

Barium sulphate, fine powder Ph. Eur.

Appearance ..... White powder
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Acidity or alkalinity ..... Passes test
Substances soluble in acid ..... Max. 0.3 %
Oxidisable sulphur compounds ..... Passes test
Soluble barium salts ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on ignition (600 ± 50°C) ..... Max. 2.0 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
21763.292	1 kg	Plastic bottle for solids
21763.463	25 kg	Bucket (Plastic)

Barium sulphate GPR RECTAPUR®

Assay ..... Min. 98 %
Acidity ..... Max. 0.002 meq/g
Heavy metals (as Pb) ..... Max. 10 ppm
PO_4 (Phosphate) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
21766.292	1 kg	Plastic bottle for solids

Basic Red 5

See Neutral red p.320

Basic vanadium (IV) sulphate pentahydrate

See Vanadyl sulphate pentahydrate p.532

BCIG

See X-Gal (5-Bromo-4-chloro-3-indolyl-ß-D-galactopyranoside) p.544

BCIP

See 5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt (BCIP (p-toluidine salt), X-Phosphate) p.74

BCS Assay Kit

VWR CHEMICALS BCS Assay Kit

Quantitation kit that allows spectrophotometric determination of protein concentration. Kit includes sufficient material for 100 assays.

- Reduced variability from protein-to-protein sample
- High tolerance for salts, detergents and buffers
- Reproducible and consistent results

Cat. No.	Pk	Pack type
N962-100RXN	1 KIT	Kit

Beef Extract

VWR CHEMICALS Beef Extract, powder, high purity

A dried replacement for infusions of meat.

pH (10 %, Water) @ 25 °C ..... 4.6 – 6.0
Residue on Ignition (%) ..... 27 – 31
Salmonella ..... NONE
Solubility (10 %, Water) ..... PASS

Cat. No.	Pk	Pack type
0114-50G	50 g	Plastic bottle for solids
0114-100G	100 g	Plastic bottle for solids
0114-500G	500 g	Plastic bottle for solids

Beeswax white

CAS 8012-89-3
EINECS: 232-383-7
Density: 0.95 g/cm³ (20 °C)
Melting Pt: 61 to 65 °C

Beeswax white TECHNICAL

Melting point ..... 61 to 65 °C

Cat. No.	Pk	Pack type
22841.265	500 g	Plastic bottle

Beeswax yellow

CAS 8012-89-3
EINECS: 232-383-7

Beeswax yellow TECHNICAL

Melting point ..... 61 to 65 °C

Cat. No.	Pk	Pack type
22842.268	500 g	Plastic bottle for solids

Benedict's reagent

H411
P273

CAS 63126-89-6
UN: 3082
ADR 9,III
Storage Temperature: Ambient temperature

Benedict's reagent for qualitative detection of sugar in urine

Cat. No.	Pk	Pack type
230045R	1 l	Plastic bottle

Technical data sheet and instructions available on vwr.com

Bentonite

CAS 1302-78-9
EINECS: 215-108-5
Density: 2.5 g/cm³ (20 °C)

Bentonite TECHNICAL

Density ..... About 620 g/l
Swelling volume (ml/g) ..... 10 to 15
Loss on drying ..... Max. 16.5 %

Cat. No.	Pk	Pack type
87120.360	5 kg	Bucket (Plastic)

Benzaldehyde

Warning
H302
P301+P312

CAS 100-52-7
Index 605-012-00-5
EINECS: 202-860-4
UN: 1990
ADR 9,III
Flash Pt: 64 °C

C_6H_5CHO
M.W. 106.12 g/mol
Density: 1.049 g/cm³ (20 °C)
Boiling Pt: 179 °C (1013 hPa)
Melting Pt: -26 °C
Storage Temperature: Ambient temperature

Benzaldehyde GPR RECTAPUR®

Assay	Min. 98 %
Acidity	Max. 0.08 meq/g
Density (20/4)	1.040 to 1.050
Distillation range	177 to 181 °C
Total Cl (Chlorine)	Max. 0.03 %

Cat. No.	Pk	Pack type
20863.291	1 l	Glass bottle

Benzamidine hydrochloride hydrate

Benzene-1-carboximidamide hydrochloride hydrate , Phenylamidine hydrochloride hydrate , Benzamidinium chloride hydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 206752-36-5
EINECS: 216-795-4

$C_6H_5C(=NH)NH_2 \cdot HCl \cdot H2O$
M.W. 174.63 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Benzamidine hydrochloride hydrate, ultrapure

A protease inhibitor of arginine-selective enzymes like trypsin, kallikrein and thrombin.

Em (Lambda Max, MEOH anhydre)	9500
Heavy Metals (as Pb)	0.005 %
Identification (IR)	PASS
Melting Point	77 - 87 °C
Purity (anhydrous)	98.0 %
Reassay Date	REPORT
Solubility (1%, Water)	NONE

Cat. No.	Pk	Pack type
0616-25G	25 g	Plastic bottle for solids

VWR CHEMICALS Benzamidine hydrochloride hydrate, proteomics grade

Em (Lambda Max, MEOH, anhy)	9500
Heavy Metals (as Pb)	0.005 %
Identification (IR)	PASS
Melting Point	77 - 87 °C
Purity (anhydrous)	98.0 %
Reassay Date	REPORT
Solubility (1%, Water)	NONE

Cat. No.	Pk	Pack type
M141-25G	25 g	Plastic bottle for solids

Benzene

Cyclohexatriene

Danger
H225 H350 H340 H372 H304 H319 H315
P201 P210 P243 P281 P301+P331 P302+P352
P305+P351+P338 P309+P310

CAS 71-43-2
Index 601-020-00-8
EINECS: 200-753-7
UN: 1114
ADR 3,II
Flash Pt: -11 °C

Restricted to professional users. Not to be used as power or heating fuel.

C_6H_6
M.W. 78.11 g/mol
Density: 0.878 g/cm³ (20 °C)
Boiling Pt: 80.1 °C (1013 hPa)
Melting Pt: 5.5 °C
Storage Temperature: Ambient temperature

Benzene AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.7 %	Acidity or alkalinity	Max. 0.0001 meq/g
Colouration	Max. 10 APHA	Density (20/4)	0.878 to 0.879
Solidification point	5.2 to 5.4 °C	n 20/D	1.500 to 1.502
Substances discoloured by H_2SO_4	Max. 60 APHA	Evaporation residue	Max. 5 ppm
Thiophene	Max. 1 ppm	Total S (as SO_4)	Max. 10 ppm
Water	Max. 0.05 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
21803.291	1 l	Glass bottle

Benzene (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 71-43-2
EINECS: 200-753-7
UN: 1230
ADR 3,II

C_6H_6
Storage Temperature: Ambient temperature

Benzene 200 µg/ml in methanol

Cat. No.	Pk	Pack type
123152U	1 ml	Glass ampoule

Benzene-[D6]

Danger
H225 H350 H340 H372 H304 H319 H315
P201 P210 P243 P281 P301+P331 P302+P352
P305+P351+P338 P309+P310

CAS 1076-43-3
Index 601-020-00-8
EINECS: 214-061-8
UN: 1114
ADR 3,II
Flash Pt: -11 °C (closed cup)

C_6D_6
M.W. 84.07 g/mol
Density: 0.95 g/cm³ (20 °C)
Boiling Pt: 79 °C (1013 hPa)
Melting Pt: 6.7 °C
Storage Temperature: Ambient temperature

Benzene-[D6] 99.80 for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water ..... Max. 0.02 %

Cat. No.	Pk	Pack type
87160.0010	10 ml	Glass bottle
87160.0011	10 ml	Glass bottle with septum cap
87160.0025	25 ml	Glass bottle
87160.0100	100 ml	Glass bottle

1,3-Benzenediol

See Resorcinol p.408

Benzethonium chloride

Hyamine® 1622

Danger
H302 H314 H410
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 121-54-0
EINECS: 204-479-9
UN: 3077
ADR 9,III

$C_{27}H_{42}ClNO_2$
M.W. 448.09 g/mol
Melting Pt: 164 to 166 °C
Storage Temperature: Ambient temperature

Benzethonium chloride, anhydrous TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
21798.235	250 g	Plastic bottle for solids

Benzethonium chloride (< 0.0056 mol/l)

CAS 121-54-0
EINECS: 204-479-9

$C_{27}H_{42}ClNO_2$

Benzethonium chloride 0.004 mol/l AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00399 to 0.00401 mol/l

Cat. No.	Pk	Pack type
30497.293	1 l	Plastic bottle
30497.327	2,5 l	Plastic bottle

Benzo[a]pyrene (< 100 µg/ml) in toluene

Danger
H225 H361d H304 H373 H315 H336
P201 P210 P243 P281 P301+P331 P302+P352
P304+P340 P309+P310

CAS 50-32-8
EINECS: 200-028-5
UN: 1294
ADR 3,II
Flash Pt: 20 °C

$C_{20}H_{12}$
Storage Temperature: Ambient temperature

Benzo[a]pyrene 50 µg/ml in toluene

Cat. No.	Pk	Pack type
122932N	1 ml	Glass ampoule

Benzocaine (Ethyl 4-aminobenzoate)

Aethoform

Warning
H317
P280 P302+P352

CAS 94-09-7
EINECS: 202-303-5
Flash Pt: 112 °C

$C_9H_{11}NO_2$
M.W. 165.19 g/mol
Boiling Pt: 311 °C (1013 hPa)
Melting Pt: 89 to 90 °C
Storage Temperature: Ambient temperature

Benzocaine (Ethyl 4-aminobenzoate) Ph. Eur.

Assay (calculated on dried substance) ..... 99.0 to 101.0 %
Appearance ..... White crystalline powder
Identification B ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Melting point ..... 89 to 92 °C
Loss on drying ..... Max. 0.5 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
83530.150	50 g	Plastic bottle for solids

Benzoic acid

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 65-85-0
EINECS: 200-618-2
Flash Pt: 121 °C (closed cup)

$C_7H_6O_2$
M.W. 122.12 g/mol
Density: 1.316 g/cm³ (20 °C)
Boiling Pt: 249 °C (1013 hPa)
Melting Pt: 121 to 123 °C
Storage Temperature: Ambient temperature

Benzoic acid AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.7 %	Substances reducing $KMnO_4$ (as O)	Passes test
Substances coloured by H_2SO_4	Passes test	Melting point	121 to 123 °C
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in absolute ethanol	Max. 50 ppm
Insolubility in diluted ammonia	Max. 50 ppm	Insolubility in NaOH 1 N.	Max. 50 ppm
Ignition residue (SO_4)	Max. 100 ppm	Total Cl (Chlorine)	Max. 50 ppm
Water	Max. 0.3 %	SO_4 (Sulphate)	Max. 30 ppm
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
20172.180	100 g	Plastic bottle for solids
20172.260	500 g	Plastic bottle for solids

Benzoic acid methyl ester

Warning
H302
P301+P312

CAS 93-58-3
EINECS: 202-259-7
Flash Pt: 83 °C

$C_6H_5COOCH_3$
M.W. 136.15 g/mol
Density: 1.0888 g/cm³ (20 °C)
Boiling Pt: 199.6 °C (1013 hPa)
Melting Pt: -12 °C
Storage Temperature: Ambient temperature

Benzoic acid methyl ester GPR RECTAPUR®

Assay	Min. 98 %
Identification	Passes test
Density (20/4)	1.080 to 1.090
Ignition residue (SO_4)	Max. 0.05 %
Water	Max. 0.1 %

Cat. No.	Pk	Pack type
25567.291	1 l	Glass bottle

Benzoic acid sodium salt

See Sodium benzoate p.432

1,2-Benzophenanthrene

See Chrysene p.112

Benzotriazole

1H-Benzotriazole , 1,2,3-Benzotriazole , 1H-1,2,3-Benzotriazole

Danger
H228 H302+H332 H319 H412
P210 P280 P273 P305+P351+P338 P309+P311

CAS 95-14-7
EINECS: 202-394-1
UN: 2811
ADR 6.1,III
Flash Pt: 170 °C (closed cup)

$C_6H_5N_3$
M.W. 119.13 g/mol
Density: 1.34 g/cm³ (20 °C)
Boiling Pt: 350 °C (1013 hPa)
Melting Pt: 99 °C
Storage Temperature: Ambient temperature

Benzotriazole TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
21841.292	1 kg	Plastic bottle for solids

1,2,3-Benzotriazole

See Benzotriazole p.64

1H-Benzotriazole

See Benzotriazole p.64

1H-1,2,3-Benzotriazole

See Benzotriazole p.64

Benzyl alcohol

Phenylcarbinol

Warning
H302+H332
P261 P304+P340 P309+P311

CAS 100-51-6
Index 603-057-00-5
EINECS: 202-859-9
Flash Pt: 101 °C

$C_6H_5CH_2OH$
M.W. 108.14 g/mol
Density: 1.05 g/cm³ (20 °C)
Boiling Pt: 205 °C (1013 hPa)
Melting Pt: -15.3 °C
Storage Temperature: Ambient temperature

Benzyl alcohol analytical reagent

Assay (on anhydrous substance)	Min. 99 %
Acidity	Max. 0.0008 meq/g
Density (20/4)	1.043 to 1.046
Distillation range	204 to 208 °C
Peroxide value	Max. 10
Benzaldehyde	Max. 0.1 %
Water	Max. 0.1 %
Cl (Chloride)	Max. 20 ppm

Cat. No.	Pk	Pack type
20807.297	1 l	Glass bottle
20807.322	2,5 l	Glass bottle

Benzyl alcohol GPR RECTAPUR®

Assay	97.0 to 100.5 %
Acidity	Passes test
Appearance of solution	Passes test
IR Spectrum	Passes test
Density (20/20)	1.043 to 1.049
Peroxide value	Max. 5
n 20/D	1.538 to 1.541
Benzaldehyde	Max. 0.15 %
Evaporation residue	Max. 0.05 %
Related substances	Max. 0.2 %
Cl (Chloride)	Max. 20 ppm

Cat. No.	Pk	Pack type
27354EE	25 l	Plastic drum

Benzyl alcohol GPR RECTAPUR®

Assay	Min. 98 %
Density (20/4)	1.043 to 1.046
Distillation range	204 to 208 °C

Cat. No.	Pk	Pack type
20805.291	1 l	Glass bottle

Benzyl alcohol TECHNICAL

Assay	Min. 97 %

Cat. No.	Pk	Pack type
20804.366	5 l	Plastic bottle

Benzylpenicillin potassium salt

See Penicillin G potassium salt..... p.344

Beryllium standard solution, 10,000 mg/l Be in dil. nitric acid

Danger
H350i H330 H373 H319 H315 H317
P281 P284 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 7440-41-7
EINECS: 231-150-7
UN: 3264
ADR 8,III

Restricted to professional users.

Be
M.W. 9.01 g/mol
Storage Temperature: Ambient temperature

Beryllium standard solution, 10,000 mg/l Be in dil. nitric acid (from BeO.(Be(OAc)$_2$)$_3$) ARISTAR® standard for ICP

$BeO(C_2H_3O_2)_6$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455092U	100 ml	Plastic bottle

Supplied with certificate of analysis.

Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid

Danger
H350i H330 H373 H319 H315 H317
P281 P284 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 7440-41-7
EINECS: 231-150-7
UN: 3264
ADR 8,III

Restricted to professional users.

Be
M.W. 9.01 g/mol
Density: ~ 1.017 g/cm^3 (25 °C)
Storage Temperature: Ambient temperature

Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid (from Be) ARISTAR® standard for ICP-MS

(Be in HNO_3 2 %)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456662N	100 ml	Plastic bottle

Supplied with certificate of analysis.

Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid (from BeO.(Be(OAc)$_2$)$_3$) ARISTAR® standard for ICP

$BeO*(Be(OC_2H_3O_2)_2)_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455082S	100 ml	Plastic bottle
455084U	500 ml	Plastic bottle

Supplied with certificate of analysis.

Beryllium standard solution, 1,000 mg/l Be in 2% hydrochloric acid

Danger
H350i H330 H373 H319 H315 H317
P281 P284 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 7440-41-7
EINECS: 231-150-7
UN: 1789
ADR 8,III

Restricted to professional users.

Be
M.W. 9.01 g/mol
Storage Temperature: Ambient temperature

NEW Beryllium standard solution, 1,000 mg/l Be in 2% hydrochloric acid AVS TITRINORM® standard for AAS

Tested according to ISO 17025

Cat. No.	Pk	Pack type
86665.180	100 ml	Plastic bottle
86665.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Real value +/- 0.3%

Bestatin ([S-(R*,S*)]-N-(3-Amino-2-hydroxy-4-phenylbutyroyl)-L-leucine)

CAS 58970-76-6
EINECS: 261-529-2

$C_{16}H_{24}N_2O_4$
Storage Temperature: -20°C

VWR CHEMICALS Bestatin ([S-(R*,S*)]-N-(3-Amino-2-hydroxy-4-phenylbutyroyl)-L-leucine), ultrapure

A competitive inhibitor of aminopeptidases, especially aminopeptidase B, leucine aminopeptidase and tripeptide aminopeptidase. Not an inhibitor of carboxypeptidases.

Melting Point..... > 200 °C
Purity..... 99 %
Solubility (5 mg/3 ml MeOH)..... PASS
Specific Rotation..... REPORT

Cat. No.	Pk	Pack type
J579-10MG	10 mg	Glass bottle

Betaine Enhancer

see PCR

Betaine hydrochloride

CAS 590-46-5
EINECS: 209-683-1

$C_5H_{12}ClNO_2$
Storage Temperature: Ambient temperature

VWR CHEMICALS Betaine hydrochloride, ultrapure

Heavy Metals ..... 0.0010 %
Identification (IR) ..... PASS
Loss on Drying ..... 0.5 %
pH (25%, Water) @25 °C ..... 0.8 - 1.2
Purity ..... 98.0 %
Residue on Ignition ..... 0.1 %

Cat. No.	Pk	Pack type
K186-1KG	1 kg	Plastic bottle for solids

BHI

See Microbiology

Bicine

N,N-Bis(2-hydroxyethyl)glycine

CAS 150-25-4
EINECS: 205-755-1

$C_6H_{13}NO_4$
M.W. 163.17 g/mol
Melting Pt: 185 to 192 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Bicine, high purity

Moisture (Karl Fischer) ..... 1.0 %
O.D.@260 nm (0.1 M, Water) 0.05
O.D.@280 nm (0.1 M, Water) 0.05
pH (1%, Water) @25 °C ..... 4.2 - 5.5
Purity ..... 99.0 %
Solubility (20%, Water) ..... PASS

Cat. No.	Pk	Pack type
0149-100G	100 g	Plastic bottle
0149-1KG	1 kg	Plastic bottle

Bicyclo[4.4.0]decane

See Decahydronaphthalene (mixture of cis and trans isomers) p.133

Bile Esculine Azide Agar

See Microbiology

D(+)-Biotin

Vitamin H , Vitamin B7 , Vitamin B8

CAS 58-85-5
EINECS: 200-399-3

$C_{10}H_{16}N_2O_3S$
M.W. 244.32 g/mol
Density: 1.41 g/cm³ (20 °C)
Melting Pt: 232 to 233 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS D(+)-Biotin, reagent grade

Heavy Metals (as Pb) ..... < 0.001 %
Purity (RG) ..... 99 %
Specific Rotation ..... +89 to +93 °

Cat. No.	Pk	Pack type
0340-1G	1 g	Glass bottle
0340-5G	5 g	Glass bottle

4,4'-Bi-o-toluidine

See o-Tolidine p.509

2,2'-Bipyridine

See 2,2'-Bipyridyl p.66

2,2'-Bipyridyl

2,2'-Bipyridine

Danger
H301+H311
P280 P302+P352 P309+P310

CAS 366-18-7
EINECS: 206-674-4
UN: 2811
ADR 6.1,III
Flash Pt: 121 °C

$C_{10}H_8N_2$
M.W. 156.19 g/mol
Density: 1.326 g/cm³ (-150 °C)
Boiling Pt: 273 °C (1013 hPa)
Melting Pt: 70 to 72 °C
Storage Temperature: Ambient temperature

2,2'-Bipyridyl analytical reagent

Suited for iron reagent ..... Passes test
Melting point ..... 69 to 72 °C
Ignition residue (SO_4) ..... Max. 0.2 %
Insolubility in ethanol 96 % vol ..... Max. 100 ppm

Cat. No.	Pk	Pack type
23576.128	10 g	Plastic bottle for solids

BIS

See Bisacrylamide p.66

Bisacrylamide

N,N'-Methylenediacrylamide , BIS , N,N'-Methylenebisacrylamide

Warning
H302
P301+P312

CAS 110-26-9
EINECS: 203-750-9
Flash Pt: 138 °C

$(H_2C{=}CHCONH)_2CH_2$
M.W. 154.17 g/mol
Density: 1.235 g/cm³ (20 °C)
Boiling Pt: 125 °C (3.33 hPa)
Melting Pt: 185 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS Bisacrylamide, ultrapure

Abs.@290 nm (1%, Water) ..... ≤ 0.2
Acrylic Acid ..... ≤ 0.001 %
Conductivity (2%, Water) ..... <5 umhos
DNase ..... NONE
Identification ..... PASS
pH (1%, 0.1M NaCl) @25 °C 5.0
Protease ..... NONE
Purity ..... ≤ 99.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0172-50G	50 g	Plastic bottle
0172-100G	100 g	Plastic bottle
0172-250G	250 g	Plastic bottle

VWR CHEMICALS Bisacrylamide, proteomics grade

Abs.@290 nm (1%, Water) 0.2
Acrylic Acid ..... 0.001 %
Conductivity (2%, Water) ..... 10 umhos
DNase ..... NONE
Electrophoresis ..... PASS
Polymerisation (Min) ..... 20 Minutes
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
M104-50G	50 g	Plastic bottle
M104-100G	100 g	Plastic bottle

Bisacrylamide in aqueous solution

N,N'-Methylenebisacrylamide solution 1% (g/v)

CAS 110-26-9
EINECS: 203-750-9

$(H_2C=CHCONH)_2CH_2$

Bisacrylamide 20 g/l in aqueous solution Electran® for electrophoresis

A 2% w/v solution of NN'-methylenebisacrylamide Electran® in deionised water.

Assay (by acidimetry following saponification) ..... 1.8 to 2.2 %
Absorbance A (290 nm; 2.0 %; 1 cm) ..... Max 0.4

Cat. No.	Pk	Pack type
443555R	1 l	Glass bottle SAFEBREAK

VWR CHEMICALS Bisacrylamide 20 g/l in aqueous solution, ultrapure

Appearance ..... PASS
Conductivity ..... REPORT
Electrophoresis ..... PASS
pH @25 °C ..... REPORT

Cat. No.	Pk	Pack type
0832-500ML	500 ml	Plastic bottle

VWR CHEMICALS Bis-acylamide 2% (w/v), proteomics grade

A 2% (w/v) N,N'-methylene-bis-acrylamide solution.

Appearance ..... PASS
Conductivity (µmhos) ..... REPORT
DNase ..... NONE
Electrophoresis ..... PASS
pH @ 25 °C ..... REPORT
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
M193-500ML	500 ml	Plastic bottle

1,2-Bis(dimethylamino)ethane

See N,N,N',N'-Tetramethylethylenediamine (TEMED) p.501

3,7-Bis(dimethylamino)phenothiazin-5-ium chloride zinc chloride double salt

See Methylene blue NZ p.290

3,7-Bis(dimethylamino)phenothiazin-5-ium chloride

See Methylene blue p.290

Bis(ethylenediamine)copper dihydroxide 21% in aqueous solution

CAS 14552-35-3
EINECS: 238-597-7
UN: 1761
ADR 8,II

$Cu(H_2NCH_2CH_2NH_2)_2(OH)_2$
M.W. 217.76 g/mol

Bis(ethylenediamine)copper dihydroxide 21% in aqueous solution Reag. Ph. Eur. 3008700

Cat. No.	Pk	Pack type
87712.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

NEW Copper (II) ethylenediamine solution

Cat. No.	Pk	Pack type
5761.5000	5 l	Plastic container

Bis(2-ethylhexyl) phthalate

Phthalic acid bis(2-ethylhexyl) ester , DEHP , Di-iso-octyl phthalate , Di-(2-ethylhexyl) phthalate , Di(2-ethylhexyl) phthalate

Danger
H360FD H332
P201 P281 P308+P313

CAS 117-81-7
Index 607-317-00-9
EINECS: 204-211-0
UN: 3082
ADR 9,III
Flash Pt: 195 °C

Restricted to professional users.

$C_{24}H_{38}O_4$
M.W. 390.56 g/mol
Density: 0.98 g/cm³ (20 °C)
Boiling Pt: 386.9 °C (1013 hPa)
Melting Pt: -50 °C
Storage Temperature: Ambient temperature

Bis(2-ethylhexyl) phthalate TECHNICAL

Assay ..... Min. 99 %
n 20/D ..... 1.480 to 1.490

Cat. No.	Pk	Pack type
26040.366	5 l	Plastic bottle

Bis(2-ethylhexyl) sebacate

1,10-Decanedioic acid di(2-ethylhexyl) ester , Sebacic acid di(2-ethylhexyl) ester

CAS 122-62-3
EINECS: 204-558-8
Flash Pt: 213 °C

$C_{26}H_{50}O_4$
M.W. 426.68 g/mol
Density: 0.914 g/cm³ (20 °C)
Boiling Pt: 435 °C (1013 hPa)
Melting Pt: -55 °C
Storage Temperature: Ambient temperature

Bis(2-ethylhexyl) sebacate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
23399.296	1 l	Glass bottle

2-[Bis(2-hydroxyethyl)amino] ethanesulphonic acid sodium salt

BES-Na , N,N-Bis-(2-hydroxyethyl)-2-ethanesulphonic acid sodium salt , BES sodium salt

CAS 66992-27-6

$C_6H_{14}NNaO_5S$
M.W. 235.24 g/mol
Storage Temperature: Ambient temperature

2-[Bis(2-hydroxyethyl)amino]ethanesulphonic acid sodium salt, high purity

Heavy Metals (as Pb) ..... 5 ppm
Loss on Drying ..... 1.0 %
Purity (anhydrous) ..... 99 %
Solubility (33%, w/v solution) ..... PASS

Cat. No.	Pk	Pack type
N527-100G	100 g	Plastic bottle for solids

Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane (BIS-TRIS)

2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol , 2,2-Bis(hydroxymethyl)-2,2',2''-nitrilotriethanol , Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane (BIS-TRIS)

CAS 6976-37-0
EINECS: 230-237-7

$C_8H_{19}NO_5$
M.W. 209.24 g/mol
Melting Pt: 102 to 103 °C
Storage Temperature: Ambient temperature

Bis(2-hydroxyethyl)amino-tris(hydroxymethyl) methane (BIS-TRIS), ultrapure

DNase ..... NONE
Identification (IR) ..... PASS
Melting Point ..... 102 - 106 °C
Moisture (KF) ..... 1.0 %
pH (1.0%, Water) @25 °C ..... 8.8 - 9.6
pKa @25 °C ..... 6.45 - 6.65
Protease ..... NONE
Purity (Titration) ..... 99.0 %
RNase ..... NONE
Solubility (1.0%, Water) ..... PASS

Cat. No.	Pk	Pack type
0715-100G	100 g	Plastic bottle for solids
0715-250G	250 g	Plastic bottle for solids
0715-500G	500 g	Plastic bottle for solids

Bis(4-hydroxy-1-naphthyl)phenylmethanol

See 1-Naphtholbenzeine p.318

Bismuth (reagents for the analysis of)

Dimethyl glyoxime AnalaR NORMAPUR® analytical reagent p.150
Dithizone analytical reagent p.156
Pyrogallol AnalaR NORMAPUR® analytical reagent p.400
Xylenol orange tetrasodium salt TECHNICAL p.546

Bismuth standard solution, 10,000 mg/l Bi in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-69-9
EINECS: 231-177-4
UN: 3264
ADR 8,III

Bi
M.W. 208.98 g/mol
Storage Temperature: Ambient temperature

Bismuth standard solution, 10,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP

Bi in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455114J	500 ml	Plastic bottle

Supplied with certificate of analysis.

Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-69-9
EINECS: 231-177-4
UN: 3264
ADR 8,III

Bi
M.W. 208.98 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP-MS

Bi in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456672P	100 ml	Plastic bottle

Supplied with certificate of analysis.

Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP

Bi in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455102F	100 ml	Plastic bottle
455104H	500 ml	Plastic bottle

Supplied with certificate of analysis.

Bismuth standard solution, 1,000 mg/l Bi in 10% nitric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7440-69-9
EINECS: 231-177-4
UN: 3264
ADR 8,III

Restricted to professional users.

Bi
M.W. 208.98 g/mol
Storage Temperature: Ambient temperature

NEW

Bismuth standard solution, 1,000 mg/l Bi in 10% nitric acid AVS TITRINORM® standard for AAS

Tested according to ISO 17025

Cat. No.	Pk	Pack type
86666.180	100 ml	Plastic bottle
86666.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Real value +/- 0.3%

Bismuth (III) carbonate basic

Dibismuth carbonate dioxide , Bismuth subcarbonate

CAS 5892-10-4
EINECS: 227-567-9

$(BiO)_2CO_3$
M.W. 509.97 g/mol
Density: 6.86 g/cm³ (25 °C)

Bismuth (III) carbonate basic Ph. Eur.

Assay (Bi) (calculated on dried)	80.0 to 82.5 %
Appearance	White powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Cl (Chloride)	Max. 500 ppm
NO_3 (Nitrate)	Max. 0.4 %
Alkali and alkaline-earth metals	Max. 1.0 %
As (Arsenic)	Max. 5 ppm
Cu (Copper)	Max. 50 ppm
Pb (Lead)	Max. 20.0 ppm
Ag (Silver)	Max. 25 ppm
Loss on drying (105°C)	Max. 1.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83518.230	250 g	Plastic bottle for solids

Bismuth carbonate oxide

See Bismuth (III) carbonate basic p.69

Bismuth (III) nitrate pentahydrate

Bismuth trinitrate pentahydrate

Warning
H272 H319 H335 H315
P210 P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 10035-06-0
EINECS: 233-791-8
UN: 1477
ADR 5.1,II

$Bi(NO_3)_3 \cdot 5H_2O$
M.W. 485.07 g/mol
Density: 2.736 g/cm³ (20 °C)
Boiling Pt: 75 to 80 °C (1013 hPa)
Melting Pt: 30 °C

Bismuth (III) nitrate pentahydrate GPR RECTAPUR®

Assay	Min. 97 %
Alkali and alkaline-earths (as SO_4)	Max. 0.2 %
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.1 %

Cat. No.	Pk	Pack type
21932.263	500 g	Plastic bottle for solids

Bismuth (III) nitrate basic

Bismuth hydroxide nitrate oxide , Bismuth subnitrate

Danger
H272 H319 H335 H315

CAS 1304-85-4
EINECS: 215-136-8
UN: 1477
ADR 5.1,II

$Bi_5O(OH)_9(NO_3)_4$
M.W. 1461.99 g/mol
Density: 4.928 g/cm³ (20 °C)

NEW

Bismuth (III) nitrate basic AnalaR NORMAPUR®

Assay (calculated as Bi)	71.0 to 74.0 %	Identification	Passes test
Loss on drying (105°C)	Max. 3 %	Substances not precipitated by ammonia	Max. 1 %
Cl (Chloride)	Max. 0.02 %	Ag (Silver)	Max. 25 ppm
Cu (Copper)	Max. 50 ppm	Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
84838.180	100 g	Plastic bottle for solids

Bismuth (III) oxide

Dibismuth trioxide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1304-76-3
EINECS: 215-134-7

BiO_3
M.W. 465.96 g/mol
Density: 8.9 g/cm³ (20 °C)
Boiling Pt: 1890 °C (1013 hPa)
Melting Pt: 825 °C

Bismuth (III) oxide GPR RECTAPUR®

Assay ..... Min. 99 %
NO_3 (Nitrate) ..... Max. 0.2 %
As (Arsenic) ..... Max. 5 ppm
Pb (Lead) ..... Max. 30 ppm

Cat. No.	Pk	Pack type
21945.267	500 g	Plastic bottle for solids

Bismuth subcarbonate

See Bismuth (III) carbonate basic p.69

Bismuth subnitrate solution

NEW

Bismuth subnitrate solution Reag. Ph. Eur. 1011502

Cat. No.	Pk	Pack type
87786.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Bismuth trinitrate pentahydrate

See Bismuth (III) nitrate pentahydrate p.69

Biuret

CAS 108-19-0
EINECS: 203-559-0

$H_2NC(O)NHC(O)NH_2$
M.W. 103.08 g/mol
Density: 1.467 g/cm³ (10 °C)
Melting Pt: 188 °C
Storage Temperature: 2 - 8°C

Biuret AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance) .... Min. 99 % Ignition residue (SO_4) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
21975.157	50 g	Plastic bottle for solids

Biuret reagent solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3266
ADR 8,II
Storage Temperature: Ambient temperature

NEW

Biuret reagent solution Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87787.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Biuret reagent solution for protein (total) in serum or plasma

Contents per litre :
3 g Cupric sulphate $CuSO_4.5H_2O$
5.0 g Potassium iodide KI
9.0 g Potassium sodium tartrate $KNaC_4H_4O_6.4H_2O$
8 g Sodium hydroxide NaOH
1.4 ml Wetting agent ARW-7

Cat. No.	Pk	Pack type
220947S	5 l	Plastic container

Boiling stones ('Anti-Bumping')

Boiling stones ('Anti-Bumping'), granules

Granules of fused alumina, to reduce 'bumping' in boiling liquids
Particle size (1-2 mm) ..... Min. 96 %

Cat. No.	Pk	Pack type
330093Y	250 g	Plastic bottle for solids

Bole white (Kaolin)

China Clay , Clay , Hydrated aluminum silicate

CAS 1332-58-7
EINECS: 310-194-1

$Al_2SiO_7 \cdot 2H_2O$
M.W. 258.16 g/mol
Density: 0.5 g/cm³ (20 °C)
Melting Pt: 1760 °C
Storage Temperature: Ambient temperature

Bole white (Kaolin) TECHNICAL, washed

Identification ..... Passes test

Cat. No.	Pk	Pack type
24926.364	5 kg	Bucket (Plastic)

Borate solution

NEW

Borate solution Reag. Ph. Eur. 1033601

Cat. No.	Pk	Pack type
87826.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

ortho-Boric acid

Boric acid

Danger
H360FD
P201 P281 P308+P313

CAS 10043-35-3
Index 005-007-00-2
EINECS: 233-139-2

$B(OH)_3$
M.W. 61.83 g/mol
Density: 1.44 g/cm³ (25 °C)
Boiling Pt: 185 °C (1013 hPa)
Melting Pt: 160 °C
Storage Temperature: Ambient temperature

ortho-Boric acid, crystallized AnalaR NORMAPUR® analytical reagent

Assay	99.8 to 100.5 %	Organic impurities	Passes test
Solution in water	Passes test	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in methanol	Max. 50 ppm	Insolubility in water	Max. 50 ppm
Non-esterifiable impurities	Max. 0.1 %	Non-volatile with methanol/ HCl	Max. 0.05 %
NH_4 (Ammonium)	Max. 20 ppm	Cl (Chloride)	Max. 3 ppm
PO_4 (Phosphate)	Max. 5 ppm	SO_4 (Sulphate)	Max. 5 ppm
As (Arsenic)	Max. 0.5 ppm	Ca (Calcium)	Max. 20 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 1 ppm
Mg (Magnesium)	Max. 5 ppm	Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
20185.260	500 g	Plastic bottle for solids
20185.297	1 kg	Plastic bottle for solids
20185.360	5 kg	Plastic bottle for solids
20185.460	25 kg	Cardboard carton

ortho-Boric acid, crystallized Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (3.3 %)	3.8 to 4.8
Solubility in alcohol	Passes test
Organic matter	Passes test
SO_4 (Sulphate)	Max. 450 ppm
Heavy metals (as Pb)	Max. 15 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20181.294	1 kg	Plastic bottle for solids
20181.363	5 kg	Plastic bottle for solids
20181.465	25 kg	Bucket (Plastic)

ortho-Boric acid, crystallized GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Non-volatile with methanol/ HCl	Max. 0.2 %
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
20182.297	1 kg	Plastic bottle for solids
20182.366	5 kg	Plastic bottle for solids

ortho-Boric acid, powder GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Non-volatile with methanol/ HCl	Max. 0.2 %
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.025 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
20183.291	1 kg	Plastic bottle for solids
20183.360	5 kg	Bucket (Plastic)

ortho-Boric acid, crystallized Gen-Apex® Molecular biology grade

Assay	Min. 99.5 %
Colouration (0.1 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 5 ppm
Transmittance (230 nm) (0.1 mol/l)	Min. 90 %
Transmittance (260 nm) (0.1 mol/l)	Min. 95 %
Transmittance (280 nm) (0.1 mol/l)	Min. 97 %
Transmittance (320 nm) (0.1 mol/l)	Min. 99 %

Cat. No.	Pk	Pack type
33601.261	500 g	Plastic bottle for solids

ortho-Boric acid, proteomics grade

Calcium	0.005 %
Chloride	0.001 %
DNase	NONE
Heavy Metals (as Pb)	0.001 %
Insolubles (Methanol)	0.005 %
Iron	0.001 %
Nonvolatiles (Methanol)	0.05 %
Phosphate	0.001 %
Protease	NONE
Purity	99.5 %
RNase	NONE
Sulfate	0.01 %

Cat. No.	Pk	Pack type
M139-500G	500 g	Plastic bottle for solids
M139-1KG	1 kg	Plastic bottle for solids
M139-2.5KG	2,5 kg	Plastic bottle for solids

ortho-Boric acid Molecular biology grade

Assay	Min. 99.5 %
Identification	Passes test
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Absorbance (260 nm) (0,05 mol/l)	Max. 0.01
Absorbance (280 nm) (0,05 mol/l)	Max. 0.01
Heavy metals (as Pb)	Max. 0.001 %
pH (20 °C; 5 %)	3.8 to 4.8
Water	Max. 0.3 %
Cl (Chloride)	Max. 0.001 %
PO_4 (Phosphate)	Max. 0.0002 %
SO_4 (Sulphate)	Max. 0.005 %
As (Arsenic)	Max. 0.0001 %
Ca (Calcium)	Max. 0.002 %
Cu (Copper)	Max. 0.0005 %
Fe (Iron)	Max. 0.0002 %
Mg (Magnesium)	Max. 0.0005 %
Na (Sodium)	Max. 0.002 %
Pb (Lead)	Max. 0.0005 %

Cat. No.	Pk	Pack type
443904S	500 g	Plastic bottle
443905T	1 kg	Plastic bottle

ortho-Boric acid, crystallized TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
20177.290	1 kg	Plastic bottle for solids
20177.368	5 kg	Bucket (Plastic)

ortho-Boric acid (0.1 - < 5.5%) in aqueous solution

CAS 10043-35-3

EINECS: 233-139-2

$B(OH)_3$

Storage Temperature: Ambient temperature

ortho-Boric acid 40 g/l in aqueous solution

Assay	3.9 to 4.1 %

Cat. No.	Pk	Pack type
5792.5000	5 l	Plastic container

ortho-Boric acid 20 g/l in aqueous solution

Assay	1.9 to 2.1 %

Cat. No.	Pk	Pack type
2733.5000	5 l	Plastic container

ortho-Boric acid 40 g/l in aqueous solution for Kjeldahl determinations

Contents per litre:
Boric acid AnalaR NORMAPUR® 40 g
BDH `4.5` indicator 6 ml

Assay ..... 39 to 41 g/l
pH (20 °C) ..... 3.8 to 4

Cat. No.	Pk	Pack type
192316H	2,5 l	Glass bottle

ortho-Boric acid 40 g/l in aqueous solution

Assay (W/V) ..... 3.9 to 4.2 %
Appearance ..... Clear red liquid
Sensitivity ..... Passes test
Density (20/4) ..... 1.000 to 1.020

Cat. No.	Pk	Pack type
95097.5000	5 l	Plastic container

ortho-Boric acid 10 g/l in aqueous solution, light green VOLUSOL®

Assay (W/V) ..... 0.9 to 1.1 %
Appearance ..... Clear green liquid
Sensitivity ..... Passes test

Cat. No.	Pk	Pack type
5732.5000	5 l	Plastic container

Boron standard solution, 10,000 mg/l B in ammonium hydroxide solution (max. 1%)

CAS 7440-42-8
EINECS: 231-151-2

B
M.W. 10.81 g/mol
Storage Temperature: Ambient temperature

Boron standard solution, 10,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP

H_3BO_3 in H_2O tr. NH_4OH

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455132L	100 ml	Plastic bottle
455134N	500 ml	Plastic bottle

Supplied with certificate of analysis.

Boron standard solution, 5,000 mg/l B in water

CAS 7440-42-8
EINECS: 231-151-2

B
M.W. 10.81 g/mol
Storage Temperature: Ambient temperature

NEW

Boron standard solution, 5,000 mg/l B in water

Cat. No.	Pk	Pack type
88380.260	500 ml	Plastic bottle
88380.290	1.000 ml	Plastic bottle

Boron standard solution, 1,000 mg/l B in ammonium hydroxide solution (max. 1%)

CAS 7440-42-8
EINECS: 231-151-2

B
M.W. 10.81 g/mol
Storage Temperature: Ambient temperature

Boron standard solution, 1,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455122J	100 ml	Plastic bottle
455124L	500 ml	Plastic bottle

Supplied with certificate of analysis.

Boron standard solution, 1,000 mg/l B in water

CAS 7440-42-8
EINECS: 231-151-2

B
M.W. 10.81 g/mol
Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Boron standard solution, 1,000 mg/l B in water AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86663.180	100 ml	Plastic bottle
86663.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Boron trifluoride methanol complex 20% in methanol

Danger
H225 H330 H301+H311 H314 H370
P210 P280 P284 P301+P330+P331 P302+P352
P304+P340 P305+P351+P338 P309+P310

CAS 373-57-9
EINECS: 206-766-4
UN: 2924
ADR 3,II
Flash Pt: 16 °C

$BF_3 \cdot CH_3OH$
M.W. 99.85 g/mol
Density: 0.89 g/cm³ (20 °C)

Boron trifluoride methanol complex 20% in methanol for synthesis

Assay ..... 13 to 20 %
Density (20/4) ..... 0.880 to 0.895

Cat. No.	Pk	Pack type
22007.263	500 ml	Glass bottle

Bottles, wide mouth, square for solid products

PE

- Ideal for storing and shipping samples
- Wide mouth permits easy filling, emptying and cleaning
- Square shape saves space

Thread	Capacity	W×D×H	Material	Pk	Cat. No.
Bottles, wide mouth, square for solid products					
DIN 60	1000 ml	97×97×210 mm		1	13251000.
DIN 80	2500 ml	127×127×280 mm		1	13252500.
Screw caps					
DIN 60	1000 ml		PP	1	13010160.
DIN 80	2500 ml		PP	1	13010181.

Bouin's solution

Warning
H351 H302+H312+H332 H319 H335 H315 H317 H336
P281 P302+P352 P304+P340 P305+P351+P338 P309+P310
UN: 3265
ADR 8,III

Bouin's solution GURR®

Formaldehyde (W/V) ..... 9.4 to 10.2 %
Picric acid (W/V) ..... 0.88 to 0.92 %

Cat. No.	Pk	Pack type
7000.1000	1 l	Plastic bottle

Technical data sheet and instructions available on vwr.com

Bouin's fixative

Warning
H351 H302+H312+H332 H319 H335 H315 H317 H336
P281 P302+P352 P304+P340 P305+P351+P338 P309+P310
UN: 3265
ADR 8,III
Storage Temperature: Ambient temperature

NEW Bouin's fixative Q PATH® for microscopy

Ready to use fixative particularly useful with soft tissues.

IVD

Cat. No.	Pk	Pack type
11604901.	5 l	Plastic container

IVD registered. Instructions for use on vwr.com- just search for the product.

Boutron-Boudet hydrotimetric solution

Danger
H225
P210 P243 P280
UN: 1170
ADR 3,II
M.W. 320.56 g/mol

Boutron-Boudet hydrotimetric solution TECHNICAL

0.104 ml corresponds to 1 hydrotimetric degree for a 40 ml-water sample
Identification ..... Passes test

Cat. No.	Pk	Pack type
31700.293	1 l	Plastic bottle

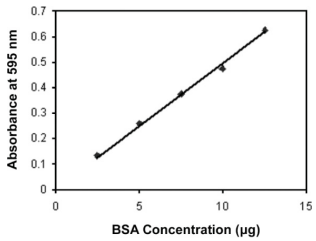
Bovine Albumin

See Albumin from bovine serum (BSA) p.20

Bradford's reagent

Warning
H371 H319 H315
P260 P305+P351+P338
Storage Temperature: 2 - 8°C

VWR CHEMICALS Bradford's reagent, proteomics grade for quantitative protein determination



Bradford Assay for Protein Determination. Samples were prepared by adding 0, 5, 10, 15, 20 and 25 µl of 0.5 mg/ml BSA to microfuge tubes and adding sufficient 0.15N NaCl to bring the final volumes to 100 µl. A 1 ml aliquot of Bradford Reagent was added to each sample and the absorbance at 595 nm was measured after a 2 minute incubation.

Abs.@ Peak A ..... REPORT
Abs.@ Peak A/Abs.@ 595 nm 1.80
Characteristic pattern ..... PASS
Peak A ..... 463 - 467 nm
Protease ..... NONE

Cat. No.	Pk	Pack type
M172-1L	1 l	Plastic bottle

VWR CHEMICALS Bradford's reagent for biotechnology, for quantitative protein determination

Abs.@ Peak A ..... 0.95 - 1.6
Abs.@ Peak A/Abs.@ 595 nm 1.70
Bradford Protein Assay ..... PASS
Characteristic pattern ..... PASS
Peak A ..... 463 - 467 nm
pH @ 25 °C ..... 0.5 - 1.5

Cat. No.	Pk	Pack type
E530-1L	1 l	Plastic bottle

Brewers yeast

CAS 68876-77-7

Brewers yeast, dry, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24979.297	1 kg	Plastic bottle for solids
24979.413	10 kg	Bucket (Plastic)

Brij® 35

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311

CAS 9002-92-0
EINECS: 500-002-6

$C_{58}H_{118}O_{24}$
M.W. 1199.56 g/mol
Storage Temperature: Ambient temperature

Brij® 35, high purity

Non-ionic detergent efficiently hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Hydroxyl Number ..... 40 - 60
Moisture (KF) ..... 3.0 %

Cat. No.	Pk	Pack type
0217-1KG	1 kg	Plastic bottle for solids
0217-5KG	5 kg	Bucket (Plastic)

Brij® 35, proteomics grade

Hydroxyl Number ..... 40 - 60
Moisture (KF) ..... 3.0 %
Protease ..... NONE

Cat. No.	Pk	Pack type
M106-1KG	1 kg	Plastic bottle for solids

Brij® 35 10% aqueous solution

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 9002-92-0
EINECS: 500-002-6

$C_{58}H_{118}O_{24}$
M.W. 1199.56 g/mol
Storage Temperature: Ambient temperature

Brij® 35 10% aqueous solution, proteomics grade

Ready-to-use 10% solution packaged in 10 ml vials.

Peroxide ..... 1.0 euq/mL
Protease ..... NONE

Cat. No.	Pk	Pack type
M238-10ML-5PK	1 KIT	Glass ampoule

Brilliant blue G

See Coomassie® Brilliant Blue G-250 ..... p.121

Brillant blue R

See Coomassie® Brilliant Blue R-250 ..... p.121

Brilliant Cyanine 6B

See Coomassie® Brilliant Blue R-250 ..... p.121

Brilliant green bile agar

See Microbiology

Brilliant indocyanine 6B

See Coomassie® Brilliant Blue R-250 ..... p.121

Brilliant indocyanine G

See Coomassie® Brilliant Blue G-250 ..... p.121

Bromide standard solution, 1,000 mg/l Br- in water

Density: 0.999 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Bromide standard solution, 1,000 mg/l Br- in water (from NaBr) ARISTAR® standard for ion chromatography

Br in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458042W	100 ml	Plastic bottle
458044B	500 ml	Plastic bottle

5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt (BCIP (p-toluidine salt), X-Phosphate)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 6578-06-9
EINECS: 229-506-1

$C_{15}H_{15}BrClN_2O_4P$
Storage Temperature: -20°C

5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt (BCIP (p-toluidine salt), X-Phosphate), ultrapure

Chromogenic substrate for the detection of alkaline phosphatase. Often used with INT or NBT to amplify the sensitivity of staining.

Em (290 nm) 5700
Identification ..... PASS
Moisture ..... 2.0 %
O.D.@620 nm (0.1%, DMF) 0.005
Purity (HPLC) ..... 99.0 %
Solubility (0.10%, DMF) ..... PASS

Cat. No.	Pk	Pack type
0885-100MG	100 mg	Glass bottle
0885-500MG	500 mg	Glass bottle
0885-1G	1 g	Glass bottle

BCIP/NBT solution for biotechnology

Ready-to-use solution produces a dark blue insoluble end product ideal for immunohistochemistry and Northern and Southern hybridisations.

Abs. @ 234 nm (3%, Water) ..... 1.07 – 1.37
Abs. @ 260 nm (3%, Water) ..... 0.86 – 1.09
Conductivity (µmhos) ..... 2500 – 5500
Moisture (by Karl Fisher) (%) ..... REPORT
pH @ 25 °C ..... 9.7 – 9.9

Cat. No.	Pk	Pack type
E116-100ML	100 ml	Glass bottle

BCIP/INT substrate, for biotechnology

Ready-to-use solution ideal for detection of alkaline phosphatase in various procedures, including *in situ* hybridisation and immunoblotting. Also used in immunohistochemistry, producing a reddish-brown colour that contrasts well with blue hematoxylin stained sections.
Contains 1.15×10 mM BCIP and 0.692 mM INT.

Cat. No.	Pk	Pack type
E692-100ML	100 ml	Glass bottle

5-Bromo-4-chloroindol-3-yl-β-D-galactopyranoside

See X-Gal (5-Bromo-4-chloro-3-indolyl-ß-D-galactopyranoside) p.544

Bromocresol green

CAS 76-60-8
EINECS: 200-972-8

$C_{21}H_{14}Br_4O_5S$
M.W. 698.02 g/mol
Melting Pt: 217 to 218 °C
Storage Temperature: Ambient temperature

Bromocresol green, powder pH-indicator

Transition range - yellowish-green to blue : pH 3.8-5.4

Appearance of the solution ..... Passes test
Transition range ..... Passes ACS test
Loss on drying (110°C) ..... Max 3 %

Cat. No.	Pk	Pack type
200125B	25 g	Glass bottle

Bromocresol green (< 0.1%) in ethanol (>80%)

Danger
H225
P210 P243 P280

CAS 76-60-8
EINECS: 200-972-8
UN: 1170
ADR 3,II
Flash Pt: 20 °C

$C_{21}H_{14}Br_4O_5S$
Storage Temperature: Ambient temperature

Bromocresol green 0.04% in ethanol TECHNICAL

Transition range: pH 3.8-5.4

Identification ..... Passes test

Cat. No.	Pk	Pack type
34301.237	250 ml	Glass bottle

Bromocresol green (0.1 - < 1%) in 2-propanol

Danger
H225 H319 H336
P210 P280 P305+P351+P338

CAS 76-60-8
EINECS: 200-972-8
UN: 1219
ADR 3,II
Flash Pt: 13 °C

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

$C_{21}H_{14}Br_4O_5S$
Storage Temperature: Ambient temperature

Bromocresol green 0.1% in 2-propanol, spray reagent for TLC

Sqeeze container gently to dispense. Allow container to vent after use.

Suited for reagent ..... Passes test
Performance of spray ..... Passes test

Cat. No.	Pk	Pack type
30957.602	250 ml	Aerosol can

Ozone friendly (Convention 07/02/1989)

Bromoform

Tribromomethane

Danger
H331 H302 H319 H315 H411
P280 P273 P302+P352 P304+P340 P305+P351+P338 P309+P311

CAS 75-25-2
Index 602-007-00-X
EINECS: 200-854-6
UN: 2515
ADR 6.1,III

Br_3CH
M.W. 252.73 g/mol
Density: 2.8912 g/cm³ (20 °C)
Boiling Pt: 149.5 °C (1013 hPa)
Melting Pt: 9.2 °C
Storage Temperature: Ambient temperature

Bromoform AnalaR NORMAPUR® analytical reagent, for mineralogy

Stabilised with ethanol 1 %

Assay (on anhydrous substance) ..... Min. 98.0 %
Acidity ..... Max. 0.002 meq/g
Density (20/4) ..... 2.820 to 2.880
n 20/D ..... 1.592 to 1.598

Cat. No.	Pk	Pack type
22045.297	1 l	Glass bottle

Bromoform GPR RECTAPUR®

Assay ..... Min. 97 %
Density (20/4) ..... 2.800 to 2.880
n 20/D ..... 1.592 to 1.598

Cat. No.	Pk	Pack type
22044.294	1 l	Glass bottle

Bromoform TECHNICAL

Stabilised with ethanol

Assay ..... Min. 95 %

Cat. No.	Pk	Pack type
22042.297	1 l	Glass bottle

Bromomethane (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 74-83-9
EINECS: 200-813-2
UN: 1230
ADR 3,II

$BrCH_3$
Storage Temperature: Ambient temperature

Bromomethane 200 µg/ml in methanol

Cat. No.	Pk	Pack type
123472K	1 ml	Glass ampoule

1-Bromonaphthalene

α-Bromonaphthalene

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 90-11-9
EINECS: 201-965-2
Flash Pt: 66 °C

$C_{10}H_7Br$
M.W. 207.07 g/mol
Density: 1.48 g/cm³ (20 °C)
Boiling Pt: 280 °C (1013 hPa)
Melting Pt: 0 to 6 °C
Storage Temperature: Ambient temperature

1-Bromonaphthalene for synthesis

Assay ..... Min. 96 %
Density (20/4) ..... 1.483 to 1.490

Cat. No.	Pk	Pack type
22050.238	250 ml	Glass bottle

Bromophenol blue

4,4′-(3H-2,1-Benzoxathiol-3-ylidene)bis[2,6-dibromophenol] S,S-dioxide

CAS 115-39-9
EINECS: 204-086-2

$C_{19}H_{10}Br_4O_5S$
M.W. 669.97 g/mol
Density: 1 g/cm³ (20 °C)
Melting Pt: 273 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Bromophenol blue ACS

A tracking dye for nucleic acid and protein gels. Also a pH indicator (yellow to blue, range 3.0 - 4.6).

Clarity of Solution ..... PASS
Visual Transition Interval (pH 3.0 - 4.6) ..... PASS

Cat. No.	Pk	Pack type
0449-25G	25 g	Glass bottle
0449-50G	50 g	Glass bottle
0449-100G	100 g	Glass bottle

Bromophenol blue (< 0.1%) in ethanol

Danger
H225
P210 P243 P280

CAS 115-39-9
EINECS: 204-086-2
UN: 1170
ADR 3,II
Flash Pt: 20 °C

$C_{19}H_{10}Br_4O_5S$
Storage Temperature: Ambient temperature

Bromophenol blue 0.04% in ethanol TECHNICAL

Transition range: pH 3.0 - 4.6

Identification ..... Passes test

Cat. No.	Pk	Pack type
34307.237	250 ml	Glass bottle

Bromophenol blue solution R1

NEW Bromophenol blue solution R1 Reag. Ph. Eur. 1012802

Cat. No.	Pk	Pack type
87795.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Comprises <0.1% bromophenol blue and <0.1% sodium hydroxide in water.

Bromophenol blue sodium salt

4,4′-(3H-2,1-Benzoxathiol-3-ylidene)bis[2,6-dibromophenol] S,S-dioxide sodium salt , Bromophenol blue water soluble , Sodium α-(3,5-dibromo-4-oxo-2,5-cyclohexadienylidene)-α-(3,5-dibromo-4-hydroxyphenyl) toluenesulphonate

CAS 34725-61-6
EINECS: 252-170-2

$C_{19}H_9Br_4NaO_5S$
M.W. 691.95 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Bromophenol blue sodium salt ACS

Clarity of Solution ..... PASS
Visual Transition Interval (pH 3.0 - 4.6) ..... PASS

Cat. No.	Pk	Pack type
0312-50G	50 g	Glass bottle
0312-100G	100 g	Glass bottle

VWR CHEMICALS Bromophenol blue sodium salt, proteomics grade

A tracking dye for nucleic acid and protein gels. Also a pH indicator (yellow to blue, range 3.0 - 4.6).

Clarity of Solution ..... PASS
Protease ..... NONE
Visual Transition Interval (pH 3.0 - 4.6) ..... PASS

Cat. No.	Pk	Pack type
M116-50G	50 g	Glass bottle

Bromothymol blue

CAS 76-59-5
EINECS: 200-971-2

$C_{27}H_{28}Br_2O_5S$
M.W. 624.39 g/mol
Melting Pt: 204 to 202 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Bromothymol blue ACS

A pH indicator (yellow to blue; range 6.0 - 7.6). Used to trace movement of fluids from the lymph and also for demonstration of fungal hyphae within plant roots.

Clarity of Solution ..... PASS
Visual Transition Interval (pH 6.0 - 7.6) ..... PASS

Cat. No.	Pk	Pack type
0431-25G	25 g	Plastic bottle for solids
0431-50G	50 g	Glass bottle

Bromothymol blue (1 - 5%) in DMF

CAS 76-59-5
EINECS: 200-971-2
$C_{27}H_{28}Br_2O_5S$

NEW

Bromothymol blue 1% in DMF Reag. Ph. Eur. 1012902

Cat. No.	Pk	Pack type
87797.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Bromothymol blue (< 0.1%) in ethanol

Danger
H225
P210 P243 P280

CAS 76-59-5
EINECS: 200-971-2
UN: 1170
ADR 3,II
Flash Pt: 20 °C
$C_{27}H_{28}Br_2O_5S$
Storage Temperature: Ambient temperature

Bromothymol blue 0.04% in ethanol TECHNICAL

Transition range: pH 6.0-7.6

Identification ..... Passes test

Cat. No.	Pk	Pack type
34303.234	250 ml	Glass bottle

Broth for biotechnology

LB Broth Lennox (Luria-Bertani), Tissue Culture Grade

LB Broth Lennox (Luria-Bertani), Tissue Culture Grade

Used for the propagation and maintenance of *E. coli.* Widely used for the preparation of plasmid DNA and recombinant proteins. Each pack prepares 10×1 litre of media.

Cat. No.	Pk	Pack type
K488-10PK	10	Kit

LB Broth liquid

LB Broth liquid for biotechnology

Used for the propagation and maintenance of *E. coli*. Widely used for the preparation of plasmid DNA and recombinant proteins.

Abs. @ 260 nm (1:100, Water) ..... 0.2263 – 0.2663
Bioburden (Milliflex) ..... NONE
pH @ 25 °C ..... 6.65 – 7.15
Refractive Index ..... 1.334 – 1.342
Specific Gravity @ 20 °C ..... 1.0116 – 1.0128

Cat. No.	Pk	Pack type
J833-1L	1 l	Plastic bottle

H Medium Broth, for biotechnology

H Medium Broth for biotechnology

Premixed powder media used for the cultivation of *E. coli*.

Conductivity (1:10) @ 25 °C (µmhos) ..... REPORT
pH @ 25 °C ..... 6.8 – 7.2
Solubility (18 g/1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J908-500G	500 g	Plastic bottle for solids

2XYT Medium Broth

2XYT Medium Broth for biotechnology

Pre-mixed powder. Used for the preparation of *E. coli* strains infected with M13 bacteriophage.

Conductivity (1:10) @25 °C ..... REPORT
pH @25 °C ..... 6.6 - 7.0
Solubility (31g/1L Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J902-100G	100 g	Plastic bottle for solids
J902-500G	500 g	Plastic bottle for solids

LB Broth Miller (Luria-Bertani), Tissue Culture Grade

LB Broth Miller (Luria-Bertani), Tissue Culture Grade

Used for the propagation and maintenance of *E. coli*. Widely used for the preparation of plasmid DNA and recombinant proteins. Each pack in the 10 pack size prepares 1 litre of media.

Bacterial Growth Test ..... PASS
Solubility (2.5%, water) ..... PASS

Cat. No.	Pk	Pack type
J106-10PK	10	Kit
J106-500G	500 g	Plastic bottle for solids
J106-1KG	1 kg	Plastic bottle for solids
J106-2KG	2 kg	Plastic bottle for solids

NZCYM Broth powder, for biotechnology

NZCYM Broth powder, for biotechnology

Used for the preparation of media for the growth of lambda phages. A rich source of high quality amino acids and peptides.

Conductivity (10%, Water) @25°C ..... REPORT
pH (23g/L Water to 7.5 w/1M NaOH)@25°C ..... REPORT
Solubility (23g/L Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J865-500G	500 g	Plastic bottle for solids

NZM Broth, for biotechnology

NZM Broth, for biotechnology

Used for the replication and maintenance of lambda bacteriophage (NZCYM without casamino acids and yeast extract).

Conductivity (10%, Water) @25°C ..... REPORT
pH (17g/qs 1000ml Water/ 5ml 20% Casamino Acid) ..... REPORT
Solubility (17g/qs 1000ml Water/ 5ml 20% Casamino) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J867-100G	100 g	Plastic bottle for solids

NZYM Broth powder, for biotechnology

NZYM Broth powder, for biotechnology

Used for the replication and maintenance of lambda bacteriophage (NZCYM without casamino acids).

Conductivity (10%, Water) @ 25 °C ..... REPORT
pH (17 g/qs 1000 ml Water/ 5 ml 20% Casamino Acid) ..... REPORT
Solubility (17 g/qs 1000 ml Water/ 5 ml 20% Casamino) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J866-500G	500 g	Plastic bottle for solids

SOB Broth, for biotechnology

SOB Broth, for biotechnology

Used for the preparation of nutritionally rich growth medium and transformation of competent *E. coli*.

Conductivity (1:10) @ 25 °C (µmhos) ..... REPORT
pH @ 25 °C ..... 6.4 – 7.3
Solubility (25.6 g/ 20 ml 1 M $MgSO_4$, 1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J906-100G	100 g	Plastic bottle for solids
J906-500G	500 g	Plastic bottle for solids

YPD Broth

YPD Broth for biotechnology

Used for the propagation and maintenance of yeasts.

Conductivity @ 25 °C (µmhos) ..... REPORT
pH @ 25 °C ..... 6.0 – 7.0
Solubility (50 g/ 1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J903-500G	500 g	Plastic bottle for solids

M63 Medium Broth

M63 Medium Broth for biotechnology

A minimal medium used for the cultivation and propagation of *E. coli*.

Conductivity (1:10) @ 25 °C (µmhos) ..... REPORT
Solubility (15.6 g/ 1000 ml Water) (P/F) ..... PASS

Cat. No.	Pk	Pack type
J910-100G	100 g	Plastic bottle for solids
J910-500G	500 g	Plastic bottle for solids

M9 Medium Broth powder

M9 Medium Broth powder for biotechnology

A minimal medium used for the preparation of recombinant *E. coli* strains. Can maintain bacteria for use with M13.

Conductivity (1:10) @ 25 °C (µmhos) ..... REPORT
Solubility (15.6 g/ 1000 ml Water) (P/F) ..... PASS

Cat. No.	Pk	Pack type
J863-100G	100 g	Plastic bottle for solids
J863-500G	500 g	Plastic bottle for solids

M9CA Medium Broth powder

M9CA Medium Broth powder for biotechnology

A minimal medium supplemented with casamino acids used for the preparation of recombinant *E. coli* strains.

Conductivity (10%, Water) @ 25 °C (µmhos) ..... REPORT
pH (12.5 g/qs 1000 ml Water) @ 25 °C ..... REPORT
Solubility (12.5 g/qs 1000 ml Water) ..... PASS

Cat. No.	Pk	Pack type
J864-100G	100 g	Plastic bottle for solids

YM Medium Broth

YM Medium Broth for biotechnology

Used for the preparation of aciduric microorganisms like yeasts and moulds. Increases transformation efficiency during electroporation of Agrobacterium.

Conductivity (1:10) @ 25 °C (µmhos) ..... REPORT
pH @ 25 °C ..... 7.8 – 8.2
Solubility (11.2 g/1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J904-100G	100 g	Plastic bottle for solids
J904-500G	500 g	Plastic bottle for solids

Superbroth powder

Superbroth powder for biotechnology

Rich medium used for obtaining high yields of lambda phage in liquid lysates.

Conductivity (10% dilution pH soln., Water) (µmhos) ..... REPORT
pH (57 g/5 ml 1 N NaOH/qs 1000 ml Water) @ 25 °C ..... 7.0 – 7.4
Reassay Date ..... REPORT
Solubility (57 g/5 ml 1 N NaOH/qs 1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J868-100G	100 g	Plastic bottle for solids
J868-500G	500 g	Plastic bottle for solids

Terrific broth powder, for biotechnology

Terrific broth powder for biotechnology

Used for the preparation of molecular genetic strains of *E. coli*. Supports higher density of cells to increase plasmid yield.

Conductivity (10%, Water) @ 25 °C (µmhos) ..... 1000 – 3000
pH (47.6 g/1000 ml Water) @ 25 °C ..... 7.0 – 7.4
Solubility (47.6 g/1000 ml Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J869-100G	100 g	Plastic bottle for solids
J869-500G	500 g	Plastic bottle for solids

Terrific broth, liquid, for biotechnology

Terrific broth, liquid for biotechnology

Used for the preparation of *E. coli*. Supports higher density of cells to increase plasmid yield.

Bioburden (Milliflex) (P/F) ..... NONE
pH @ 25 °C ..... 6.95 – 7.45
Refractive Index ..... 6.95 – 7.45
Specific Gravity @ 20 °C ..... 1.0232 – 1.0265

Cat. No.	Pk	Pack type
1B1494-1L	1 l	Plastic bottle

Tryptone broth powder

Tryptone broth powder for biotechnology

Used for the cultivation of *E. coli*.

Conductivity (10%, Water) @ 25 °C (µmhos) ..... REPORT
pH @ 25 °C (15 g/1000 ml, Water) ..... 6.8 – 7.2
Solubility (15 g/1000 ml, Water) ..... PASS
Supports Growth of Bacteria ..... PASS

Cat. No.	Pk	Pack type
J870-100G	100 g	Plastic bottle for solids
J870-500G	500 g	Plastic bottle for solids

BROXO salt tablets

See Sodium chloride p.434

BSA

See Albumin from bovine serum (BSA) p.20

BSA solution (0.5 g/ml)

BSA solution (0.5 g/ml) for biotechnology

A 0.5 mg/ml BSA solution.

Cat. No.	Pk	Pack type
E531-1.5ML	1	Plastic tube

Buffer solutions, 20 °C AVS TITRINORM®

- Solutions prepared from AnalaR® NORMAPUR® grade analytical reagents
- True analytical value on the label to an accuracy of ± 0,02 pH units (pH 1- 10) (± 0,05 for pH 12.00 buffer)
- Traceable to SRM from NIST
- Batch number and packing date for traceability
- Certificate of analysis available from www.vwr.com

For full information concerning health and safety data please see the www.vwr.com website.

If significant large volumes are required please contact the VWR sales office for a customised offer.

Description	pH value	Pk	Cat. No.	Pack type
Buffer solutions in bottles				
Buffer solution pH 1,00 (20 °C, glycine buffer) ± 0,02 pH-units AVS TITRINORM®	1,00	1 l	32031.297	Plastic bottle
Buffer solution pH 2,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	2,00	1 l	32032.291	Plastic bottle
Buffer solution pH 3,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	3,00	1 l	32033.294	Plastic bottle
	3,00	5 l	32033.374	Bag-in-box (Cubitainer)
Buffer solution pH 4,00 (20 °C) (Potassium hydrogen phthalate) ±0,02 pH-units AVS TITRINORM®	4,00	500 ml	32095.264	Plastic bottle
	4,00	1 l	32095.297	Plastic bottle
	4,00*	5 l	32095.366	Plastic bottle
	4,00**	5 l	32095.377	Bag-in-box (Cubitainer)
Buffer solution pH 4 red coloured (potassium hydrogen phthalate) AVS TITRINORM®	4,00 (red coloured)	500 ml	32044.268	Plastic bottle
	4,00 (red coloured)***	1 l	32044.290	Dosing Bottle (Plastic)
	4,00 (red coloured)	1 l	32044.292	Plastic bottle
Buffer solution pH 4,66 (20 °C) (Acetic acid/Sodium acetate) ±0,02 pH-units AVS TITRINORM®	4,66	500 ml	98192.260	Plastic bottle
	4,66	1 l	98192.290	Plastic bottle
Buffer solution pH 5,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	5,00	1 l	32035.291	Plastic bottle
Buffer solution pH 6,.00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	6,00	1 l	32036.294	Plastic bottle
Buffer solution pH 6.88 (20°C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ± 0.02 pH-units AVS TITRINORM®	6,88	500 ml	83601.260	Plastic bottle
	6,88	1 l	83601.290	Plastic bottle
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00	500 ml	32096.267	Plastic bottle
	7,00	1 l	32096.291	Plastic bottle
	7,00*	5 l	32096.360	Plastic bottle
	7,00**	5 l	32096.371	Bag-in-box (Cubitainer)
	7,00	10 l	32096.400	Bag-in-box (Cubitainer)
Buffer solution pH 7,00 (20 °C) green coloured (Potassium hydrogen phthalate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00 (green coloured)	500 ml	32045.262	Plastic bottle
	7,00 (green coloured)***	1 l	32045.290	Dosing Bottle (Plastic)
	7,00 (green coloured)	1 l	32045.295	Plastic bottle
	7,00 (green coloured)	5 l	32045.375	Bag-in-box (Cubitainer)
Buffer solution pH 8,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	8,00	1 l	32038.291	Plastic bottle
Buffer solution pH 9,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	9,00	500 ml	32039.261	Plastic bottle
	9,00	1 l	32039.294	Plastic bottle
	9,00	5 l	32039.374	Bag-in-box (Cubitainer)
Buffer solution pH 9.00 blue coloured (boric acid/potassium chloride/sodium hydroxide) AVS TITRINORM®	9,00 (blue coloured)	500 ml	32046.265	Plastic bottle
	9,00 (blue coloured)***	1 l	32046.290	Dosing Bottle (Plastic)
	9,00 (blue coloured)	1 l	32046.298	Plastic bottle
	9,00 (blue coloured)	5 l	32046.378	Bag-in-box (Cubitainer)
Buffer solution pH 9,22 (20 °C, borate buffer) ± 0,02 pH units AVS TITRINORM®	9,22	500 ml	32097.261	Plastic bottle
	9,22	1 l	32097.290	Plastic bottle
Buffer solution pH 10 (boric acid/sodium hydroxide/potassium chloride) AVS TITRINORM®	10,00	1 l	32040.298	Plastic bottle
	10,00	5 l	32040.378	Bag-in-box (Cubitainer)
Buffer ammonia solution pH 10 (20°C) ± 0.05 pH-units AVS TITRINORM® (NFT 90-003 standard)	10,00 (Total hardness in water)	500 ml	98213.260	Plastic bottle
Buffer solution pH 11,00 (20 °C) (di-Sodium hydrogen phosphate/Sodium hydroxide) ±0,05 pH-units AVS TITRINORM®	11,00	1 l	32041.292	Plastic bottle
Buffer solution pH 12,00 (20 °C) (di-Sodium hydrogen phosphate/Sodium hydroxide) ± 0,05 pH-units AVS TITRINORM®	12,00	1 l	32042.295	Plastic bottle
Buffer solution sets				
Buffer solution set pH 4,00 / 7,00 / 10,00 (3×100 ml), coloured		1	83610.600	Plastic bottle
Buffer solutions set pH 4,00 / 7,00 / 10,00 (3×250 ml), coloured		3 x 250 ml	83610.610	Plastic bottle
Buffer and cleaning/storage solution set				
Buffer and checking solution set pH 4,00 / 7,00 / 10,00, and electrolyte and cleaning solutions (100 ml)		1 SET	83609.600	Plastic bottle

* 5 litre plastic bottle
** Bag in a box 5 litre
*** 1 litre dosing bottles

Buffer solutions, secondary standards

- Solution standardised at 25 °C, compliant with DIN 17025
- Accurate to ±0,010 pH units (except buffer 12.454 with accuracy 0,050)
- Fully traceable for optimum pH calibration (traceable to NIST)
- Supplied with detailed certificate of analysis
- Temperature dependence data is printed on the labels as are batch number and expiry date

pH value	Pk	Cat. No.	Pack type
1,679	500 ml	84580.260	Plastic bottle
3,776	500 ml	84581.260	Plastic bottle
4,005	500 ml	84582.260	Plastic bottle
6,865	500 ml	84583.260	Plastic bottle
7,413	500 ml	84584.260	Plastic bottle
9,18	500 ml	84585.260	Plastic bottle
10,012	500 ml	84586.260	Plastic bottle
12,454	500 ml	84587.260	Plastic bottle

BUFFER - Solutions, mixtures and tablets

VWR International supplies a full range of materials for the preparation of buffer systems as well as buffer solutions, tablets and standards including biological buffers.

Buffer pH 4.00 (20°C) ± 0.02 pH-units, tablets to produce a buffer solution

Each tablet produces 100 ml of solution.

Cat. No.	Pk	Pack type
331542Q	50 Tab.	Plastic tube

Buffer pH 4.01 (25°C) ± 0.02 pH-units, capsules to produce a buffer solution

Traceable to SRM from NIST

Colour coded
Each capsule produces 100 ml solution

Cat. No.	Pk	Pack type
332732B	50	Plastic tube

Buffer pH 6.80 (20°C), tablets GURR® for preparing buffer solution according to Weise, for staining blood smears

Each tablet produces 100 ml solution. Molarity of the buffer solution is 0.005M. Contains potassium, sodium and phosphate.

pH-value (1 tablet in 1 l of water) ..... 6.75 to 6.95
Crushing strength ..... Min 50 N
Weight (min) ..... Min 1.34 g
Weight (max) ..... Max 1.42 g
Disintegration time ..... Max 20 min
Suitability for blood-smear staining ..... Conforms

Cat. No.	Pk	Pack type
363112P	100 Tab.	Plastic bag

Technical data sheet and instructions available on vwr.com

Buffer pH 6.80 (20°C) ± 0.1 pH-units, tablets GURR® for preparation of microscopical staining solutions

Each tablet produces 100 ml solution. Molarity of the buffer solution is 0.005M. Contains potassium, sodium and phosphate.

Cat. No.	Pk	Pack type
331932D	50 Tab.	Plastic tube

Technical data sheet and instructions available on vwr.com

Buffer pH 7.00 (25°C) ± 0.02 pH-units, capsules to produce a buffer solution

Traceable to SRM from NIST

Colour coded.
Each capsule produces 100 ml solution.

Cat. No.	Pk	Pack type
332742D	50 Tab.	Plastic tube

Buffer pH 7.00 (20°C) ± 0.02 pH-units, tablets to produce a buffer solution

Each tablet produces 100 ml of solution.

Cat. No.	Pk	Pack type
331552S	50 Tab.	Plastic tube

Buffer pH 7.20 (20°C) ± 0.1 pH-units, tablets GURR® for preparation of microscopical staining solutions

Each tablet produces 100 ml solution. Molarity of the buffer solution is 0.005 M. Contains potassium, sodium and phosphate

Cat. No.	Pk	Pack type
331942F	50 Tab.	Plastic tube

Technical data sheet and instructions available on vwr.com.

Buffer pH 9.00 (20°C) ± 0.02 pH-units, tablets to produce a buffer solution

Each tablet produces 100 ml of solution.

Cat. No.	Pk	Pack type
331562U	50 Tab.	Plastic tube

Buffer pH 10.00 (25°C) ± 0.02 pH-units, capsules to produce a buffer solution

Traceable to SRM from NIST

Colour coded
Each capsule produces 100 ml solution

Cat. No.	Pk	Pack type
332762H	50 Tab.	Plastic tube

Buffer ready to use solutions AVS TITRINORM®

Buffer solution (glycine buffer) pH 1.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Glycine/sodium chloride/hydrochloric acid

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 0.98 to 1.02

Cat. No.	Pk	Pack type
32031.297	1 l	Plastic bottle

Buffer solution (citrate buffer) pH 2.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Citric acid/sodium hydroxide/hydrochloric acid

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 1.98 to 2.02

Cat. No.	Pk	Pack type
32032.291	1 l	Plastic bottle
32032.260	500 ml	Plastic bottle

Buffer solution (citrate buffer) pH 3.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Citric acid/sodium hydroxide/hydrochloric acid

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 2.98 to 3.02

Cat. No.	Pk	Pack type
32033.294	1 l	Plastic bottle
32033.374	5 l	Bag-in-box (Cubitainer)

NEW Buffer solution pH 3.5 Reag. Ph. Eur. 4000600

Cat. No.	Pk	Pack type
85669.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Buffer solution (phthalate buffer) pH 4.00 ± 0.02 (20°C) ± 0.02 pH-units AVS TITRINORM®

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 3.98 to 4.02
pH (25°C) (real value ± 0.02) ..... 3.98 to 4.02
Conforms to BDH 19034 ..... Passes test

Cat. No.	Pk	Pack type
32095.264	500 ml	Plastic bottle
32095.297	1 l	Plastic bottle
32095.366	5 l	Plastic bottle
32095.377	5 l	Bag-in-box (Cubitainer)
32095.184	100 ml	Plastic bottle

Buffer solution (acetate buffer) pH 4.66 (20°C) ± 0.02 pH-units AVS TITRINORM®

Acetic acid/sodium acetate

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 4.64 to 4.68

Cat. No.	Pk	Pack type
98192.260	500 ml	Plastic bottle
98192.290	1 l	Plastic bottle

Buffer solution (citrate buffer) pH 5.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Citric acid/sodium hydroxide

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 4.98 to 5.02

Cat. No.	Pk	Pack type
32035.291	1 l	Plastic bottle

Buffer solution (citrate buffer) pH 6.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Citric acid/sodium hydroxide

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 5.98 to 6.02

Cat. No.	Pk	Pack type
32036.294	1 l	Plastic bottle

Buffer solution (phosphate buffer) pH 6.88 (20°C) ± 0.02 pH-units AVS TITRINORM®

Potassium dihydrogen phosphate/di-sodium hydrogen phosphate

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 6.86 to 6.90

Cat. No.	Pk	Pack type
83601.260	500 ml	Plastic bottle
83601.290	1 l	Plastic bottle

Buffer solution (phosphate buffer) pH 7.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Potassium dihydrogen phosphate/di-sodium hydrogen phosphate

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 6.98 to 7.02
pH (25°C) (real value ± 0.02) ..... 6.96 to 7.00

Cat. No.	Pk	Pack type
32096.267	500 ml	Plastic bottle
32096.291	1 l	Plastic bottle
32096.360	5 l	Plastic bottle
32096.371	5 l	Bag-in-box (Cubitainer)
32096.400	10 l	Bag-in-box (Cubitainer)
32096.187	100 ml	Plastic bottle

Potassium phosphate buffer solution pH 7.5 (20°C) (0.2 mol/l) ± 0.2 pH-units

pH (20 °C) ..... 7.30 to 7.70

Cat. No.	Pk	Pack type
799187L	10 l	Plastic drum

Buffer solution (borate buffer) pH 8.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

di-Sodium tetraborate/hydrochloric acid

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 7.98 to 8.02

Cat. No.	Pk	Pack type
32038.291	1 l	Plastic bottle

Buffer solution (borate buffer) pH 9.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Boric acid/sodium hydroxide/potassium chloride

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 8.98 to 9.02

Cat. No.	Pk	Pack type
32039.261	500 ml	Plastic bottle
32039.294	1 l	Plastic bottle
32039.374	5 l	Bag-in-box (Cubitainer)

Buffer solution (borate buffer) pH 9.22 (20°C) ± 0.02 pH-units AVS TITRINORM®

di-Sodium tetraborate

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 9.20 to 9.24

Cat. No.	Pk	Pack type
32097.261	500 ml	Plastic bottle
32097.290	1 l	Plastic bottle

Buffer solution (borate buffer) pH 10.00 (20°C) ± 0.02 pH-units AVS TITRINORM®

Boric acid/potassium chloride/sodium hydroxide

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 9.98 to 10.02
pH (25°C) (real value ± 0.02) ..... 9.88 to 9.98
Conforms to BDH 19043 ..... Passes test

Cat. No.	Pk	Pack type
32040.298	1 l	Plastic bottle
32040.378	5 l	Bag-in-box (Cubitainer)
32040.185	100 ml	Plastic bottle

Buffer solution (phosphate buffer) pH 11.00 ± 0.02 (20°C) ± 0.02 pH-units AVS TITRINORM®

di-Sodium hydrogen phosphate/sodium hydroxide

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 10.98 to 11.02

Cat. No.	Pk	Pack type
32041.292	1 l	Plastic bottle

Buffer solution (phosphate buffer) pH 12.00 ± 0.05 (20°C) ± 0.05 pH-units AVS TITRINORM®

di-Sodium hydrogen phosphate/sodium hydroxide

Traceable to SRM from NIST

pH (20°C) (real value ± 0.05) ..... 11.95 to 12.05

Cat. No.	Pk	Pack type
32042.295	1 l	Plastic bottle

Buffer solution set pH 4.00-7.00-10.00 (20°C) AVS TITRINORM®

pH 4 (20°C) ..... 3.98 to 4.02
pH 7 (20°C) ..... 6.98 to 7.02
pH 10 (20°C) ..... 9.95 to 10.05

Cat. No.	Pk	Pack type
83610.600	1	Plastic bottle
83610.610	3 x 250 ml	Plastic bottle

Buffer and Checking solution set AVS TITRINORM®

(5 bottles, 100 ml)

This set contains: 100 ml buffer solution pH 4.00, 100 ml buffer solution pH 7.00, 100 ml buffer solution pH 10.00, 100 ml electrolytic solution KCl 3 mol/l, 100 ml cleaning Pepsin solution

Titer (KCl) ..... 2.95 to 3.05 mol/l
Electrode cleaning solution ..... Passes test
pH 4 (20°C) ..... 3.98 to 4.02
pH 7 (20°C) ..... 6.98 to 7.02
pH 10 (20°C) ..... 9.95 to 10.05

Cat. No.	Pk	Pack type
83609.600	1 SET	Plastic bottle

Coloured buffer solutions

These buffer solutions are distinctively coloured for easy identification. It is possible to see at a glance which pH standard is being used, thus reducing errors which can occur when standardizing pH meters etc. The solutions are electrometrically checked with reference to NIST standards.

Buffer solution (phthalate buffer) pH 4.00 (20°C), red coloured ± 0.02 pH-units AVS TITRINORM®

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 3.98 to 4.02

Cat. No.	Pk	Pack type
30925.418	10 l	Bag-in-box (Cubitainer)

Buffer solution (phthalate buffer) pH 4.00 (20°C), red coloured ± 0.02 pH-units AVS TITRINORM®

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 3.98 to 4.02

Cat. No.	Pk	Pack type
32044.268	500 ml	Plastic bottle
32044.290	1 l	Dosing Bottle (Plastic)
32044.292	1 l	Plastic bottle
32044.372	5 l	Bag-in-box (Cubitainer)

Buffer solution (phthalate phosphate buffer) pH 7.00 (20°C), green coloured ± 0.02 pH-units AVS TITRINORM®

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 6.98 to 7.02

Cat. No.	Pk	Pack type
30926.412	10 l	Bag-in-box (Cubitainer)

Buffer solution (phthalate phosphate buffer) pH 7.00 (20°C), green coloured ± 0.02 pH-units AVS TITRINORM®

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 6.98 to 7.02

Cat. No.	Pk	Pack type
32045.262	500 ml	Plastic bottle
32045.290	1 l	Dosing Bottle (Plastic)
32045.295	1 l	Plastic bottle
32045.375	5 l	Bag-in-box (Cubitainer)

Buffer solution (borate buffer) pH 9 (20°C), blue coloured ± 0.02 pH-units AVS TITRINORM®

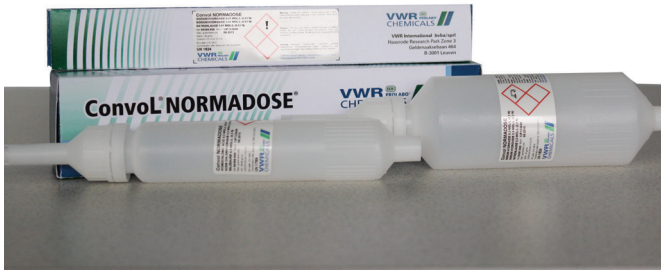
Boric acid/sodium hydroxide/potassium chloride

Traceable to SRM from NIST

pH (20°C) (real value ± 0.02) ..... 8.98 to 9.02

Cat. No.	Pk	Pack type
32046.265	500 ml	Plastic bottle
32046.290	1 l	Dosing Bottle (Plastic)
32046.298	1 l	Plastic bottle
32046.378	5 l	Bag-in-box (Cubitainer)

Buffer concentrated solutions ConvoL NORMADOSE®



Buffer solution (citrate buffer, concentrated) pH 2.00 (20°C) ± 0.05 pH-units ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

pH (20°C) ..... 1.95 to 2.05

Cat. No.	Pk	Pack type
32082.602	60 ml	Plastic ampoule

Buffer solution (citrate buffer, concentrated) pH 4.00 (20°C) ± 0.05 pH-units ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

pH (20°C) ..... 3.95 to 4.05

Cat. No.	Pk	Pack type
32084.608	170 ml	Plastic ampoule

Buffer ammonia solution pH 10 (20°C)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 2672
ADR 8,III
Storage Temperature: Ambient temperature

Buffer ammonia solution pH 10.00 (20°C) ± 0.05 pH-units AVS TITRINORM® for total hardness determination in water (NFT 90-003 standard)

Ammonium buffer solution for complexometry

pH (20°C) (real value ± 0.05) ..... 9.95 to 10.05

Cat. No.	Pk	Pack type
98213.260	500 ml	Plastic bottle

Buffer ammonia solution pH 10 (20°C) for hardness of water determinations

Cat. No.	Pk	Pack type
160204A	1 l	Glass bottle
160205B	2,5 l	Glass bottle

Buffer solutions, secondary standards

- Solution standardised at 25 °C, compliant with DIN 17025
- Accurate to ± 0,010 pH units (except buffer 12.454 with accuracy 0,050)
- Fully traceable for optimum pH calibration (traceable to NIST)
- Supplied with detailed Certificate of Analysis
- Temperature dependance data is printed on the labels as are batch number and expiry date

NEW Buffer solution pH 1.679 +/-0.010

Cat. No.	Pk	Pack type
84580.260	500 ml	Plastic bottle

NEW Buffer solution pH 3.776 +/-0.010

Cat. No.	Pk	Pack type
84581.260	500 ml	Plastic bottle

NEW Buffer solution pH 4.005 +/-0.010

Cat. No.	Pk	Pack type
84582.260	500 ml	Plastic bottle

NEW Buffer solution pH 6.865 +/-0.010

Cat. No.	Pk	Pack type
84583.260	500 ml	Plastic bottle

NEW Buffer solution pH 7.413 +/-0.010

Cat. No.	Pk	Pack type
84584.260	500 ml	Plastic bottle

NEW Buffer solution pH 9.180 +/-0.010

Cat. No.	Pk	Pack type
84585.260	500 ml	Plastic bottle

NEW Buffer solution pH 10.012 +/-0.010

Cat. No.	Pk	Pack type
84586.260	500 ml	Plastic bottle

NEW Buffer solution pH 12.454 +/-0.050

Cat. No.	Pk	Pack type
84587.260	500 ml	Plastic bottle

Buffer fish gelatin blocking 10%

VWR CHEMICALS Buffer fish gelatin blocking 10%, proteomics grade

A non mammalian blocking solution that will not cross-react with mammalian antibodies.

Cat. No.	Pk	Pack type
M319-100ML	100 ml	Plastic bottle
M319-500ML	500 ml	Plastic bottle

Buffered Peptone Water, preweighted

See Microbiology

1,4-Butanedioic acid

See Succinic acid p.483

2,3-Butanedione dioxime

See Dimethyl glyoxime p.150

n-Butanol

See 1-Butanol p.86

(±)-sec-Butanol

See (±)-2-Butanol p.87

iso-Butanol

See Isobutanol p.253

1-Butanol

1-Butyl alcohol , 1-Hydroxy butane , Propyl carbinol , n-Butanol

Danger
H226 H302 H335 H315 H318 H336
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 71-36-3
Index 603-004-00-6
EINECS: 200-751-6
UN: 1120
ADR 3,III
Flash Pt: 30 °C

$H_3C(CH_2)_2CH_2OH$
M.W. 74.12 g/mol
Density: 0.812 g/cm³ (20 °C)
Boiling Pt: 117.6 °C (1013 hPa)
Melting Pt: -89 °C
Storage Temperature: Ambient temperature

1-Butanol HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.8 %
Water ..... Max. 0.1 %
Non-volatile residue ..... Max. 0.001 %
Acidity ..... Max. 0.0005 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Transmittance (230 nm) ..... Min. 50 %
Transmittance (240 nm) ..... Min. 80 %
Transmittance (310 nm) ..... Min. 98 %
Conforms to BDH 15287 ..... Passes test

Cat. No.	Pk	Pack type
83633.290	1 l	Glass bottle

NEW 1-Butanol SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.05 %
Transmittance (220 nm) ..... Min. 30 %
Transmittance (230 nm) ..... Min. 60 %
Transmittance (250 nm) ..... Min. 95 %
Transmittance (270 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
84709.290	1 l	Glass bottle

1-Butanol AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance) ..... Min. 99.5 %
Acidity or alkalinity ..... Max. 0.0005 meq/g
Colouration ..... Max. 10 APHA
Density (20/20) ..... 0.808 to 0.813
Butan-2-ol ..... Max. 0.05 %
Evaporation residue ..... Max. 10 ppm
Al (Aluminium) ..... Max. 0.5 ppm
Ba (Barium) ..... Max. 0.1 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.1 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Pb (Lead) ..... Max. 0.1 ppm
Zn (Zinc) ..... Max. 0.1 ppm
Conforms to Reag. Ph.Eur. ..... Passes test
IR Spectrum ..... Passes test
Boiling point ..... 117 to 119 °C
Density (20/4) ..... 0.807 to 0.812
Aldehydes + ketones (as C_3H_7CHO) ..... Max. 0.01 %
Dibutyl ether ..... Max. 0.2 %
Water ..... Max. 0.1 %
B (Boron) ..... Max. 0.02 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Sn (Tin) ..... Max. 0.1 ppm
Conforms to ACS ..... Passes test

Cat. No.	Pk	Pack type
20810.298	1 l	Glass bottle
20810.323	2,5 l	Glass bottle

1-Butanol GPR RECTAPUR®

Assay ..... Min. 98.5 %
Density (20/4) ..... 0.807 to 0.812
Distillation range ..... 117 to 119 °C
Evaporation residue ..... Max. 100 ppm

Cat. No.	Pk	Pack type
20808.291	1 l	Glass bottle
20808.325	2,5 l	Glass bottle
20808.360	5 l	Plastic bottle
20808.462	25 l	Metal drum

(±)-2-Butanol

(±)-2-Hydroxy butane , (±)-Ethyl methyl carbinol , (±)-Methyl ethyl carbinol , (±)-sec-Butyl alcohol , (±)-sec-Butanol

Danger
H226 H319 H335 H336
P210 P243 P280 P304+P340 P305+P351+P338 P312

CAS 78-92-2
Index 603-127-00-5
EINECS: 201-158-5
UN: 1120
ADR 3,III
Flash Pt: 23 °C

$H_3CCH_2CH(OH)CH_3$
M.W. 74.12 g/mol
Density: 0.8534 g/cm³ (20 °C)
Boiling Pt: 94 °C (1013 hPa)
Melting Pt: -115 °C
Storage Temperature: Ambient temperature

(±)-2-Butanol analytical reagent

Assay (on anhydrous substance) ..... Min. 99.0 %
Acidity ..... Max. 0.0005 meq/g
Density (20/4) ..... 0.805 to 0.809
Distillation range ..... 98.5 to 100.5 °C
Evaporation residue ..... Max. 50 ppm
Water ..... Max. 0.2 %

Cat. No.	Pk	Pack type
20812.295	1 l	Glass bottle
20812.320	2,5 l	Glass bottle

(±)-2-Butanol GPR RECTAPUR®

Assay ..... Min. 98 %
Density (20/4) ..... 0.805 to 0.809
Distillation range ..... 98 to 101 °C
Evaporation residue ..... Max. 100 ppm

Cat. No.	Pk	Pack type
20811.292	1 l	Glass bottle
20811.326	2,5 l	Glass bottle

tert-Butanol

2-Methyl-2-propanol , tert-Butyl alcohol , Trimethylcarbinol

Danger
H225 H332 H319 H315
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 75-65-0
Index 603-005-00-1
EINECS: 200-889-7
UN: 1120
ADR 3,II
Flash Pt: 11 °C

$(CH_3)_3COH$
M.W. 74.12 g/mol
Density: 0.7887 g/cm³ (20 °C)
Boiling Pt: 82.2 °C (1013 hPa)
Melting Pt: 25.3 °C
Storage Temperature: Ambient temperature

tert-Butanol AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99.5 %
Boiling point ..... 81.5 to 83.5 °C
Density (26/4) ..... 0.770 to 0.780
Non-volatile residue ..... Max. 20 ppm
Conforms to Reag. Ph.Eur. ..... Passes test
Acidity ..... Max. 0.0002 meq/g
Colouration ..... Max. 10 APHA
Solidification point ..... 24 to 26 °C
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
20814.292	1 l	Glass bottle

tert-Butanol GPR RECTAPUR®

Assay ..... Min. 99 %
Density (26/4) ..... 0.770 to 0.780
Solidification point ..... 23.5 to 26.5 °C
Evaporation residue ..... Max. 100 ppm
Water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
20813.298	1 l	Glass bottle

2-Butanone

See Methyl ethyl ketone p.290

2-Butoxyethanol

Ethylene glycol monobutyl ether , Butyl cellosolve

Warning
H302+H312+H332 H319 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 111-76-2
Index 603-014-00-0
EINECS: 203-905-0
UN: 2810
ADR 6.1,III
Flash Pt: 50 °C

$CH_3(CH_2)_3OCH_2CH_2OH$
M.W. 118.18 g/mol
Density: 0.902 g/cm³ (20 °C)
Boiling Pt: 171 °C (1013 hPa)
Melting Pt: -70 °C
Storage Temperature: Ambient temperature

2-Butoxyethanol TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
22122.363	5 l	Plastic bottle

2-(2-Butoxyethoxy)ethanol

See Diethylene glycol monobutyl ether p.144

Butyl acetate

Acetic acid butyl ester

Danger
H226 H336
EUH066
P210 P243 P280 P304+P340 P312

CAS 123-86-4
Index 607-025-00-1
EINECS: 204-658-1
UN: 1123
ADR 3,III
Flash Pt: 25 °C

$CH_3COO(CH_2)_3CH_3$
M.W. 116.16 g/mol
Density: 0.875 g/cm³ (20 °C)
Boiling Pt: 126 °C (1013 hPa)
Melting Pt: -76 °C
Storage Temperature: Ambient temperature

Butyl acetate AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.0 %	Acidity	Max. 0.002 meq/g
Colouration	Max. 10 APHA	Density (20/4)	0.878 to 0.882
Evaporation residue	Max. 20 ppm	Heavy metals (as Pb)	Max. 0.2 ppm
Water	Max. 0.1 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm	Sn (Tin)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
22087.292	1 l	Glass bottle

Butyl acetate GPR RECTAPUR®

Assay	Min. 99 %
IR Spectrum	Passes test
Density (20/4)	0.870 to 0.880
Distillation range	124 to 128 °C

Cat. No.	Pk	Pack type
22081.326	2,5 l	Glass bottle
22081.361	5 l	Metal can
22081.463	25 l	Metal drum

Butyl acetate TECHNICAL

Assay	Min. 96 %

Cat. No.	Pk	Pack type
22080.298	1 l	Glass bottle

1-Butyl alcohol

See 1-Butanol p.86

(±)-sec-Butyl alcohol

See (±)-2-Butanol p.87

iso-Butyl alcohol

See Isobutanol p.253

tert-Butyl alcohol

See tert-Butanol p.87

Butyl carbinol

See 1-Pentanol p.346

Butyl cellosolve

See 2-Butoxyethanol p.87

tert-Butyl methyl ether

MTBE , 2-Methoxy-2-methylpropane

Danger
H225 H315
P210 P243 P280 P302+P352

CAS 1634-04-4
Index 603-181-00-X
EINECS: 216-653-1
UN: 2350
ADR 3,II
Flash Pt: -28 °C

$(CH_3)_3COCH_3$
M.W. 88.15 g/mol
Density: 0.7405 g/cm³ (20 °C)
Boiling Pt: 55.2 °C (1013 hPa)
Melting Pt: -108.6 °C
Storage Temperature: Ambient temperature

tert-Butyl methyl ether HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.5 %
Acidity	Max. 0.001 meq/g
Evaporation residue	Max. 10 ppm
Peroxides	Max. 5 ppm
Water	Max. 0.05 %
Transmittance (254 nm)	Min. 60 %
Transmittance (280 nm)	Min. 80 %

Cat. No.	Pk	Pack type
22105.295	1 l	Glass bottle

NEW tert-Butyl methyl ether SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.001 %
Water	Max. 0.02 %
Transmittance (240 nm)	Min. 55 %
Transmittance (250 nm)	Min. 75 %
Transmittance (260 nm)	Min. 85 %
Transmittance (270 nm)	Min. 93 %
Transmittance (280 nm)	Min. 95 %

Cat. No.	Pk	Pack type
84713.290	1 l	Glass bottle

tert-Butyl methyl ether TECHNICAL

Assay	Min. 99 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test
Water	Max. 0.2 %

Cat. No.	Pk	Pack type
22104.292	1 l	Glass bottle
22104.320	2,5 l	Glass bottle

Butyldigol

See Diethylene glycol monobutyl ether p.144

N-butyl-1-propanamine

See Dibutylamine p.140

Cadmium standard solution, 10,000 mg/l Cd in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-43-9
EINECS: 231-152-8
UN: 3264
ADR 8,III

Cd
M.W. 112.41 g/mol
Storage Temperature: Ambient temperature

Cadmium standard solution, 10,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP

Cd in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455152P	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-43-9
EINECS: 231-152-8
UN: 3264
ADR 8,III

Cd
M.W. 112.41 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP-MS

Cd in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456682R	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP

Cd in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455142N	100 ml	Plastic bottle
455144P	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86668.180	100 ml	Plastic bottle
86668.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cadmium acetate dihydrate

Acetic acid cadmium salt dihydrate , Cadmium di(acetate) dihydrate

Warning
H302+H312+H332 H410
P261 P273 P302+P352 P304+P340 P309+P311

CAS 5743-04-4
Index 048-001-00-5
EINECS: 208-853-2
UN: 2570
ADR 6.1,III

$(H_3CCOO)_2Cd.2H_2O$
M.W. 266.53 g/mol
Density: 2.341 g/cm³ (20 °C)
Boiling Pt: 105 to 107 °C (4 torr)
Melting Pt: 256 °C
Storage Temperature: Ambient temperature

Cadmium acetate dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ca (Calcium)	Max. 50 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 5 ppm
Na (Sodium)	Max. 20 ppm	Pb (Lead)	Max. 50 ppm
Zn (Zinc)	Max. 20 ppm		

Cat. No.	Pk	Pack type
22189.294	1 kg	Plastic bottle for solids

Cadmium di(acetate) dihydrate

See Cadmium acetate dihydrate p.89

Cadmium (II) chloride hydrate

Danger
H350 H340 H360FD H330 H301 H372 H410
P201 P281 P284 P273 P304+P340 P309+P310

CAS 34330-64-8
Index 048-008-00-3
EINECS: 233-296-7
UN: 2570
ADR 6.1,II

Restricted to professional users.

$CdCl_2.H_2O$
M.W. 201.33 g/mol
Density: 3.327 g/cm³ (25 °C)
Melting Pt: 565 °C

Cadmium (II) chloride hydrate GPR RECTAPUR®

Assay (calculated on dried substance)	Min. 98 %
Not precipitated by H_2S (as SO_4)	Max. 0.2 %
Water	3 to 20 %
SO_4 (Sulphate)	Max. 0.02 %
Cu (Copper)	Max. 20 ppm
Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 50 ppm
Zn (Zinc)	Max. 0.02 %

Cat. No.	Pk	Pack type
22203.261	500 g	Plastic bottle for solids

Cadmium (II) sulphate 8/3-hydrate

Danger
H350 H340 H360FD H330 H301 H372 H410
P201 P281 P284 P273 P304+P340 P309+P310

CAS 7790-84-3
Index 048-009-00-9
EINECS: 233-331-6
UN: 2570
ADR 6.1,III

Restricted to professional users.

$3CdSO_4 \cdot 8H_2O$
M.W. 256.51 g/mol
Density: 3.79 g/cm³ (20 °C)
Melting Pt: 41 °C

Cadmium (II) sulphate 8/3-hydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Acidity or alkalinity	Max. 0.005 meq/g
Insolubility in water	Max. 50 ppm	Not precipitated by H_2S (as SO_4)	Max. 0.2 %
Total N (Nitrogen)	Max. 20 ppm	Cl (Chloride)	Max. 10 ppm
As (Arsenic)	Max. 2 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm	Pb (Lead)	Max. 50 ppm
Zn (Zinc)	Max. 50 ppm		

Cat. No.	Pk	Pack type
22226.236	250 g	Plastic bottle for solids

Caffeine

7-Methyltheobromine , 2,6-Dihydroxy-1,3,7-trimethylpurine , 1,3,7-Trimethylxanthine , 3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione

Warning
H302
P301+P312

CAS 58-08-2
Index 613-086-00-5
EINECS: 200-362-1

$C_8H_{10}N_4O_2$
M.W. 194.19 g/mol
Density: 1.23 g/cm³ (19 °C)
Melting Pt: 235 to 239 °C
Storage Temperature: Ambient temperature

Caffeine AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Appearance	White crystalline powder
Acidity	Max. 0.005 meq/g	Melting point	235 to 238 °C
Substances coloured by H_2SO_4	Max. 60 APHA	Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.1 %	Insolubility in water (± 100°C)	Max. 25 ppm
Loss on drying (100°C)	Max. 0.5 %	Theobromine	Max. 0.2 %
Cl (Chloride)	Max. 100 ppm	SO_4 (Sulphate)	Max. 0.02 %

Cat. No.	Pk	Pack type
22234.187	100 g	Plastic bottle for solids

VWR CHEMICALS Caffeine USP

Heavy Metals	0.001 %
Identification	PASS
Loss on Drying	0.5 %
Organic Impurities: Individual Impurities	0.1 %
Organic Impurities: Total Impurities	0.1 %
Purity	98.5 - 101.0 %
Residue on Ignition	0.1 %

Cat. No.	Pk	Pack type
0150-500G	500 g	Glass bottle

Product is Tested to USP Specifications

Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-70-2
EINECS: 231-179-5
UN: 3264
ADR 8,III

Ca
M.W. 40.08 g/mol
Storage Temperature: Ambient temperature

Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ICP-MS

$CaCO_3$ in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457042S	100 ml	Plastic bottle

Supplied with certificate of analysis.

Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP

($CaCO_3$ in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455172T	100 ml	Plastic bottle
455174V	500 ml	Plastic bottle

Supplied with certificate of analysis.

Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-70-2
EINECS: 231-179-5
UN: 3264
ADR 8,III

Ca
M.W. 40.08 g/mol
Storage Temperature: Ambient temperature

Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ICP-MS

$CaCO_3$ in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456692T	100 ml	Plastic bottle

Supplied with certificate of analysis.

Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP

($CaCO_3$ in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455162R	100 ml	Plastic bottle
455164T	500 ml	Plastic bottle

Supplied with certificate of analysis.

Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ion chromatography

Ca in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458202U	100 ml	Plastic bottle

Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $Ca(NO_3)_2$) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86667.180	100 ml	Plastic bottle
86667.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Standard solution (1000 ppm Ca) for the preparation of Calcium standard solution (100 ppm Ca), alcoholic Reag.Ph.Eur.; 5000802

NEW

Standard solution (1000 ppm Ca) for the preparation of calcium standard solution (100 ppm Ca), alcoholic Reag.Ph.Eur.; 5000802

Cat. No.	Pk	Pack type
88085.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Calcium acetate

Acetic acid calcium salt , Calcium di(acetate)

CAS 62-54-4
EINECS: 200-540-9

$(H_3CCOO)_2Ca$
M.W. 158.17 g/mol
Density: 1.509 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

VWR CHEMICALS Calcium acetate, high purity

Chloride..... < 0.01 %
Heavy Metals..... <0.0025 %
Loss on Drying..... 7.0 %
Purity..... 99.0 %

Cat. No.	Pk	Pack type
0225-500G	500 g	Plastic bottle for solids

Calcium acetate hydrate

Acetic acid calcium salt hydrate , Calcium di(acetate) hydrate

CAS 114460-21-8
EINECS: 200-540-9

$(H_3CCOO)_2Ca.nH_2O$
M.W. 176.18 g/mol
Density: 1.5 g/cm³ (20 °C)

Calcium acetate hydrate analytical reagent

Assay..... Min. 93.5 %
pH (20°C; 5 %)..... 7.5 to 9.0
Heavy metals (as Pb)..... Max. 50 ppm
Cl (Chloride)..... Max. 100 ppm
SO_4 (Sulphate)..... Max. 0.1 %
Fe (Iron)..... Max. 10 ppm
K (Potassium)..... Max. 0.1 %
Na (Sodium)..... Max. 0.1 %

Cat. No.	Pk	Pack type
22268.264	500 g	Plastic bottle for solids

Calcium acetylide

Calcium acetylide

Danger
H260
P223 P231+P232 P280 P335+P334

CAS 75-20-7
Index 006-004-00-9
EINECS: 200-848-3
UN: 1402
ADR 4.3,II

CaC_2
M.W. 64.1 g/mol
Density: 2.22 g/cm³ (20 °C)
Melting Pt: 2300 °C

Calcium acetylide, small fragments TECHNICAL

The remainder is made of a mixture of free C, $Ca(CN)_2$, SiO_2, Al_2O_3
Assay..... Min. 73 %

Cat. No.	Pk	Pack type
22302.290	1 kg	Plastic bottle for solids

Calcium carbonate

Marble

CAS 471-34-1
EINECS: 207-439-9

$CaCO_3$
M.W. 100.09 g/mol
Density: 2.71 g/cm³ (20 °C)
Melting Pt: 825 °C
Storage Temperature: Ambient temperature

Calcium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent low in alkali, precipitated

Assay (calculated on dried substance)	98.5 to 100.5%	Ba (Barium)	Passes test
Heavy metals (as Pb)	Max. 20 ppm	Insolubility in hydrochloric acid	Max. 50 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.02 %	Al (Aluminium)	Max. 50 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 10 ppm
K (Potassium)	Max. 100 ppm	Mg (Magnesium)	Max. 0.05 %
Na (Sodium)	Max. 0.2 %	Pb (Lead)	Max. 5 ppm
Sr (Strontium)	Max. 0.1 %	Conforms to BDH 10068	Passes test

Cat. No.	Pk	Pack type
22300.233	250 g	Plastic bottle for solids
22300.290	1 kg	Plastic bottle for solids
22300.460	25 kg	Bucket (Plastic)

Calcium carbonate GPR RECTAPUR®, precipitated

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 0.03 %
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 0.03 %

Cat. No.	Pk	Pack type
22296.294	1 kg	Plastic bottle for solids

Calcium carbonate, powder TECHNICAL

Assay Min. 95 %

Cat. No.	Pk	Pack type
22290.363	5 kg	Bucket (Plastic)

Calcium carbonate light

CAS 471-34-1
EINECS: 207-439-9

$CaCO_3$
M.W. 100.09 g/mol
Density: 2.93 g/cm³ (20 °C)
Melting Pt: 825 °C
Storage Temperature: Ambient temperature

Calcium carbonate light TECHNICAL, precipitated

Assay Min. 95 %

Cat. No.	Pk	Pack type
22291.366	5 kg	Bucket (Plastic)

Calcium chloride

Chloro calcium

Warning
H319
P280 P305+P351+P338

CAS 10043-52-4
Index 017-013-00-2
EINECS: 233-140-8

$CaCl_2$
M.W. 110.98 g/mol
Density: 2.174 g/cm³ (20 °C)
Boiling Pt: 1600 °C (1013 hPa)
Melting Pt: 772 °C
Storage Temperature: Ambient temperature

Calcium chloride, granules GPR RECTAPUR® 2-5 mm, purified

Assay Min. 94 %

Cat. No.	Pk	Pack type
22328.262	500 g	Plastic bottle for solids
22328.364	5 kg	Bucket (Plastic)

Calcium chloride, dry, granules 5-15 mm, purified

Assay Min. 90 %

Cat. No.	Pk	Pack type
22316.261	500 g	Plastic bottle for solids
22316.363	5 kg	Bucket (Plastic)

Calcium chloride TECHNICAL

Assay 94 to 97 %

Cat. No.	Pk	Pack type
22313.294	1 kg	Plastic bottle for solids
22313.363	5 kg	Bucket (Plastic)
22313.460	25 kg	Bucket (Plastic)

Calcium chloride dihydrate

Warning
H319
P280 P305+P351+P338

CAS 10035-04-8
Index 017-013-00-2
EINECS: 233-140-8

$CaCl_2.2H_2O$
M.W. 147.01 g/mol
Density: 1.85 g/cm³ (20 °C)
Boiling Pt: 1600 °C (1013 hPa)
Melting Pt: 176 °C
Storage Temperature: Ambient temperature

Calcium chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Solution in water	Passes test
Acidity or alkalinity	Max. 0.002 meq/g	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 100 ppm	Not precipitated by $(COONH_4)_2$ (as SO_4)	Max. 0.2 %
Total N (Nitrogen)	Max. 20 ppm	PO_4 (Phosphate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	As (Arsenic)	Max. 1 ppm
Ba (Barium)	Max. 30 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 3 ppm	K (Potassium)	Max. 100 ppm
Mg (Magnesium)	Max. 50 ppm	Na (Sodium)	Max. 100 ppm
Pb (Lead)	Max. 5 ppm	Sr (Strontium)	Max. 0.05 %

Cat. No.	Pk	Pack type
22317.230	250 g	Plastic bottle for solids
22317.260	500 g	Plastic bottle for solids
22317.297	1 kg	Plastic bottle for solids
22317.320	2,5 kg	Plastic bottle for solids
22317.460	25 kg	Bucket (Plastic)

Calcium chloride dihydrate Ph. Eur.

Assay	97.0 to 103.0 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
SO_4 (Sulphate)	Max. 300 ppm
Al (Aluminium)	Passes test
Ba (Barium)	Passes test
Fe (Iron)	Max. 10 ppm
Magnesium and alkali metals	Max. 0.5 %
Heavy metals (as Pb)	Max. 20 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
22322.295	1 kg	Plastic bottle for solids
22322.364	5 kg	Bucket (Plastic)
22322.466	25 kg	Bucket (Plastic)

Calcium chloride dihydrate Electran® Molecular biology grade

Appearance	White/almost white powder
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Assay	Min. 99.5 %
pH (5 %)	4.5 to 6.5
Heavy metals (as Pb)	Max. 0.0005 %
F (Fluoride)	Max. 0.005 %
SO_4 (Sulphate)	Max. 0.005 %
Al (Aluminium)	Max. 0.0001 %
As (Arsenic)	Max. 0.0001 %
Cu (Copper)	Max. 0.0005 %
Fe (Iron)	Max. 0.001 %
Pb (Lead)	Max. 0.0005 %
Zn (Zinc)	Max. 0.0005 %

Cat. No.	Pk	Pack type
437053L	250 g	Plastic bottle for solids
437055N	1 kg	Plastic bottle

Calcium chloride hexahydrate

Warning
H319
P280 P305+P351+P338

CAS 7774-34-7
Index 017-013-00-2
EINECS: 233-140-8

$CaCl_2.6H_2O$
M.W. 219.08 g/mol
Density: 1.71 g/cm³ (25 °C)
Melting Pt: 29.54 °C
Storage Temperature: Ambient temperature

Calcium chloride hexahydrate GPR RECTAPUR®

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
22311.297	1 kg	Plastic bottle for solids
22311.366	5 kg	Plastic bottle for solids

Calcium chloride (1 - 3.5 mol/l; 2 - 7 N) in aqueous solution

CAS 10043-52-4
EINECS: 233-140-8

$CaCl_2$
Storage Temperature: Ambient temperature

Calcium chloride 1 mol/l in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
190464K	1 l	Plastic bottle

Calcium chloride 1 mol/l in aqueous solution for biotechnology, sterile

Identification	PASS
Sterility	PASS
Titration	0.95 - 1.05 M

Cat. No.	Pk	Pack type
E506-100ML	100 ml	Plastic bottle
E506-500ML	500 ml	Plastic bottle

Calcium chloride (< 1 mol/l; < 2 N) in aqueous solution

CAS 10043-52-4
EINECS: 233-140-8

$CaCl_2$
Storage Temperature: Ambient temperature

Calcium chloride 0.5 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1014601

Cat. No.	Pk	Pack type
87800.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Calcium chloride 0.02 mol/l (0.04 N) in aqueous solution Reag. Ph. Eur. 1014603

Cat. No.	Pk	Pack type
87802.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Calcium chloride 0.01 mol/l (0.02 N) in aqueous solution Reag. Ph. Eur. 1014602

Cat. No.	Pk	Pack type
87801.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Calcium di(acetate) hydrate

See Calcium acetate hydrate p.91

Calcium dihydroxide

See Calcium hydroxide p.94

Calcium fluoride

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7789-75-5
EINECS: 232-188-7

CaF_2
M.W. 78.08 g/mol
Density: 3.18 g/cm³ (20 °C)
Boiling Pt: 2500 °C (1013 hPa)
Melting Pt: 1418 °C

Calcium fluoride GPR RECTAPUR®, precipitated

Assay ..... Min. 98.0 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 100 ppm
Mg (Magnesium) ..... Max. 100 ppm
Mn (Manganese) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
22344.291	1 kg	Plastic bottle for solids

Calcium hydroxide

Calcium dihydroxide , Slaked lime

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 1305-62-0
EINECS: 215-137-3
UN: 3262
ADR 8,III

$Ca(OH)_2$
M.W. 74.09 g/mol
Density: 2.24 g/cm³ (20 °C)
Melting Pt: 550 °C
Storage Temperature: Ambient temperature

Calcium hydroxide AnalaR NORMAPUR® analytical reagent

Assay ..... Min 98 %
Sulphates (SO_4) ..... Max 0.01 %
As (Arsenic) ..... Max 0.0001 %
Cu (Copper) ..... Max 0.001 %
K (Potassium) ..... Max 0.05 %
N (Nitrogen) ..... Max 0.005 %
Pb (Lead) ..... Max 0.001 %
Hydrochloric acid-insoluble matter ..... Max 0.02 %
Chloride (Cl) ..... Max 0.1 %
Ba (Barium) ..... Max 0.005 %
Fe (Iron) ..... Max 0.005 %
Mg (Magnesium) ..... Max 0.05 %
Na (Sodium) ..... Max 0.05 %
Sr (Strontium) ..... Max 0.05 %

Cat. No.	Pk	Pack type
10304KA	25 kg	Cardboard carton

Calcium hydroxide GPR RECTAPUR®

Assay (at filling) ..... Min. 96 %
Heavy metals (as Pb) ..... Max. 50 ppm
Insolubility in hydrochloric acid ..... Max. 0.1 %
Not precipitated by ($COONH_4$)₂ (as SO_4) ..... Max. 2.5 %
Cl (Chloride) ..... Max. 50 ppm
CO_3 (as $CaCO_3$) ..... Max. 3.0 %
SO_4 (Sulphate) ..... Max. 0.2 %
Fe (Iron) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
22355.298	1 kg	Plastic bottle for solids
22355.367	5 kg	Bucket (Plastic)

Calcium hydroxide TECHNICAL

Assay (at filling) ..... Min. 95 %

Cat. No.	Pk	Pack type
22641.460	25 kg	Bucket (Plastic)

Calcium hypochlorite in aqueous solution

Danger
H272 H332 H314 H400
EUH031
P210 P280 P273 P301+P330+P331 P304+P340
P309+P310

CAS 7778-54-3
Index 017-012-00-7
EINECS: 231-908-7

$Ca(OCl)_2$

Calcium hypochlorite 60% Cl_2 in aqueous solution TECHNICAL

(about 180° french chlorometic)

Assay (Active chlorine)(at filling) ..... Min. 61 %

Cat. No.	Pk	Pack type
22669.293	1 kg	Plastic bottle for solids
22669.362	5 kg	Plastic bottle for solids

Calcium nitrate tetrahydrate

Warning
H272
P210 P280

CAS 13477-34-4
EINECS: 233-332-1
UN: 1454
ADR 5.1,III

$Ca(NO_3)_2.4H_2O$
M.W. 200.12 g/mol
Density: 1.86 g/cm³ (20 °C)
Melting Pt: ~ 42 °C
Storage Temperature: Ambient temperature

Calcium nitrate tetrahydrate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 98.0 %
Acidity or alkalinity ..... Max. 0.005 meq/g
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Ba (Barium) ..... Passes test
Heavy metals (as Pb) ..... Max. 5 ppm
Not precipitated by ($COONH_4$)₂ (as SO_4) Max. 0.25 %
NH_4 (Ammonium) ..... Max. 20 ppm
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
22388.292	1 kg	Plastic bottle for solids

Calcium nitrate tetrahydrate GPR RECTAPUR®

Assay ..... Min. 98.0 %
Heavy metals (as Pb) ..... Max. 5 ppm
Cl (Chloride) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
22399.290	1 kg	Plastic bottle for solids

Calcium nitrate tetrahydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
22384.367	5 kg	Bucket (Plastic)

Calcium orthophosphate

See tri-Calcium phosphate p.95

Calcium oxide

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 1305-78-8
EINECS: 215-138-9

CaO
M.W. 56.08 g/mol
Density: 3.38 g/cm³ (20 °C)
Boiling Pt: 2850 °C (1013 hPa)
Melting Pt: 2580 °C
Storage Temperature: Ambient temperature

NEW Calcium oxide, lumps TECHNICAL

Assay ..... Min. 95 %

Cat. No.	Pk	Pack type
22642.360	5 kg	Bucket (Plastic)

Calcium oxide, powder TECHNICAL

Assay ..... Min. 92 %

Cat. No.	Pk	Pack type
22645.260	500 g	Plastic bottle for solids
22645.360	5 kg	Bucket (Plastic)

Calcium phosphate tribasic

See tri-Calcium phosphate p.95

Calcium phosphate

See tri-Calcium phosphate p.95

tri-Calcium phosphate

Calcium phosphate tribasic

CAS 7758-87-4
EINECS: 231-840-8

$Ca_3(PO_4)_2$
M.W. 310.18 g/mol
Density: 3.14 g/cm³ (20 °C)

tri-Calcium phosphate GPR RECTAPUR®

Assay (calculated as Ca) ..... 36.0 to 37.5 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 0.02 %
SO_4 (Sulphate) ..... Max. 0.25 %
Fe (Iron) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
22420.237	250 g	Plastic bottle for solids

Calcium propionate

Propionic acid calcium salt , Calcium dipropionate

CAS 4075-81-4
EINECS: 223-795-8

$(CH_3CH_2COO)_2Ca$
M.W. 186.22 g/mol
Melting Pt: Min. 300 °C

NEW Calcium propionate

Assay ..... Min. 94 %

Cat. No.	Pk	Pack type
22428.180	100 g	Plastic bottle for solids

Calcium removal from tissue sections prior to cutting and staining

See Decalcifier DC1 slow-acting p.133

Calcium stearate

Stearic acid calcium salt

CAS 1592-23-0
EINECS: 216-472-8

$C_{36}H_{70}CaO_4$
M.W. 607.03 g/mol
Density: 1.065 g/cm³ (20 °C)
Melting Pt: 147 to 149 °C
Storage Temperature: Ambient temperature

Calcium stearate TECHNICAL

Assay (calculated as CaO) ..... 9 to 11 %

Cat. No.	Pk	Pack type
22442.368	5 kg	Bucket (Plastic)

Calcium sulphate hemihydrate

Plaster of Paris

CAS 10034-76-1
EINECS: 231-900-3

$CaSO_4 \cdot 0{,}5H_2O$
M.W. 145.15 g/mol
Density: 2.73 g/cm³ (20 °C)
Melting Pt: Min. 1400 °C
Storage Temperature: Ambient temperature

Calcium sulphate hemihydrate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
22441.296	1 kg	Plastic bottle for solids

Calcium sulphate dihydrate

Plaster of Paris

CAS 10101-41-4
EINECS: 231-900-3

$CaSO_4 \cdot 2H_2O$
M.W. 172.17 g/mol
Density: 2.32 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Calcium sulphate dihydrate AnalaR NORMAPUR® analytical reagent

Assay ..... 99.0 to 102.0 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 50 ppm
NO_3 (Nitrate) ..... Passes test
Insolubility in hydrochloric acid ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
22452.294	1 kg	Plastic bottle for solids

Calcium sulphate dihydrate GPR RECTAPUR®, precipitated

Assay (complexometric) ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 100 ppm
Fe (Iron) ..... Max. 40 ppm

Cat. No.	Pk	Pack type
22451.360	5 kg	Bucket (Plastic)

Calcium sulphate saturated solution in water

CAS 7778-18-9
EINECS: 231-900-3

$CaSO_4$
M.W. 136.14 g/mol
Storage Temperature: Ambient temperature

Calcium sulphate saturated solution in water Reag. Ph. Eur. 1015201

Cat. No.	Pk	Pack type
87803.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Patton and Reeder's reagent

See Patton-Reeders reagent (Calconcarboxylic acid)..... p.340

Canada balsam

CAS 8007-47-4
EINECS: 232-362-2
Flash Pt: 43 °C
Density: 0.915 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Canada balsam TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
21776.137	25 g	Glass bottle
21776.183	100 g	Glass bottle

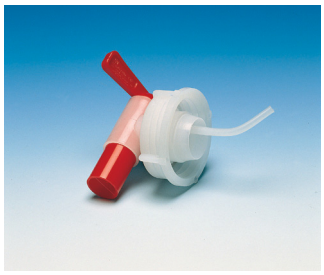
Capillary tubes for melting point determinations

Hard glass

- Open both ends

Description	Length	Ø ext.	Pk	Cat. No.
Capillary tubes, hard glass	100 mm	±1 mm	100	321242C

Caps



Description	Pk	Cat. No.
Cap with tap for 10 L (DIN51) plastic carboys	1	29548.042
Cap with tap for 25 L (DIN 61) plastic carboys	1	29548.043
Cap with pouring flex for 10 L (DIN 51) plastic carboys	1	29548.075
Cap with pouring flex for 20 or 25 L plastic carboys (DIN 61)	1	29548.086
Cap with tap for 10 litre plastic container	1	223-0059

Screw caps

Description	Thread	Pk	Cat. No.
Screw cap (clock), PP, black with PTFE liner	DIN 45	1	13015554

CAPS (3-(Cyclohexylamino) propanesulphonic acid)

CAS 1135-40-6
EINECS: 214-492-1

$C_6H_{11}NH(CH_2)_3SO_3H$
M.W. 221.32 g/mol
Melting Pt: 324 °C
Storage Temperature: Ambient temperature

CAPS (3-(Cyclohexylamino)propanesulphonic acid), high purity

pKa @25 °C ..... 10.3 - 10.5
Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0365-250G	250 g	Plastic bottle for solids
0365-500G	500 g	Plastic bottle for solids
0365-1KG	1 kg	Bucket (Plastic)

CAPS transfer buffer 10X

CAPS transfer buffer 10X, proteomics grade

For transfer of protein to membranes for sequencing or blotting.

Cat. No.	Pk	Pack type
K872-500ML	500 ml	Plastic bottle

Carbamide

See Urea p.527

N-(Carbamoylmethyl)taurine

See N-(2-Acetamido)-2-aminoethanesulphonic acid (ACES) p.1

Carbenicillin disodium salt

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 4800-94-6
EINECS: 225-360-8

$C_{17}H_{16}N_2Na_2O_6S$
Storage Temperature: 2 - 8°C

Carbenicillin disodium salt, ultrapure

Synthetic derivative of penicillin.

Expiration Date ..... REPORT
Identification (Sodium) ..... PASS
Moisture (KF) ..... 6.0 %
pH (1%, Water) @25 °C ..... 6.5 - 8.0
Potency (Anhydrous) ..... 770 mcg/mg

Cat. No.	Pk	Pack type
J358-250MG	250 mg	Glass bottle
J358-1G	1 g	Glass bottle

Carbinol

See Methanol p.285

Carbinol-D4

See Methanol-[D4] p.287

Carbol fuchsin Ziehl-Neelsen (strong)

Danger
H226 H341 H302+H312+H332 H314
P210 P243 P281 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 632-99-5
EINECS: 211-189-6
UN: 1992
ADR 3,III

$C_{20}H_{20}ClN_3$
Storage Temperature: Ambient temperature

Carbol fuchsin Ziehl-Neelsen (strong) GURR® for microscopical staining

Suitability ..... Passes test

Cat. No.	Pk	Pack type
350084R	500 ml	Plastic bottle

Technical data sheet and instructions available on vwr.com

Carbolic acid

See Phenol p.358

Carbon disulphide

Danger
H225 H361fd H372 H319 H315
P201 P210 P243 P281 P302+P352 P305+P351+P338
P309+P311

CAS 75-15-0
Index 006-003-00-3
EINECS: 200-843-6
UN: 1131
ADR 3,I
Flash Pt: -30 °C

CS_2
M.W. 76.14 g/mol
Density: 1.2632 g/cm³ (20 °C)
Boiling Pt: 46.2 °C (1013 hPa)
Melting Pt: -111.6 °C
Storage Temperature: Ambient temperature

Carbon disulphide AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.9 %	Acidity or alkalinity	Max. 0.0004 meq/g
Colouration	Max. 10 APHA	Density (20/4)	1.262 to 1.264
Evaporation residue	Max. 10 ppm	Foreign sulphur derivatives (as H_2S)	Max. 1 ppm
Water	Max. 100 ppm	SO_3 (as SO_2)	Max. 10 ppm
SO_4 (Sulphate)	Max. 2 ppm		

Cat. No.	Pk	Pack type
22518.292	1 l	Glass bottle

Carbon disulphide GPR RECTAPUR®

Assay ..... Min. 99 %
Density (20/4) ..... 1.262 to 1.264
Evaporation residue ..... Max. 100 ppm

Cat. No.	Pk	Pack type
22517.298	1 l	Glass bottle

Carbonyldiamide

See Urea p.527

Carborundum

CAS 409-21-2
EINECS: 206-991-8

SiC
M.W. 259.81 g/mol
Density: 3.23 g/cm³ (20 °C)
Boiling Pt: Min. 2700 °C (1013 hPa)
Melting Pt: 2700 °C

Carborundum TECHNICAL 0.037 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22540.298	1 kg	Plastic bottle for solids

Carborundum TECHNICAL 0.105 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22505.297	1 kg	Plastic bottle for solids

Carborundum TECHNICAL 0.210 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22499.295	1 kg	Plastic bottle for solids

Carborundum TECHNICAL 0.500 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22495.292	1 kg	Plastic bottle for solids

Carborundum TECHNICAL 1.190 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22490.295	1 kg	Plastic bottle for solids

Carborundum TECHNICAL 1.680 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
22488.297	1 kg	Plastic bottle for solids

Carbosorb (Sodium hydroxide on carrier)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
Index 011-002-00-6
UN: 3262
ADR 8,II

NaOH
Storage Temperature: Ambient temperature

Carbosorb AS, granules 0.78 - 1.4 mm (12 - 20 mesh), manufactured from synthetic silicates

A far better absorbent for CO_2 than soda lime and self-indicating when exhausted.

Absorption capacity in CO_2 ..... Min 35 %
Moisture ..... Max 10 %

Cat. No.	Pk	Pack type
331634T	500 g	Plastic bottle

Carboxymethyl cellulose sodium salt, low viscosity

CAS 9004-32-4
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Carboxymethyl cellulose sodium salt, low viscosity GPR RECTAPUR®

Identification ..... Passes test
pH (1 %) ..... 6.0 to 8.0
Viscosity (25 °C; 2 %; water) ..... 550 to 800 mPa.s
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 10 %

Cat. No.	Pk	Pack type
276494N	500 g	Plastic bottle for solids

Carboxymethyl cellulose sodium salt, medium viscosity

CAS 9004-32-4
Storage Temperature: Ambient temperature

Carboxymethyl cellulose sodium salt, medium viscosity TECHNICAL

Viscosity (25 °C; 2 %; water) ..... 400 to 1000 mPa.s
Water ..... Max. 8 %

Cat. No.	Pk	Pack type
22525.296	1 kg	Plastic bottle for solids

Carboxymethyl cellulose sodium salt, high viscosity

CAS 9004-32-4
Storage Temperature: Ambient temperature

Carboxymethyl cellulose sodium salt, high viscosity GPR RECTAPUR®

Loss on drying (110°C) ..... Max. 10 %
Viscosity (20 °C; 1 %; water) ..... 1500 to 2500 mPa.s

Cat. No.	Pk	Pack type
279294T	500 g	Plastic bottle

Cal-Red®

See Patton-Reeders reagent (Calconcarboxylic acid) p.340

Casein acc. to Hammarsten

CAS 9000-71-9
EINECS: 232-555-1

Casein acc. to Hammarsten, sterilized by irradiation

(An irradiated form of Casein (Hammarsten))

Cat. No.	Pk	Pack type
437245R	1 kg	Plastic bottle

Casein acc. to Hammarsten

High molecular weight phosphoprotein prepared from milk

Assay (ex N, calc. on dried substance) ..... Min 95 %
Free acid (as lactic acid) ..... Max 0.1 %
Water-soluble matter ..... Max 0.2 %
Fats ..... Max 0.1 %
Sulfated ash (800 °C) ..... Max 1.5 %
Microbiological test ..... passes test
Lactose (HPLC) ..... Max 0.5 %
Glucose (HPLC) ..... Max 0.5 %

Cat. No.	Pk	Pack type
440203H	100 g	Plastic bottle
44020LC	1 kg	Plastic bottle

Casein

CAS 9000-71-9
EINECS: 232-555-1
Density: 1.25 g/cm³ (20 °C)
Melting Pt: 280 °C
Storage Temperature: Ambient temperature

Casein, high purity

Loss on Drying ..... 10 %
Purity ..... 95 %
Residue on Ignition ..... 3 %
Solubility (2.5%, 0.02N NaOH) ..... PASS

Cat. No.	Pk	Pack type
E666-500G	500 g	Plastic bottle for solids

Casein TECHNICAL

Proteins (on anhydrous product) ..... Min. 92.5 %
Free acidity ..... Max. 0.25 meq/g
Fats ..... Max. 2.5 %
Ignition residue (SO_4) ..... Max. 2.75 %
Water ..... Max. 12 %

Cat. No.	Pk	Pack type
22544.292	1 kg	Plastic bottle for solids

Caspase-3 Inhibitor III (Ac-DEVD-CMK, Ac-ASP-GLU-VAL-ASP-CMK)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

$C_{21}H_{31}ClN_4O_{11}$
Storage Temperature: 2 - 8°C

Caspase-3 Inhibitor III (Ac-DEVD-CMK, Ac-ASP-GLU-VAL-ASP-CMK), reagent grade

A potent, cell-permeable and irreversible inhibitor of caspase-3, caspase-6, caspase-7, caspase-8 and caspase-10.

Purity (HPLC) ..... > 98 %
Solubility (10 mg/ml, DMSO) ..... PASS

Cat. No.	Pk	Pack type
N842-1MG	1 mg	Plastic tube
N842-5MG	5 mg	Plastic tube

Caspase-3 Inhibitor VII

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

$C_{20}H_{21}N_3O_7S$
Storage Temperature: 2 - 8°C

Caspase-3 Inhibitor VII, reagent grade

A cell permeable, non-peptidyl pyrroloquinoline compound that acts as a potent, reversible and non-competitive inhibitor of caspase-3.

Purity (HPLC) ..... > 97 %
Solubility (10 mg/ml, DMSO) ..... PASS

Cat. No.	Pk	Pack type
N843-1MG	1 mg	Plastic tube
N843-5MG	5 mg	Plastic tube

Caspase-3 substrate IV (Z-DEVD-AFC, Fluorogenic)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1177935-21-5

$C_{36}H_{38}F_3N_5O_{15}$
Storage Temperature: -20°C

Caspase-3 substrate IV (Z-DEVD-AFC, Fluorogenic), reagent grade

Purity (HPLC) ..... > 95 %
Solubility (50 mg/ml, DMSO) ..... PASS

Cat. No.	Pk	Pack type
N844-5MG	5 mg	Plastic tube
N844-50MG	50 mg	Plastic tube

Castor oil, sulphated

See Turkey Red Oil p.524

Catalysts for mineralization

See Mineralisation catalyst KJELTABS p.313

Cation exchange membranes

Cation exchange membranes 125,00 mm 125,00 mm

Cat. No.	Pk	Pack type
551652U	6	Cardboard carton

Cation multi component standard 1 in water with a trace of nitric acid

UN: 3264
ADR 8,III

Cation multi component standard 1 in water with a trace of nitric acid ARISTAR® for ion chromatography

Cation in dilute HNO_3

Ca ..... 1000 ppm
K ..... 200 ppm
Li ..... 50 ppm
Mg ..... 200 ppm
Na ..... 200 ppm
NH_4 ..... 400 ppm

Cat. No.	Pk	Pack type
458352K	100 ml	Plastic bottle

Cation multi component standard 2 in water with a trace of nitric acid

UN: 3264
ADR 8,III

Cation multi component standard 2 in water with a trace of nitric acid ARISTAR® for ion chromatography

Cation in dilute HNO_3

Ca ..... 100 ppm
K ..... 100 ppm
Li ..... 100 ppm
Mg ..... 100 ppm
Na ..... 100 ppm
NH_4 ..... 100 ppm

Cat. No.	Pk	Pack type
458362M	100 ml	Plastic bottle

Caustic potash

See Potassium hydroxide p.381

Caustic soda

See Sodium hydroxide p.444

CDTA monohydrate

See trans-1,2-Diaminocyclohexane-N,N,N′,N′-tetraacetic acid monohydratep.139

Celite® 545, filter aid

Warning
H373
P260 P314

CAS 61790-53-2

SiO_2
M.W. 60.08 g/mol

Celite® 545, filter aid TECHNICAL

Diatomaceous silica for filtration.

Identification ..... Passes test

Cat. No.	Pk	Pack type
22552.290	1 kg	Bucket (Plastic)

Celite® Hyflo® Super Cel, filter aid

Warning
H373

CAS 61790-53-2

SiO_2
M.W. 60.08 g/mol
Density: 2.3 g/cm³ (20 °C)
Boiling Pt: 2200 °C (1013 hPa)
Melting Pt: 1710 °C

Celite® Hyflo® Super Cel, filter aid TECHNICAL

Diatomaceous silica for filtration.

Identification ..... Passes test

Cat. No.	Pk	Pack type
24718.290	1 kg	Bucket (Plastic)
24718.365	5 kg	Bucket (Plastic)

Cellulase

Danger
H334
P261 P285 P304+P341 P342+P311

CAS 9012-54-8
Index 647-002-00-3
EINECS: 232-734-4

Cellulase (from Trichoderma viride)

10,000 units is the quantity of enzyme which will degrade 2 cm^2 of cellulose filter paper (17 mg) in 1 minute in 0.1 M acetate buffer at pH 4.0.

Cellulase activity (CMCase; pH 5.0) ..... Min. 280 U/g
Loss on drying (105 °C)..... Max. 10.00 %

Cat. No.	Pk	Pack type
390744E	50 g	Glass bottle

Cellulose methyl ether, 400 mPa.s (2% solution in water)

See Methyl cellulose, 400 mPa*s p.289

Cellulose methyl ether, 4,000 mPa.s (2% solution in water)

See Methyl cellulose, 4,000 mPa*s (2% solution in water) ..... p.xxx

Ceric sulphate tetrahydrate

See Cerium (IV) sulphate tetrahydrate..... p.100

Cerium (reagents for the analysis of)

1,10-Phenanthroline hydrochloride monohydrate analytical reagent..... p.357
8-Quinolinol AnalaR NORMAPUR® analytical reagent..... p.402

Cerium standard solution, 10,000 mg/l Ce in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-45-1
EINECS: 231-154-9
UN: 3264
ADR 8,III

Ce
M.W. 140.12 g/mol
Storage Temperature: Ambient temperature

Cerium standard solution, 10,000 mg/l Ce in dil. nitric acid (from $(NH_4)_2Ce(NO_3)_6$) ARISTAR® standard for ICP

$(NH_4)_2$ $Ce(NO_3)_6$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455192A	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-45-1
EINECS: 231-154-9
UN: 3264
ADR 8,III

Ce
M.W. 140.12 g/mol
Storage Temperature: Ambient temperature

Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid (from $(NH_4)_2Ce(NO_3)_6$) ARISTAR® standard for ICP

$(NH_4)_2$ $Ce(NO_3)_6$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455182V	100 ml	Plastic bottle
455184A	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86669.180	100 ml	Plastic bottle
86669.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cerium disulphate tetrahydrate

See Cerium (IV) sulphate tetrahydrate..... p.100

Cerium (IV) sulphate tetrahydrate

Ceric sulphate tetrahydrate , Cerium disulphate tetrahydrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 10294-42-5
EINECS: 237-029-5
UN: 3260
ADR 8,III

$Ce(SO_4)_2.4H_2O$
M.W. 404.3 g/mol
Density: 3.91 g/cm^3 (20 °C)
Melting Pt: 180 to 200 °C

Cerium (IV) sulphate tetrahydrate analytical reagent

Assay..... Min. 98.0 %
Heavy metals (as Pb) ..... Max. 50 ppm
Insolubility in diluted H_2SO_4..... Max. 50 ppm
Cl (Chloride) ..... Max. 10 ppm
PO_4 (Phosphate)..... Max. 100 ppm
Fe (Iron)..... Max. 50 ppm

Cat. No.	Pk	Pack type
22604.153	50 g	Plastic bottle for solids

Cerium (IV) sulphate in aqueous solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 13590-82-4
EINECS: 237-029-5
UN: 3264
ADR 8,III

$Ce(SO_4)_2$

Cerium (IV) sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
190475N	2,5 l	Glass bottle

Cerium (IV) sulphate 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
31307.294	1 l	Plastic bottle

Cerium (IV) ammonium nitrate

See Ammonium cerium (IV) nitrate p.31

Cerium (IV) ammonium sulphate dihydrate

See Ammonium cerium (IV) sulphate dihydrate p.31

Cesium standard solution, 10,000 mg/l Cs in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-46-2
EINECS: 231-155-4
UN: 3264
ADR 8,III

Cs
M.W. 132.91 g/mol
Storage Temperature: Ambient temperature

Cesium standard solution, 10,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP

$CsNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455212K	100 ml	Plastic bottle
455214M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-46-2
EINECS: 231-155-4
UN: 3264
ADR 8,III

Cs
M.W. 132.91 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP

$CsNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455202Y	100 ml	Plastic bottle
455204K	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86672.180	100 ml	Plastic bottle
86672.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cesium carbonate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 534-17-8
EINECS: 208-591-9

Cs_2CO_3
M.W. 325.82 g/mol
Density: 4.24 g/cm³ (20 °C)
Melting Pt: 610 °C
Storage Temperature: Ambient temperature

NEW Cesium carbonate NORMATOM®

Assay ..... Min. 99.9 %
Loss on drying (500°C) ..... Max. 0.5 %
di-Phosphorus pentoxide ..... Max. 15 ppm
Cl (Chloride) ..... Max. 100 ppm
NO_3 (Nitrate) ..... Max. 25 ppm
SiO_2 (Silicon dioxide) ..... Max. 40 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 10 ppm
Ba (Barium) ..... Max. 30 ppm
Ca (Calcium) ..... Max. 5 ppm
Cr (Chromium) ..... Max. 2 ppm
Fe (Iron) ..... Max. 3 ppm
K (Potassium) ..... Max. 0.02 %
Li (Lithium) ..... Max. 5 ppm
Mg (Magnesium) ..... Max. 2 ppm
Na (Sodium) ..... Max. 100 ppm
Rb (Rubidium) ..... Max. 0.02 %
Sr (Strontium) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
84840.180	100 g	Plastic bottle for solids
84840.260	500 g	Plastic bottle for solids

Cesium chloride

CAS 7647-17-8
EINECS: 231-600-2

CsCl
M.W. 168.36 g/mol
Density: 3.7808 g/cm³ (20 °C)
Boiling Pt: 1303 °C (1013 hPa)
Melting Pt: 646 °C
Storage Temperature: Ambient temperature

Cesium chloride AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Total N (Nitrogen)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm	Al (Aluminium)	Max. 5 ppm
Cu (Copper)	Max. 3 ppm	Fe (Iron)	Max. 3 ppm
K (Potassium)	Max. 20 ppm	Li (Lithium)	Max. 0.5 ppm
Mg (Magnesium)	Max. 5 ppm	Na (Sodium)	Max. 20 ppm
Pb (Lead)	Max. 1 ppm	Rb (Rubidium)	Max. 80 ppm
Zn (Zinc)	Max. 3 ppm		

Cat. No.	Pk	Pack type
22960.131	25 g	Plastic bottle for solids
22960.180	100 g	Plastic bottle for solids

Cesium chloride GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
22959.136	25 g	Plastic bottle for solids

Cesium chloride Gen-Apex®, high purity Molecular biology grade

Assay	Min. 99.99 %
Colouration (0.25 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 20 ppm
Transmittance (260 nm) (50 %)	Min. 99 %
Transmittance (280 nm) (50 %)	Min. 99 %

Cat. No.	Pk	Pack type
33605.297	1 kg	Plastic bottle for solids

Cesium chloride Electran® Molecular biology grade

Assay	Min. 99.5 %
Appearance	Colourless fine crystals
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Absorbance (260 nm) (3 mol/l)	Max. 0.1
Absorbance (280 nm) (3 mol/l)	Max. 0.02
Al (Aluminium)	Max. 0.0001 %
Ba (Barium)	Max. 0.0001 %
Ca (Calcium)	Max. 0.0001 %
Cr (Chromium)	Max. 0.0001 %
Fe (Iron)	Max. 0.0001 %
K (Potassium)	Max. 0.0005 %
Li (Lithium)	Max. 0.0001 %
Na (Sodium)	Max. 0.0005 %
Pb (Lead)	Max. 0.0001 %

Cat. No.	Pk	Pack type
443792F	100 g	Plastic bottle
443794H	500 g	Plastic bottle
443795Y	1 kg	Plastic bottle

VWR CHEMICALS Cesium chloride, ultrapure

Abs.@260 nm (50%, Water)	0.05
Chromium	0.0001 %
Copper	0.0001 %
Iron	0.0001 %
Lead	0.0001 %
Lithium	0.001 %
Magnesium	0.0001 %
Nickel	0.0001 %
Potassium	0.001 %
Purity	99.9 %
Rubidium	0.03 %
Sodium	0.03 %

Cat. No.	Pk	Pack type
0415-50G	50 g	Plastic bottle for solids
0415-100G	100 g	Plastic bottle for solids
0415-250G	250 g	Plastic bottle for solids
0415-500G	500 g	Plastic bottle for solids

Cetane

See n-Hexadecane p.213

Cetrimide agar

See Microbiology

Cetrimonium bromide

Cetyltrimethylammonium bromide , N-Cetyl-N,N,N-trimethylammonium bromide , CTAB , Hexadecyltrimethylammonium bromide

Warning
H302 H319 H335 H315 H410
P280 P273 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 57-09-0
EINECS: 200-311-3
UN: 3077
ADR 9,III
Flash Pt: 244 °C (closed cup)

$CH_3(CH_3)_{15}N(Br)(CH_3)_3$
M.W. 364.45 g/mol
Melting Pt: 237 to 243 °C
Storage Temperature: Ambient temperature

Cetrimonium bromide AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.1 %	Water	Max. 1.0 %
Fe (Iron)	Max. 10 ppm		

Cat. No.	Pk	Pack type
22610.132	25 g	Plastic bottle for solids

Cetyldimethylethylammonium bromide

Warning
H302 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 124-03-8
EINECS: 204-672-8
UN: 2811
ADR 6.1,III

$C_{20}H_{44}BrN$
Storage Temperature: Ambient temperature

Cetyldimethylethylammonium bromide, high purity

Cationic detergent.

Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0258-100G	100 g	Plastic bottle for solids

1-Cetylpyridinium chloride monohydrate

1-Hexadecylpyridinium chloride monohydrate

Danger
H330 H301 H319 H335 H315 H410
P280 P284 P273 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 6004-24-6
EINECS: 204-593-9
UN: 2811
ADR 6.1,I

$C_{21}H_{38}ClN.1H_2O$
M.W. 358.01 g/mol
Melting Pt: 77 to 83 °C
Storage Temperature: Ambient temperature

1-Cetylpyridinium chloride monohydrate TECHNICAL

Melting point ..... 80 to 84 °C

Cat. No.	Pk	Pack type
22608.180	100 g	Plastic bottle for solids

Cetyltrimethylammonium bromide

See Cetrimonium bromide p.102

N-Cetyl-N,N,N-trimethylammonium bromide

See Cetrimonium bromide p.102

CHAPS (3-[(3-Cholamidopropyl) dimethylammonio]-1-propane sulphate)

CAS 75621-03-3

$C_{32}H_{58}N_2O_7S$
M.W. 614.89 g/mol
Melting Pt: 116 °C
Storage Temperature: 2 - 8°C

CHAPS (3-[(3-Cholamidopropyl) dimethylammonio]-1-propane sulphate), ultrapure

Zwitterionic detergent.

Conductivity (10%, Water) ..... 50 umhos
DNase ..... NONE
Identification ..... PASS
pH (10%, Water) @25 °C ..... 5.0 - 7.0
Protease ..... NONE
Purity (TLC) ..... ONE SPOT
Residue on Ignition ..... 0.1 %
RNase ..... NONE
Solubility (20%, Water) ..... PASS

Cat. No.	Pk	Pack type
0465-5G	5 g	Plastic bottle for solids
0465-10G	10 g	Plastic bottle for solids
0465-50G	50 g	Plastic bottle for solids

CHAPS (3-[(3-Cholamidopropyl) dimethylammonio]-1-propane sulphate), proteomics grade

Zwitterionic detergent.

Conductivity (10%, Water) ..... 50 umhos
DNase ..... NONE
pH (10%, Water) @25 °C ..... 5.0 - 7.0
Protease ..... NONE
Purity (TLC) ..... ONE SPOT
Residue on Ignition ..... 0.1 %
RNase ..... NONE
Solubility (20 %, Water) ..... PASS

Cat. No.	Pk	Pack type
M127-5G	5 g	Plastic bottle
M127-10G	10 g	Plastic bottle
M127-50G	50 g	Plastic bottle

3-[(3-Cholamidopropyl) dimethylammonio]-1-propane sulphate (CHAPS) in aqueous solution

CAS 75621-03-3

$C_{32}H_{58}N_2O_7S$
Storage Temperature: 2 - 8°C

3-[(3-Cholamidopropyl)dimethylammonio]-1-propane sulphate (CHAPS) 10% in aqueous solution, reagent grade

Cat. No.	Pk	Pack type
N907-1L	1 l	Plastic bottle

Charcoal activated

Carbon activated

CAS 7440-44-0
EINECS: 231-153-3
UN: 1362
ADR 4.2,III

C
M.W. 12.01 g/mol
Density: 2 g/cm³ (20 °C)
Melting Pt: 3550 °C

Charcoal activated

Decolourising value ..... Min. 20 ml
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 7 %
Loss on drying (120°C) ..... Max. 8 %
Solubility in diluted HCl ..... Max. 10.0 %
Solubility in ethanol ..... Max. 0.2 %
Solubility in water ..... Max. 2.0 %
Soluble chlorides ..... Max. 0.1 %
Soluble sulphates ..... Max. 100 ppm
Ca (Calcium) ..... Max. 1 %
Fe (Iron) ..... Max. 0.03 %
Zn (Zinc) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
87126.230	250 g	Plastic bottle for solids

Charcoal activated, powder Ph. Eur.

Appearance	Fine black powder
Identification A	Passes test
Solution S	Passes test
Acidity or alkalinity	Passes test
Substances soluble in acid	Max. 3 %
Alkali-soluble coloured substances	Passes test
Alcohol-soluble substances	Max. 0.5 %
Fluorescent substances	Passes test
S (Sulphide)	Passes test
Cu (Copper)	Max. 25.0 ppm
Pb (Lead)	Max. 10.0 ppm
Zn (Zinc)	Max. 25.0 ppm
Loss on drying (120 °C)	Max. 15 %
Sulphated ash	Max. 5.0 %
Adsorption power (calculated on dried)	Min. 40 %
Microbial contamination	Passes test
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26009.186	100 g	Plastic bottle for solids
26009.360	5 kg	Plastic bottle for solids

Charcoal activated vegetable, powder TECHNICAL

Mean particle size	Max. 80 µm
Ignition residue	Max. 6 %
Water	Max. 10 %

Cat. No.	Pk	Pack type
22637.293	1 kg	Plastic bag

Charcoal activated, granulated for gas adsorption

Identification	Passes test
Benzene adsorption	33 to 37 %
Ignition residue	Max. 12 %
Loss on drying (105 °C)	Max. 10 %

Cat. No.	Pk	Pack type
22631.293	1 kg	Plastic bag
22631.362	5 kg	Plastic bottle for solids
22631.460	20 kg	Cardboard carton

China Clay

See Bole white (Kaolin) p.70

Chloral hydrate

2,2,2-Trichloroethane-1,1-diol

Danger
H301 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 302-17-0
Index 605-014-00-6
EINECS: 206-117-5
UN: 2811
ADR 6.1,III

$Cl_3CCH(OH)_2$
M.W. 165.4 g/mol
Density: 1.901 g/cm³ (20 °C)
Boiling Pt: 97.5 °C (1013 hPa)
Melting Pt: 52 °C
Storage Temperature: Ambient temperature

Chloral hydrate GPR RECTAPUR®

Melting point	49 to 54 °C
pH (10 %)	4.5 to 5.5
Evaporation residue	Max. 0.15 %
Heavy metals (as Pb)	Max. 100 ppm
Ignition residue (SO_4)	Max. 0.1 %
Cl (Chloride)	Max. 100 ppm

Cat. No.	Pk	Pack type
22682.265	500 g	Plastic bottle for solids

Chloral hydrate 80% in aqueous solution Reag. Ph. Eur. 1017901

Cat. No.	Pk	Pack type
87804.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Chloramine T (sodium salt) trihydrate

Chloramine T sodium salt trihydrate , Tosylchloramide sodium trihydrate

Danger
H302 H314 H334
EUH031
P280 P285 P301+P330+P331 P304+P341 P309+P310

CAS 7080-50-4
Index 616-010-00-9
EINECS: 204-854-7
UN: 3263
ADR 8,III
Flash Pt: 192 °C (closed cup)

$CH_3C_6H_4SO_2NClNa{\cdot}3H_2O$
M.W. 281.69 g/mol
Density: 1.43 g/cm³ (20 °C)
Melting Pt: 167 to 170 °C
Storage Temperature: Ambient temperature

Chloramine T (sodium salt) trihydrate TECHNICAL

Assay	Min. 98.0 %
Assay (Active chlorine)	Min. 12.3 %

Cat. No.	Pk	Pack type
22685.265	500 g	Plastic bottle for solids

Chloramphenicol

Danger
H350
P201 P281 P308+P313

CAS 56-75-7
EINECS: 200-287-4

Restricted to professional users.

$Cl_2CHCONHCH(CH_2OH)CH(OH)C_6H_4NO_2$
M.W. 323.13 g/mol
Density: 1.49 g/cm³ (20 °C)
Boiling Pt: 645 °C (1013 hPa)
Melting Pt: 150 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Chloramphenicol

Inhibits protein synthesis at peptidyltransferase. Recommended working concentration: 20 µg/ml.

Chromatographic Purity	PASS
Crystallinity	PASS
Expiration Date	REPORT
Identification	PASS
Melting Range (°C)	149 – 153
pH (2.5%, Water) @ 25 °C	4.5 – 7.5
Purity (%)	97.0 – 103.0
Specific Rotation (Degrees)	+17.0 – +20.0

Cat. No.	Pk	Pack type
0230-EU-100G	100 g	Plastic bottle for solids

Chloride standard solution, 1,000 mg/l Cl- in water

Density: 0.998 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Chloride standard solution, 1,000 mg/l Cl- in water (from NaCl) ARISTAR® standard for ion chromatography

(Cl in H_2O)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458012Q	100 ml	Plastic bottle
458014S	500 ml	Plastic bottle

Chloride standard solution, 200 mg/l Cl- in water

Storage Temperature: Ambient temperature

Chloride standard solution, 200 mg/l Cl- in water (from NaCl) ARISTAR® standard for ion chromatography

(Cl in H_2O)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458082H	100 ml	Plastic bottle

Free chlorine (reagents for the analysis of)

o-Tolidine TECHNICAL p.509
o-Tolidine 0.1 % (1.6 M) hydrochloric solution for chlorine determination in water according to the NF T 90-010 standard p.509

4-Chloro-1-naphthol

4-CN , 1-Chloro-4-hydroxynaphthalene

CAS 604-44-4
EINECS: 210-068-5

$ClC_{10}H_6OH$
M.W. 178.62 g/mol
Density: 1.2 g/cm³ (20 °C)
Boiling Pt: 307 °C (1013 hPa)
Melting Pt: 123 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS 4-Chloro-1-naphthol, ultrapure

Distinct blue-purple colour is easily photographed for blotting and immunohistochemical staining procedures.

Insolubles ..... 0.1 %
Melting Range ..... 118 - 121 °C
Purity ..... > 98 %
Solubility (10%, Methanol) ..... PASS

Cat. No.	Pk	Pack type
0398-25G	25 g	Plastic bottle for solids
0398-50G	50 g	Plastic bottle for solids

Chloroacetic acid

Danger
H301+H311+H331 H314 H335 H400
P280 P273 P301+P330+P331 P302+P352 P304+P340 P309+P310

CAS 79-11-8
Index 607-003-00-1
EINECS: 201-178-4
UN: 1751
ADR 6.1,II
Flash Pt: 126 °C

$ClCH_2COOH$
M.W. 94.5 g/mol
Density: 1.4043 g/cm³ (20 °C)
Boiling Pt: 188 °C (1013 hPa)
Melting Pt: 56 to 57 °C
Storage Temperature: Ambient temperature

Chloroacetic acid AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 0.5 %
SO_4 (Sulphate) ..... Max. 100 ppm
Melting point ..... 61 to 63 °C
Ignition residue (SO_4) ..... Max. 0.05 %
Cl (Chloride) ..... Max. 20 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20245.238	250 g	Plastic bottle for solids

tetra-Chloroauric (III) acid trihydrate

Hydrogen tetrachloroaurate (III) trihydrate , tetra-Chloroauric acid trihydrate

Danger
H314 H317
P280 P301+P330+P331 P302+P352 P305+P351+P338 P309+P310

CAS 16961-25-4
EINECS: 240-948-4
UN: 3260
ADR 8,III

$HAuCl_4 \cdot 3H_2O$
M.W. 393.83 g/mol
Density: 3.9 g/cm³ (20 °C)
Melting Pt: 30 °C
Storage Temperature: Ambient temperature

tetra-Chloroauric (III) acid trihydrate AnalaR NORMAPUR® analytical reagent

Assay (Au) ..... Min. 48.0 %
NO_3 (Nitrate) ..... Max. 0.02 %
Solubility in ether ..... Passes test ROSIN

Cat. No.	Pk	Pack type
1028.0001	1 g	Plastic bottle

Chlorobenzene

Phenylchloride

Danger
H226 H332 H411
P210 P243 P280 P273 P304+P340 P313

CAS 108-90-7
Index 602-033-00-1
EINECS: 203-628-5
UN: 1134
ADR 3,III
Flash Pt: 28 °C

C_6H_5Cl
M.W. 112.56 g/mol
Density: 1.11 g/cm³ (20 °C)
Boiling Pt: 130 °C (1013 hPa)
Melting Pt: -45 °C
Storage Temperature: Ambient temperature

Chlorobenzene AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	IR Spectrum	Passes test
Colouration	Max. 10 APHA	Density (20/4)	1.100 to 1.110
Evaporation residue	Max. 0.05 %	Water	Max. 0.05 %
Al (Aluminium)	Max. 2.0 ppm	Ba (Barium)	Max. 1.0 ppm
Ca (Calcium)	Max. 5.0 ppm	Cd (Cadmium)	Max. 0.5 ppm
Co (Cobalt)	Max. 0.2 ppm	Cr (Chromium)	Max. 0.2 ppm
Cu (Copper)	Max. 0.2 ppm	Fe (Iron)	Max. 2.0 ppm
K (Potassium)	Max. 1.0 ppm	Mg (Magnesium)	Max. 0.5 ppm
Mn (Manganese)	Max. 0.2 ppm	Na (Sodium)	Max. 5.0 ppm
Ni (Nickel)	Max. 0.2 ppm	Pb (Lead)	Max. 0.5 ppm
Sr (Strontium)	Max. 0.2 ppm	Zn (Zinc)	Max. 1.0 ppm

Cat. No.	Pk	Pack type
103386D	2,5 l	Glass bottle

Chlorobenzene GPR RECTAPUR®

Assay	Min. 99 %
Density (20/4)	1.100 to 1.110
Distillation range	131 to 133 °C
Evaporation residue	Max. 50 ppm

Cat. No.	Pk	Pack type
22702.298	1 l	Glass bottle
22702.323	2,5 l	Glass bottle
22702.367	5 l	Aluminium bottle
22702.460	25 l	Metal drum

1-Chlorobutane

Danger
H225
P210 P243 P280

CAS 109-69-3
Index 602-059-00-3
EINECS: 203-696-6
UN: 1127
ADR 3,II
Flash Pt: -17 °C

$CH_3(CH_2)_3Cl$
M.W. 92.57 g/mol
Density: 0.8862 g/cm³ (20 °C)
Boiling Pt: 78.4 °C (1013 hPa)
Melting Pt: -123 °C
Storage Temperature: Ambient temperature

1-Chlorobutane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.7 %
Water	Max. 0.01 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (227 nm)	Min. 50 %
Transmittance (232 nm)	Min. 80 %
Transmittance (250 nm)	Min. 98 %
Conforms to BDH 15294	Passes test

Cat. No.	Pk	Pack type
83631.320	2,5 l	Glass bottle

Chloroethane (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 75-00-3
EINECS: 200-830-5
UN: 1230
ADR 3,II

C_6H_5Cl
Storage Temperature: Ambient temperature

Chloroethane 200 µg/ml in methanol

Cat. No.	Pk	Pack type
123482M	1 ml	Glass ampoule

Chloroethylene (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 75-01-4
EINECS: 200-831-0
UN: 1230
ADR 3,II

$H_2C{=}CHCl$
Storage Temperature: Ambient temperature

NEW Chloroethylene 200 µg/ml in methanol

Cat. No.	Pk	Pack type
123462Y	1 ml	Glass ampoule

Chloroform

Trichloromethane

Warning
H351 H302 H373 H315
P201 P281 P302+P352 P309+P311

CAS 67-66-3
Index 602-006-00-4
EINECS: 200-663-8
UN: 1888
ADR 6.1,III

Restricted to industrial plants

$CHCl_3$
M.W. 119.38 g/mol
Density: 1.4832 g/cm³ (20 °C)
Boiling Pt: 61.7 °C (1013 hPa)
Melting Pt: -63 °C
Storage Temperature: Ambient temperature

Chloroform HiPerSolv CHROMANORM® for HPLC

Stabilised with 2-methyl-2-butene 0.002 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.05 %
Non-volatile residue	Max. 0.001 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (250 nm)	Min. 50 %
Transmittance (260 nm)	Min. 84 %
Transmittance (280 nm)	Min. 95 %
Transmittance (300 nm)	Min. 98 %
Conforms to BDH 15283	Passes test

Cat. No.	Pk	Pack type
83626.290	1 l	Glass bottle
83626.320	2,5 l	Glass bottle

Chloroform HiPerSolv CHROMANORM® for HPLC

Stabilised with ethanol 0.6 %

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.05 %
Non-volatile residue	Max. 0.001 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (300 nm)	Min. 50 %
Transmittance (260 nm)	Min. 84 %
Transmittance (280 nm)	Min. 95 %
Transmittance (300 nm)	Min. 98 %

Cat. No.	Pk	Pack type
83627.290	1 l	Glass bottle
83627.320	2,5 l	Glass bottle

Chloroform SPECTRONORM® for spectroscopy

Stabilised with ethanol 0.6 %

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	99.0 to 99.6 %
Density (20/4)	1.478 to 1.484
Distillation range	59.5 to 61.5 °C
Evaporation residue	Max. 5 ppm
Transmittance (250 nm)	Min. 50 %
Transmittance (260 nm)	Min. 85 %
Transmittance (270 nm)	Min. 95 %
Transmittance (280 nm)	Min. 96 %
Transmittance (from 290 nm)	Min. 98 %

Cat. No.	Pk	Pack type
22715.293	1 l	Glass bottle

Chloroform AnalaR NORMAPUR® analytical reagent

Stabilised with ethanol 0.6 %

Appearance	Clear colourless liquid	Assay (on anhydrous substance)	99.0 to 99.4 %
Insolubility in alcohol	Passes test	IR Spectrum	Passes test
Suited for determination with dithizone.	Passes test	Acidity	Max. 0.00014 meq/g
Boiling point	59.5 to 60.5 °C	Colouration	Max. 10 APHA
Density (20/4)	1.478 to 1.484	Density (20/20)	1.481 to 1.487
Formaldehyde-sulphuric colouration	Max. 60 APHA	Substances discoloured by H_2SO_4	Max. 35 APHA
Carbon tetrachloride	Max. 100 ppm	Carbonyl compounds (as CO)	Max. 50 ppm
Dichloromethane	Max. 100 ppm	Ethanol	0.6 to 1.0 %
Evaporation residue	Max. 5 ppm	Free chlorine	Max. 0.3 ppm
Ionised chlorine	Max. 0.5 ppm	Tetrachloroethylene	Max. 100 ppm
Trichloroethylene	Max. 100 ppm	Water	Max. 100 ppm
Cl (Chloride)	Max. 0.2 ppm	Al (Aluminium)	Max. 0.05 ppm
B (Boron)	Max. 0.01 ppm	Ba (Barium)	Max. 0.01 ppm
Ca (Calcium)	Max. 0.1 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm	Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.05 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.05 ppm	Conforms to BDH 10077	Passes test

Cat. No.	Pk	Pack type
22711.260	500 ml	Glass bottle
22711.244	1 l	Glass bottle SAFEBREAK
22711.290	1 l	Glass bottle
22711.324	2,5 l	Glass bottle
22711.461	25 l	Metal drum

Chloroform, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Stabilised with 2-methyl-2-butene

Assay (calculated on anhydrous)	Min. 99.5 %	Colour value	Max. 10 APHA
Acidity	Max. 0.0005 %	Residue on evaporation	Max. 0.0005 %
Water (K.F.)	Max. 0.0050 %	Dichloromethane	Max. 0.0100 %
Carbon tetrachloride	Max. 0.0100 %	Trichloroethene	Max. 0.0100 %
1,1,2,2-Tetrachlorethane	Max. 0.0100 %	Formaldehyde-sulphuric colouration	Max. 60 APHA
Substances discoloured by H_2SO_4	Max. 35 APHA	Free chlorine	Max. 0.00003 %
Cl (Chloride)	Max. 0.5 ppm	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
22709.235	250 ml	Glass bottle
22709.292	1 l	Glass bottle

Chloroform BP

Stabilised with ethanol 0.6 %

Not licenced for use as an anaesthetic in human or veterinary applications.

Appearance	Clear colourless liquid
Identification	Passes test
Distillation range	Passes test
Weight per ml	1.474 to 1.479 g
Acidity or alkalinity	Passes test
Cl (Chloride)	Passes test
Free chlorine	Passes test
Aldehydes	Passes test
Foreign chlorine compounds	Passes test
Related substances	Passes test
Ethanol	Passes test
Non-volatile matter	Max. 40 mg/l
Residual solvents	Passes test

Cat. No.	Pk	Pack type
22705.323	2,5 l	Glass bottle

Chloroform GPR RECTAPUR®

Stabilised with ethanol 0.6 %

Assay (on anhydrous substance) ..... 99.0 to 99.6 %
Density (20/4) ..... 1.478 to 1.484
Distillation range ..... 59 to 62 °C
Ethanol ..... 0.6 to 1.0 %
Evaporation residue ..... Max. 50 ppm
Free chlorine ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 100 ppm

Cat. No.	Pk	Pack type
22706.292	1 l	Glass bottle
22706.326	2,5 l	Glass bottle
22706.361	5 l	Fluorinated plastic bottle
22706.463	25 l	Metal drum
22706.554	200 l	Metal drum

Chloroform GPR RECTAPUR®

Stabilised with 2-methyl-2-butene 0.002 ppm

Assay ..... Min. 99 %
Density (20/4) ..... 1.478 to 1.484
Distillation range ..... 59 to 62 °C
2-Methyl-2-butene ..... 15 to 25 ppm
Evaporation residue ..... Max. 10 ppm
Free chlorine ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 100 ppm

Cat. No.	Pk	Pack type
22707.295	1 l	Glass bottle
22707.320	2,5 l	Glass bottle
22707.364	5 l	Fluorinated plastic bottle

Chloroform, dehydrated (max. 0.01% H_2O) GPR RECTAPUR® for synthesis

Stabilised with ethanol 0.6 %

Assay ..... 99.0 to 99.6 %
Ethanol ..... 0.6 to 1.0 %
Evaporation residue ..... Max. 50 ppm
Water ..... Max. 100 ppm

Cat. No.	Pk	Pack type
22710.321	2,5 l	Glass bottle

VWR CHEMICALS Chloroform for biotechnology

Purity >99.8%. Commonly mixed with phenol to enhance the extraction of DNA. Used to recover the aqueous phase overlaid with mineral oil in PCR procedures.

Abs.@ 245 nm 1.00
Abs.@ 255 nm 0.25
Abs.@ 260 nm 0.15
Abs.@ 270 nm 0.05
Abs.@ 290 nm 0.01
Abs.@ 400 nm 0.01
Chloride ..... < 10 ppm
Colour (APHA) ..... < 10
Lead ..... < 0.05 ppm
Moisture (KF) ..... 0.05 %
Purity ..... 99.8 %
Residue after Evaporation ..... 0.001 %
Specific Gravity ..... REPORT
Titratable Free Acid ..... < 0.5 meq/g

Cat. No.	Pk	Pack type
0757-500ML	500 ml	Glass bottle
0757-950ML	950 ml	Glass bottle

Chloroform TECHNICAL

Stabilised with ethanol 0.6 %

Assay ..... Min. 98 %
Ethanol ..... 0.6 to 1.0 %

Cat. No.	Pk	Pack type
22720.360	5 l	Fluorinated plastic bottle
22720.462	25 l	Metal drum

Chloroform-[D1]

Trichloromethane-D1 , Chloroform-D

Warning
H351 H302 H373 H315
P201 P281 P302+P352 P309+P311

CAS 865-49-6
EINECS: 212-742-4
UN: 1888
ADR 6.1,III

$CDCl_3$
M.W. 120.37 g/mol
Density: 1.5 g/cm³ (20 °C)
Boiling Pt: 60.8 °C (1013 hPa)
Melting Pt: -64.1 °C
Storage Temperature: 2 - 8°C

Chloroform-[D1] 99.80 for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water ..... Max. 0.01 %

Cat. No.	Pk	Pack type
87153.0010	10 ml	Glass bottle
87153.0025	25 ml	Glass bottle
87153.0100	100 ml	Glass bottle
87153.0500	500 ml	Glass bottle
87153.0006	1 Pack	Glass ampoule

1 Pack = 10 x 0.6 ml

Chloroform-[D1] 0.03% TMS (99,8% D) for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water ..... Max. 0.01 %

Cat. No.	Pk	Pack type
84111.0025	25 ml	Glass bottle
84111.0100	100 ml	Glass bottle
84111.0500	500 ml	Glass bottle

Chloroform : iso-Amyl alcohol (24:1 v:v)

Warning
H351 H302 H373 H315
P201 P281 P302+P352 P309+P311
UN: 1888
ADR 6.1,III

Restricted to industrial plants
Storage Temperature: Ambient temperature

Chloroform : iso-Amyl alcohol (24:1 v:v) for biotechnology

A premixed solution of 24 parts chloroform to 1 part isoamyl alcohol. Combined with phenol (1:1) for nucleic acid purification procedures.

Specific Gravity (20 °C) ..... 1.446 - 1.463 g/ml
Water (KF) ..... 0.1 %

Cat. No.	Pk	Pack type
X205-450ML	450 ml	Glass bottle
X205-950ML	950 ml	Glass bottle

Chlorotoluron (3-(3-Chloro-p-tolyl)-1,1-dimethylurea)

3-(3-Chloro-p-tolyl)-1,1-dimethylurea

Warning
H351 H361d H410
P281 P273 P308+P313

CAS 15545-48-9
Index 616-105-00-5
EINECS: 239-592-2
UN: 3077
ADR 9,III

$(C_6H_3ClCH_3)NC(S)NH_2$
M.W. 212.68 g/mol
Density: 1.4 g/cm³ (20 °C)
Melting Pt: 159 to 160 °C
Storage Temperature: Ambient temperature

Chlorotoluron (3-(3-Chloro-p-tolyl)-1,1-dimethylurea), extra pure

Cat. No.	Pk	Pack type
123702F	10 mg	Glass ampoule

3-(3-Chloro-p-tolyl)-1,1-dimethylurea

See Chlorotoluron (3-(3-Chloro-p-tolyl)-1,1-dimethylurea)..... p.109

Chlorpyrifos

O,O-Diethyl O-3,5,6-trichloro-2-pyridyl thiophosphate , O,O-Diethyl O-3,5,6-trichloro-2-pyridyl phosphorothionate , Dursban®

Danger
H301 H410
P273 P301+P310

CAS 2921-88-2
Index 015-084-00-4
EINECS: 220-864-4
UN: 2811
ADR 6.1,III

$C_9H_{11}Cl_3NO_3PS$
M.W. 350.59 g/mol
Density: 1.4 g/cm³ (20 °C)
Boiling Pt: 276 °C (1013 hPa)
Melting Pt: 41 to 42 °C

Chlorpyrifos, extra pure

Cat. No.	Pk	Pack type
123682S	10 mg	Glass ampoule

Chlorpyrifos (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 2921-88-2
EINECS: 220-864-4
UN: 1230
ADR 3,II

$C_9H_{11}Cl_3NO_3PS$
Storage Temperature: Ambient temperature

Chlorpyrifos 100 µg/ml in methanol

Cat. No.	Pk	Pack type
123692U	1 ml	Glass ampoule

(3-((3-Cholamidopropyl) dimethylammonio)-2-hydroxy-1-propanesulphonate)

(3-((3-Cholamidopropyl)dimethylammonio)-2-hydroxypropanesulphonate) , CHAPSO

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 82473-24-3

$C_{32}H_{58}N_2O_8S$
M.W. 630.89 g/mol
Melting Pt: 184 to 186 °C
Storage Temperature: 2 - 8°C

(3-((3-Cholamidopropyl)dimethylammonio)-2-hydroxy-1-propanesulphonate)

CHAPSO. Zwitterionic detergent.

Cat. No.	Pk	Pack type
M165-10G	10 g	Plastic bottle

3-[(3-Cholamidopropyl)dimethylammonio]-1-propane sulphate

See CHAPS (3-[(3-Cholamidopropyl)dimethylammonio]-1-propane sulphate).... p.103

(3-((3-Cholamidopropyl)dimethylammonio) propanesulphonate)

See CHAPS (3-[(3-Cholamidopropyl)dimethylammonio]-1-propane sulphate).... p.103

Cholesterol

CAS 57-88-5
EINECS: 200-353-2

$C_{27}H_{46}O$
M.W. 386.66 g/mol
Density: 1.07 g/cm³ (20 °C)
Boiling Pt: 360 °C (1013 hPa)
Melting Pt: 147 to 150 °C
Storage Temperature: -20°C

Cholesterol GPR RECTAPUR®

Assay (Total sterols) ..... Min. 99 %
Melting point ..... 144 to 148 °C
Spec. optical rotation (10 %;chloroform) ..... -41 to -37 °
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.1 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
22749.233	250 g	Plastic bottle for solids

Cholesterol, ultrapure

Identification ..... PASS
Loss on Drying ..... 0.3 %
Melting Point ..... 146 - 150 °C
Residue on Ignition ..... 0.1 %
Solubility in Alcohol ..... PASS
Specific Rotation ..... -38 to -34 °

Cat. No.	Pk	Pack type
0433-250G	250 g	Plastic bottle for solids
0433-1KG	1 kg	Plastic bottle for solids

Chromic anhydride

See Chromium (VI) oxide p.112

Chromic oxide

See Chromium (III) oxide p.111

Chromic-sulphuric acid mixture (0.8% chromium (VI) oxide in sulphuric acid 95%)

Danger
H350 H340 H361f H314 H290 H412
P201 P280 P273 P301+P330+P331 P304+P340
P309+P311

CAS 1333-82-0
EINECS: 215-607-8
UN: 3264
ADR 8,II

CrO_3
M.W. 99.99 g/mol

Chromic-sulphuric acid mixture (0.8% chromium (VI) oxide in sulphuric acid 95%) TECHNICAL

Saturated solution of hexavalent chromium oxide in H_2SO_4 95 %
Identification ..... Passes test

Cat. No.	Pk	Pack type
25333.247	1 l	Glass bottle SAFEBREAK
25333.327	2,5 l	Glass bottle SAFEBREAK

Chromium (reagents for the analysis of)

Chromotropic acid disodium salt dihydrate analytical reagent p.112
1,5-Diphenylcarbazide analytical reagent p.154

Chromium standard solution, 10,000 mg/l Cr in 10% hydrochloric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-47-3
EINECS: 231-157-5
UN: 1789
ADR 8,II

Restricted to professional users.

Cr
M.W. 52 g/mol
Storage Temperature: Ambient temperature

Chromium standard solution, 10,000 mg/l Cr in 10% hydrochloric acid ($(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP

$(NH_4)_2Cr_2O_7$ in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455252S	100 ml	Plastic bottle
455254U	500 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium standard solution, 10,000 mg/l Cr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-47-3
EINECS: 231-157-5
UN: 3264
ADR 8,III

Restricted to professional users.

Cr
M.W. 52 g/mol
Density: 1.046 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Chromium standard solution, 10,000 mg/l Cr in dil. nitric acid ($(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP

$(NH_4)_2Cr_2O_7$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455232X	100 ml	Plastic bottle
455234Q	500 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium standard solution, 1,000 mg/l Cr in 10% hydrochloric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-47-3
EINECS: 231-157-5
UN: 1789
ADR 8,II

Restricted to professional users.

Cr
M.W. 52 g/mol
Storage Temperature: Ambient temperature

Chromium standard solution, 1,000 mg/l Cr in 10% hydrochloric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP

$(NH_4)_2Cr_2O_7$ in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455242Q	100 ml	Plastic bottle
455244S	500 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-47-3
EINECS: 231-157-5
UN: 3264
ADR 8,III

Restricted to professional users.

Cr
M.W. 52 g/mol
Storage Temperature: Ambient temperature

Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid (from Cr) ARISTAR® standard for ICP-MS

(Cr in 2 % HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456702E	100 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP

$(NH_4)_2Cr_2O_7$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455222M	100 ml	Plastic bottle
455224X	500 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86671.180	100 ml	Plastic bottle
86671.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Chromium (III) chloride hexahydrate

Chromic chloride hexahydrate , Chromium trichloride hexahydrate

Warning
H302
P301+P312

CAS 10060-12-5
EINECS: 233-038-3
UN: 3260
ADR 8,III

$CrCl_3 \cdot 6H_2O$
M.W. 266.45 g/mol
Density: 1.76 g/cm³ (20 °C)
Melting Pt: 85 °C
Storage Temperature: Ambient temperature

NEW Chromium (III) chloride hexahydrate GPR RECTAPUR®

Assay ..... 98 to 101 %
Insolubility in water ..... Max. 100 ppm
Substances not precipitated by NH_4OH ..... Max. 0.2 %
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
84839.260	500 g	Plastic bottle for solids

Chromium (III) oxide

Chromic oxide

CAS 1308-38-9
EINECS: 215-160-9

Cr_2O_3
M.W. 151.99 g/mol
Density: 5.22 g/cm³ (25 °C)
Boiling Pt: 4000 °C (1013 hPa)
Melting Pt: 2435 °C
Storage Temperature: Ambient temperature

Chromium (III) oxide analytical reagent

Assay ..... Min. 98.5 %
Loss on ignition (950°C) ..... Max. 1 %
Solubility in water ..... Max. 0.3 %
Al (Aluminium) ..... Max. 50 ppm
Ca (Calcium) ..... Max. 0.05 %
Cu (Copper) ..... Max. 20 ppm
Fe (Iron) ..... Max. 0.02 %
K (Potassium) ..... Max. 0.03 %
Mg (Magnesium) ..... Max. 200 ppm
Na (Sodium) ..... Max. 0.3 %
Pb (Lead) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
22799.235	250 g	Plastic bottle for solids

Chromium (III) oxide TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
22796.292	1 kg	Plastic bottle for solids

Chromium (VI) oxide

Chromic anhydride , Chromium trioxide

Danger
H271 H350 H340 H361f H330 H301+H311 H372
H314 H335 H334 H317 H410
P201 P210 P281 P284 P273 P301+P330+P331
P302+P352 P304+P340 P309+P310

CAS 1333-82-0
Index 024-001-00-0
EINECS: 215-607-8
UN: 1463
ADR 5.1,II

Restricted to professional users.

CrO_3
M.W. 99.99 g/mol
Density: 2.7 g/cm³ (20 °C)
Melting Pt: 195 °C
Storage Temperature: Ambient temperature

Chromium (VI) oxide AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Substances precipitated by NH_4OH	Max. 0.02 %
Total N (Nitrogen)	Max. 50 ppm	Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm	Fe (Iron)	Max. 100 ppm
K (Potassium)	Max. 50 ppm	Na (Sodium)	Max. 0.2 %

Cat. No.	Pk	Pack type
20268.237	250 g	Plastic bottle for solids
20268.294	1 kg	Plastic bottle for solids

Chromium (VI) oxide GPR RECTAPUR®

Assay	Min. 99 %
Insolubility in water	Max. 0.2 %
SO_4 (Sulphate)	Max. 0.05 %

Cat. No.	Pk	Pack type
20265.261	500 g	Glass bottle for solids
20265.294	1 kg	Glass bottle for solids

Chromium (III) potassium sulphate dodecahydrate

Chromium (III) potassium bis(sulphate) dodecahydrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7788-99-0
EINECS: 233-401-6

$CrK(SO_4)_2 \cdot 12H_2O$
M.W. 499.41 g/mol
Density: 1.83 g/cm³ (20 °C)
Melting Pt: 89 °C

Chromium (III) potassium sulphate dodecahydrate GPR RECTAPUR®

Assay	Min. 97 %
Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 200 ppm
Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 200 ppm
Pb (Lead)	Max. 50 ppm
Zn (Zinc)	Max. 10 ppm

Cat. No.	Pk	Pack type
21095.293	1 kg	Plastic bottle for solids

Chromium (III) potassium bis(sulphate) dodecahydrate

See Chromium (III) potassium sulphate dodecahydrate p.112

Chromocult coloform agar

See Microbiology

Chromotropic acid disodium salt dihydrate

4,5-Dihydroxy-2,7-naphthalenedisulphonic acid disodium salt dihydrate , 4,5-Dihydroxynaphthalene-2,7-disulphonic acid disodium salt dihydrate , Disodium 4,5-dihydroxynaphthalene-2,7-disulphonate dihydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 5808-22-0
EINECS: 204-972-9

$(HO)_2C_{10}H_4(SO_3Na)_2 \cdot 2H_2O$
M.W. 400.3 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Chromotropic acid disodium salt dihydrate analytical reagent

Assay	Min. 98.0 %
Suited for formaldehyde reagent	Passes test
Suited for titanium reagent	Passes test
Water	Max. 10 %

Cat. No.	Pk	Pack type
20261.132	25 g	Plastic bottle for solids

Chrysene

1,2-Benzophenanthrene

Danger
H350 H341 H410
P201 P281 P273 P308+P313

CAS 218-01-9
Index 601-048-00-0
EINECS: 205-923-4
UN: 2811
ADR 6.1,III

$C_{18}H_{12}$
M.W. 228.29 g/mol
Density: 1.274 g/cm³ (20 °C)
Boiling Pt: 448 °C (1013 hPa)
Melting Pt: 250 to 252 °C

Chrysene

Cat. No.	Pk	Pack type
123002H	100 mg	Glass ampoule

Chymostatin

CAS 9076-44-2
Storage Temperature: -20°C

VWR CHEMICALS Chymostatin, ultrapure

A reversible serine protease inhibitor of α, β, γ, Δ-chymotrypsin. Also inhibits papain and many other cysteine proteases.

Loss on Drying	5 %
Performance Test	PASS

Cat. No.	Pk	Pack type
J584-5MG	5 mg	Glass bottle

α-Chymotrypsin

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 9004-07-3
Index 647-011-00-2
EINECS: 232-671-2
Storage Temperature: -20°C

α-Chymotrypsin, high purity

Chymotrypsin Activity (Dry Basis)	1000 U/mg
Loss on Drying	5.0 %
Residue after Ignition	2.5 %
Solubility (Water, 10,000 U/ml)	PASS
Trypsin	1.0 %

Cat. No.	Pk	Pack type
0164-1G	1 g	Glass bottle
0164-5G	5 g	Glass bottle

α-Chymotrypsin, proteomics grade

Chymotrypsin Activity (Dry Basis)	1000 U/mg
Loss on Drying	5.0 %
Residue after Ignition	2.5 %
Solubility (Water, 10,000 U/ml)	PASS
Trypsin	1.0 %

Cat. No.	Pk	Pack type
M102-1G	1 g	Glass bottle

Citric acid

Hydroxytricarballylic acid

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 77-92-9
EINECS: 201-069-1
$HOC(COOH)(CH_2COOH)_2$
M.W. 192.13 g/mol
Density: 1.665 g/cm³ (20 °C)
Boiling Pt: 310 °C (1013 hPa)
Melting Pt: 149 to 151 °C
Storage Temperature: Ambient temperature

NEW Citric acid, anhydrous, powder AnalaR NORMAPUR®

Assay	99.8 to 100.2 %	Ignition residue (SO_4)	Passes test USP
Heavy metals (as Pb)	Max. 1 ppm	Water	Max. 0.2 %
C_2O_4 (as $C_2H_2O_4$)	Max. 10 ppm	Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 30 ppm	Al (Aluminium)	Max. 0.2 ppm
As (Arsenic)	Max. 1 ppm	Ba (Barium)	Max. 1 ppm
Ca (Calcium)	Max. 20 ppm	Cu (Copper)	Max. 1 ppm
Fe (Iron)	Max. 1 ppm	Hg (Mercury)	Max. 1 ppm
Mg (Magnesium)	Max. 1 ppm	Pb (Lead)	Max. 0.5 ppm
Zn (Zinc)	Max. 1 ppm		

Cat. No.	Pk	Pack type
84841.290	1 kg	Plastic bottle for solids

Citric acid, anhydrous, powder Ph. Eur.

Assay (calculated on anhydrous)	99.5 to 100.5 %
Appearance	White crystalline powder
Identification B	Passes test
Appearance of solution	Passes test
Readily carbonisable substances	Passes test
Oxalic acid	Max. 360 ppm
SO_4 (Sulphate)	Max. 150 ppm
Heavy metals (as Pb)	Max. 10 ppm
Water	Max. 1.0 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20282.293	1 kg	Plastic bottle for solids
20282.362	5 kg	Bucket (Plastic)
20282.464	25 kg	Bucket (Plastic)

Not suitable for parenteral use

NEW Citric acid, anhydrous, powder GPR RECTAPUR®

Assay	Min. 98.5 %
Heavy metals (as Pb)	Max. 10 ppm
Water	Max. 0.2 %
Pb (Lead)	Max. 5.0 ppm

Cat. No.	Pk	Pack type
84842.290	1 kg	Plastic bottle for solids
84842.360	5 kg	Plastic bottle for solids

Citric acid monohydrate

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 5949-29-1
EINECS: 201-069-1
Flash Pt: 173.9 °C (closed cup)
$HOC(COOH)(CH_2COOH)_2 \cdot H2O$
M.W. 210.14 g/mol
Density: 1.552 g/cm³ (20 °C)
Melting Pt: 135 to 152 °C
Storage Temperature: Ambient temperature

Citric acid monohydrate AnalaR NORMAPUR® analytical reagent

Assay	99.7 to 100.5 %	Readily carbonisable substances	Passes test
Heavy metals (as Pb)	Max. 10 ppm	Ignition residue (SO_4)	Max. 0.02 %
Insolubility in water	Max. 50 ppm	Tartaric acid	Max. 0.2 %
Water	7.5 to 9.0 %	C_2O_4 (as $C_2H_2O_4$)	Max. 0.04 %
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm	As (Arsenic)	Max. 0.1 ppm
Ca (Calcium)	Max. 20 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 3 ppm	Mg (Magnesium)	Max. 5 ppm
Ni (Nickel)	Max. 1 ppm	Pb (Lead)	Max. 2 ppm

Cat. No.	Pk	Pack type
20276.235	250 g	Plastic bottle for solids
20276.292	1 kg	Plastic bottle for solids
20276.361	5 kg	Plastic bottle for solids
20276.460	25 kg	Cardboard carton

Citric acid monohydrate, powder Ph. Eur.

Assay (calculated on anhydrous) ..... 99.5 to 100.5 %
Appearance ..... White crystalline powder
Identification B ..... Passes test
Appearance of solution ..... Passes test
Readily carbonisable substances ..... Passes test
Oxalic acid (calculated on anhydrous) ..... Max. 360 ppm
SO_4 (Sulphate) ..... Max. 150 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... 7.5 to 9.0 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
85514.290	1 kg	Plastic bottle for solids
85514.360	5 kg	Plastic bottle for solids
85514.460	25 kg	Bucket (Plastic)

Not suitable for parenteral use

Citric acid monohydrate, crystallized GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Cl (Chloride) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
20273.292	1 kg	Plastic bottle for solids
20273.361	5 kg	Bucket (Plastic)
20273.460	25 kg	Bucket (Plastic)

Citric acid monohydrate, powder GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Cl (Chloride) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
20275.298	1 kg	Plastic bottle for solids
20275.367	5 kg	Plastic bottle for solids

Citric acid monohydrate Molecular biology grade

Appearance ..... White crystalline powder
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Assay ..... Min. 99.5 %
Pb (Lead) ..... Max. 0.001 %
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.05
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.05

Cat. No.	Pk	Pack type
444455S	1 kg	Plastic bottle

Citric acid monohydrate, crystallized TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20278.298	1 kg	Plastic bottle for solids
20278.367	5 kg	Bucket (Plastic)
20278.460	25 kg	Bucket (Plastic)

NEW Citric acid monohydrate for decalcifying

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
84559.290	1 kg	Plastic bottle for solids

Citric acid di-ammonium salt

See di-Ammonium hydrogen citrate p.35

Citric acid tri-ammonium salt

See tri-Ammonium citrate p.32

Citric acid tri-potassium salt monohydrate

See tri-Potassium citrate monohydrate p.373

Citric acid tri-sodium salt dihydrate

See tri-Sodium citrate dihydrate p.436

Clarifying reagent of biological media

Danger
H225 H302 H318 H336
EUH066
P210 P243 P280 P304+P340 P305+P351+P338
P309+P310
UN: 1993
ADR 3,II
Flash Pt: 20 °C

Clarifying reagent of biological media

This product has a specific odour, it may be colourless to light yellow. The yellowing does not affect adversely the clarifying efficiency of the reagent.

Identification ..... Passes test

Cat. No.	Pk	Pack type
27357.232	250 ml	Glass bottle

Clay

See Bole white (Kaolin) p.70

Clean-Lab (Isoparaffine)

Danger
H226 H304 H413
EUH066
P210 P243 P280 P273 P301+P310 P331
UN: 3295
ADR 3,III
Storage Temperature: Ambient temperature

NEW Clean-Lab Q Path® (Alternative solvent)

Solvent replacement for cleaning instruments and equipments in contact with wax

IVD

Cat. No.	Pk	Pack type
10047400.	6 x 100 ml	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

CLED Agar

See Microbiology

Dithiothreitol

See Dithiothreitol (DTT, Cleland's reagent) p.155

Cobalt standard solution, 10,000 mg/l Co in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-48-4
EINECS: 231-158-0
UN: 3264
ADR 8,III

Co
M.W. 58.93 g/mol
Density: 1.037 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Cobalt standard solution, 10,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP-MS

Co in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457062W	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cobalt standard solution, 10,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP

Co in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455272W	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-48-4
EINECS: 231-158-0
UN: 3264
ADR 8,III

Co
M.W. 58.93 g/mol
Density: 1.014 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP

Co in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455262U	100 ml	Plastic bottle

Supplied with certificate of analysis.

Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86670.180	100 ml	Plastic bottle
86670.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Cobalt diacetate tetrahydrate

See Cobalt (II) acetate tetrahydrate p.115

Cobalt dichloride hexahydrate

See Cobalt (II) chloride hexahydrate p.115

Cobalt dinitrate hexahydrate

See Cobalt (II) nitrate hexahydrate p.116

Cobalt (II) acetate tetrahydrate

Acetic acid cobalt (II) salt tetrahydrate , Cobalt diacetate tetrahydrate , Cobaltous acetate tetrahydrate

Danger
H350i H341 H360F H334 H317 H410
P201 P281 P285 P273 P302+P352 P304+P341
P309+P311

CAS 6147-53-1
Index 027-006-00-6
EINECS: 200-755-8
UN: 3077
ADR 9,III

$(H_3CCOO)_2Co{\cdot}4H_2O$
M.W. 285.11 g/mol
Density: 1.7 g/cm³ (20 °C)
Melting Pt: 140 °C
Storage Temperature: Ambient temperature

Cobalt (II) acetate tetrahydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
22878.262	500 g	Plastic bottle for solids

Cobalt (II) chloride hexahydrate

Cobaltous chloride hexahydrate , Cobalt dichloride hexahydrate

Danger
H350i H341 H360F H302 H334 H317 H410
P201 P281 P285 P273 P302+P352 P304+P341
P309+P311

CAS 7791-13-1
Index 027-004-00-5
EINECS: 231-589-4
UN: 3077
ADR 9,III

Restricted to professional users. Contains $CoCl_2$.

$CoCl_2.6H_2O$
M.W. 237.93 g/mol
Density: 1.92 g/cm³ (20 °C)
Boiling Pt: 110 °C (1013 hPa)
Melting Pt: 56 °C
Storage Temperature: Ambient temperature

Cobalt (II) chloride hexahydrate AnalaR NORMAPUR® analytical reagent nickel free

Assay	98.0 to 102.0 %	Insolubility in water	Max. 0.02 %
NO_3 (Nitrate)	Max. 100 ppm	SO_4 (Sulphate)	Max. 100 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 0.015 %
Mn (Manganese)	Max. 10 ppm	Ni (Nickel)	Max. 50 ppm
Pb (Lead)	Max. 10 ppm	Zn (Zinc)	Max. 20 ppm

Cat. No.	Pk	Pack type
22896.184	100 g	Plastic bottle for solids

Cobalt (II) chloride hexahydrate TECHNICAL

Assay..... Min. 97 %

Cat. No.	Pk	Pack type
22892.261	500 g	Plastic bottle for solids
22892.294	1 kg	Plastic bottle for solids
22892.363	5 kg	Bucket (Plastic)
22892.465	25 kg	Bucket (Plastic)

Cobalt (II) chloride paper

Cobalt (II) chloride paper, in strips for detection of water vapour 2,5 inches 0,50 inches

Each book contains 20 leaves measuring 2.5 inches x 0.5 inches - (Cobaltous chloride)

Cat. No.	Pk	Pack type
310112H	10	Plastic bag

Cobalt (II) nitrate hexahydrate

Cobalt dinitrate hexahydrate , Cobaltous nitrate hexahydrate

Danger
H350i H341 H360F H334 H317 H410
P201 P281 P285 P273 P302+P352 P304+P341
P309+P311

CAS 10026-22-9
Index 027-009-00-2
EINECS: 233-402-1
UN: 1477
ADR 5.1,III

$Co(NO_3)_2 \cdot 6H_2O$
M.W. 291.04 g/mol
Density: 1.88 g/cm³ (20 °C)
Melting Pt: 57 °C
Storage Temperature: Ambient temperature

Cobalt (II) nitrate hexahydrate GPR RECTAPUR®

Assay..... Min. 98 %
Cl (Chloride)..... Max. 50 ppm
SO_4 (Sulphate)..... Max. 0.02 %
Cu (Copper)..... Max. 100 ppm
Fe (Iron)..... Max. 100 ppm
Ni (Nickel)..... Max. 0.6 %
Pb (Lead)..... Max. 100 ppm

Cat. No.	Pk	Pack type
22912.237	250 g	Plastic bottle for solids

Cobalt (II) nitrate hexahydrate TECHNICAL

Assay..... Min. 96 %

Cat. No.	Pk	Pack type
22910.264	500 g	Plastic bottle for solids
22910.468	25 kg	Bucket (Plastic)

Cobalt (II) sulphate heptahydrate

Cobalt sulphate heptahydrate , Cobaltous sulphate heptahydrate

Danger
H350i H341 H360F H302 H334 H317 H410
P201 P281 P285 P273 P302+P352 P304+P341
P309+P311

CAS 10026-24-1
Index 027-005-00-0
EINECS: 233-334-2
UN: 3077
ADR 9,III

Restricted to professional users.

$CoSO_4 \cdot 7H_2O$
M.W. 281.1 g/mol
Density: 2.03 g/cm³ (20 °C)
Melting Pt: 735 °C

Cobalt (II) sulphate heptahydrate AnalaR NORMAPUR® analytical reagent nickel free

Assay..... Min. 99 %
Total N (Nitrogen)..... Max. 20 ppm
Cu (Copper)..... Max. 10 ppm
Na (Sodium)..... Max. 100 ppm
Pb (Lead)..... Max. 10 ppm
Cl (Chloride)..... Max. 10 ppm
Ca (Calcium)..... Max. 50 ppm
Fe (Iron)..... Max. 5 ppm
Ni (Nickel)..... Max. 50 ppm
Zn (Zinc)..... Max. 50 ppm

Cat. No.	Pk	Pack type
22929.188	100 g	Plastic bottle for solids

Cobalt (II) sulphate heptahydrate TECHNICAL

Assay..... Min. 97 %

Cat. No.	Pk	Pack type
22926.268	500 g	Plastic bottle for solids
22926.361	5 kg	Bucket (Plastic)

Cobaltous acetate tetrahydrate

See Cobalt (II) acetate tetrahydrate..... p.115

Cobaltous chloride hexahydrate

See Cobalt (II) chloride hexahydrate..... p.115

Cobaltous nitrate hexahydrate

See Cobalt (II) nitrate hexahydrate p.116

Cobaltous sulphate heptahydrate

See Cobalt (II) sulphate heptahydrate..... p.116

Colchicine

(S)-(-)-Colchicine , 7α-H-Colchicine

Danger
H340 H300
P281 P309+P310

CAS 64-86-8
Index 614-005-00-6
EINECS: 200-598-5
UN: 1544
ADR 6.1,I

$C_{22}H_{25}NO_6$
M.W. 399.44 g/mol
Density: 1.32 g/cm³ (20 °C)
Melting Pt: 154 to 156 °C
Storage Temperature: Ambient temperature

Colchicine

Cat. No.	Pk	Pack type
278052W	1 g	Glass bottle
27805FM	5 g	Glass bottle

(S)-(-)-Colchicine

See Colchicine p.116

7α-H-Colchicine

See Colchicine p.116

Colophony

Rosin , Gum rosin

Warning
H317
P280 P302+P352

CAS 8050-09-7
Index 650-015-00-7
EINECS: 232-475-7
Flash Pt: 188 °C
Density: 1.1 g/cm^3 (20 °C)
Melting Pt: 75 to 81 °C

Colophony, lumps TECHNICAL

IR Spectrum ..... Passes test
Acid value ..... 165 to 169
Melting point ..... 70 to 83 °C
Saponification value ..... 165 to 190

Cat. No.	Pk	Pack type
23017.366	5 kg	Bucket (Plastic)

Colour reference standards Ph. Eur.

See p.466

Colour standards solutions

Ready to use solutions that are prepared gravimetrically on a weight/weight basis.

- Use either as calibration and/or quality control standards
- Designed specifically for use in ASTM analytical methods and produced in accordance with ASTM D1500, D6045, D1209
- Consistency of product - independent, traceable, certified
- Presented in high quality, tamper evident bottles

Description	Page	Pk	Cat. No.
Colour standards solutions ASTM			
ASTM Colour Standard Sample A1	52	100 ml	84834.180
ASTM Colour Standard Sample A1	52	500 ml	84834.260
ASTM Colour Standard Sample A3	52	100 ml	84796.180
ASTM Colour Standard Sample A3	52	500 ml	84796.260
ASTM Colour Standard Sample A5	52	100 ml	84797.180
ASTM Colour Standard Sample A5	52	500 ml	84797.260
ASTM Colour Standard Sample A7	52	100 ml	84798.180
ASTM Colour Standard Sample A7	52	500 ml	84798.260
Gardner colour standards			
Gardner Colour Standard 2	195	500 ml	84815.260
Gardner Colour Standard 4	195	500 ml	84816.260
Gardner Colour Standard 6	195	500 ml	84817.260
Gardner Colour Standard 8	195	500 ml	84818.260
Gardner Colour Standard 10	195	500 ml	84819.260
Gardner Colour Standard 12	195	500 ml	84820.260
Gardner Colour Standard 14	195	500 ml	84821.260
Gardner Colour Standard 16	195	500 ml	84822.260
Hazen colour standards			
Hazen Colour Standard 0 Hazen	210	1 l	84806.290
Hazen Colour Standard 10 Hazen	210	1 l	84807.290
Hazen Colour Standard 25 Hazen	210	1 l	84808.290
Hazen Colour Standard 40 Hazen	210	1 l	84809.290
Hazen Colour Standard 50 Hazen	210	1 l	84810.290
Hazen Colour Standard 80 Hazen	210	1 l	84811.290
Hazen Colour Standard 100 Hazen	210	1 l	84812.290
Hazen Colour Standard 250 Hazen	210	1 l	84813.290
Hazen Colour Standard 500 Hazen	210	1 l	84814.290
Saybolt colour standards			
Saybolt Colour Standard -15	415	100 ml	84805.180
Saybolt Colour Standard -15	415	500 ml	84805.260
Saybolt Colour Standard 0	415	100 ml	84804.180
Saybolt Colour Standard 0	415	500 ml	84804.260
Saybolt Colour Standard +12	415	100 ml	84803.180
Saybolt Colour Standard +12	415	500 ml	84803.260
Saybolt Colour Standard +15	415	100 ml	84802.180
Saybolt Colour Standard +15	415	500 ml	84802.260
Saybolt Colour Standard +19	415	100 ml	84801.180
Saybolt Colour Standard +19	415	500 ml	84801.260
Saybolt Colour Standard +25	415	100 ml	84800.180
Saybolt Colour Standard +25	415	500 ml	84800.260
Saybolt Colour Standard +30	415	100 ml	84799.180
Saybolt Colour Standard +30	415	500 ml	84799.260

Columbia Agar

See Microbiology

Complexometry (reagents for)

Conductivity standard (10 - < 100 µS/cm; KCl)

CAS 7447-40-7
EINECS: 231-211-8

KCl
M.W. 74.55 g/mol
Density: ~ 1 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

NEW Conductivity standard 10 µS/cm (25°C; 0.000027 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 9.90 to 10.10 µS/cm

Cat. No.	Pk	Pack type
84137.260	500 ml	Plastic bottle

NEW Conductivity standard 20 µS/cm (25°C; 0.000308 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 19.80 to 20.20 µS/cm

Cat. No.	Pk	Pack type
84140.260	500 ml	Plastic bottle

NEW Conductivity standard 50 µS/cm (25°C; 0.000335 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 49.5 to 50.5 µS/cm

Cat. No.	Pk	Pack type
84143.260	500 ml	Plastic bottle

NEW Conductivity standard 84 µS/cm (25°C; KCl) for conductivity measurement

Conductivity (25 °C) ..... 83.16 to 84.84 µS/cm

Cat. No.	Pk	Pack type
84131.180	100 ml	Plastic bottle
84131.260	500 ml	Plastic bottle

Conductivity standard (100 - < 1,000 µS/cm; KCl)

CAS 7447-40-7
EINECS: 231-211-8

KCl
M.W. 74.55 g/mol
Storage Temperature: Ambient temperature

NEW Conductivity standard 100 µS/cm (25°C; 0.00068 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 99.0 to 101.0 µS/cm

Cat. No.	Pk	Pack type
84139.260	500 ml	Plastic bottle

NEW Conductivity standard 147 µS/cm (25°C; 0.001 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 145.5 to 148.5 µS/cm

Cat. No.	Pk	Pack type
84132.180	100 ml	Plastic bottle
84132.260	500 ml	Plastic bottle

NEW Conductivity standard 200 µS/cm (25°C; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025
Conductivity (25 °C) ..... 198.0 to 202.0 µS/cm

Cat. No.	Pk	Pack type
84145.260	500 ml	Plastic bottle

NEW Conductivity standard 500 µS/cm (25°C; 0.00345 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 495.0 to 505.0 µS/cm

Cat. No.	Pk	Pack type
84138.260	500 ml	Plastic bottle

Conductivity standard (1,000 - < 10,000 µS/cm; KCl)

CAS 7447-40-7

EINECS: 231-211-8

KCl

M.W. 74.55 g/mol

Storage Temperature: Ambient temperature

NEW Conductivity standard 1,000 µS/cm (25°C; 0.007 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 990.0 to 1010.0 µS/cm

Cat. No.	Pk	Pack type
84141.260	500 ml	Plastic bottle

Conductivity standard 1,413 µS/cm (25°C; 0.01 mol/l; KCl) calibration solution for conductibility

Titer ..... 0.00995 to 0.01005 mol/l

Conductivity (25°C) ..... 1.39 to 1.43 mS/cm

Cat. No.	Pk	Pack type
83607.180	100 ml	Plastic bottle
83607.260	500 ml	Plastic bottle
83607.290	1 l	Plastic bottle

NEW Conductivity standard 1,413 µS/cm (25°C; 0.01 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 1399 to 1427 µS/cm

Cat. No.	Pk	Pack type
84135.180	100 ml	Plastic bottle
84135.260	500 ml	Plastic bottle
84135.290	1 l	Plastic bottle

Conductivity standard 5,000 µS/cm (25°C; 0.0375 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Cat. No.	Pk	Pack type
85645.260	500 ml	Plastic bottle

Conductivity standard (10,000 - < 100,000 µS/cm; KCl)

CAS 7447-40-7

EINECS: 231-211-8

KCl

M.W. 74.55 g/mol

Density: 1.003 g/cm^3 (20 °C)

Storage Temperature: Ambient temperature

NEW Conductivity standard 10,000 µS/cm (25°C; 0.0765 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 9900 to 10100 µS/cm

Cat. No.	Pk	Pack type
84146.260	500 ml	Plastic bottle

Conductivity standard 12,880 µS/cm (25°C; 0.1 mol/l; KCl) calibration solution for conductibility

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25°C) ..... 12.60 to 13.00 mS/cm

Cat. No.	Pk	Pack type
83608.260	500 ml	Plastic bottle
83608.290	1 l	Plastic bottle

NEW Conductivity standard 12,880 µS/cm (25°C; 0.1 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 12751 to 13009 µS/cm

Cat. No.	Pk	Pack type
84136.180	100 ml	Plastic bottle
84136.260	500 ml	Plastic bottle
84136.290	1 l	Plastic bottle

NEW Conductivity standard 50,000 µS/cm (25°C; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 49500 to 50500 µS/cm

Cat. No.	Pk	Pack type
84142.260	500 ml	Plastic bottle

Conductivity standard (100,000 - < 1,000,000 µS/cm; KCl)

CAS 7447-40-7

EINECS: 231-211-8

KCl

M.W. 74.55 g/mol

Storage Temperature: Ambient temperature

NEW Conductivity standard 100,000 µS/cm (25°C; 0.85 mol/l; KCl) for conductivity measurement

Directly traceable to NIST, tested and certified to ISO17025

Conductivity (25 °C) ..... 99000 to 101000 µS/cm

Cat. No.	Pk	Pack type
84144.260	500 ml	Plastic bottle

Congo Red

Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) , Direct Red 28

Danger
H350 H361d
P201 P281 P308+P313

CAS 573-58-0
Index 611-027-00-8
EINECS: 209-358-4

Restricted to professional users.

$C_{32}H_{22}N_6Na_2O_6S_2$
M.W. 696.68 g/mol
Melting Pt: Min. 360 °C
Storage Temperature: Ambient temperature

Congo Red TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
34140.184	100 g	Glass bottle

Congo Red (1 - 5%) in aqueous solution

CAS 573-58-0
EINECS: 209-358-4

$C_{32}H_{22}N_6Na_2O_6S_2$
M.W. 696.68 g/mol
Density: ~ 1 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Congo Red 1% in aqueous solution

Transition range: pH 3,0 - 5,2

Appearance ..... Dark red liquid
Identification ..... Passes test

Cat. No.	Pk	Pack type
31727.295	1 l	Glass bottle

Congo Red (0.1 - < 1%) in ethanol (< 20%)

CAS 573-58-0
EINECS: 209-358-4

$C_{32}H_{22}N_6Na_2O_6S_2$
M.W. 696.68 g/mol
Storage Temperature: Ambient temperature

NEW Congo Red 0.1% in ethanol 15% (v/v) Reag. Ph. Eur. 1022001

Cat. No.	Pk	Pack type
87805.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Coomassie® Brilliant Blue G-250

Acid Blue 90 , Brillant blue G , Brilliant indocyanine G , Coomassie Blue G 250 , Hydrogen [4-[4-(p-ethoxyanilino)-4'-[ethyl(m-sulphonatobenzyl) amino]-2'-methylbenzhydrylene]-3-methylcyclohexa-2,5-dien-1-ylidene] (ethyl)(m-sulphonatobenzyl)ammonium monosodium salt , Serva Blue G , Xylene Brilliant Cyanine G

CAS 6104-58-1
EINECS: 228-058-4

$C_{47}H_{48}N_3NaO_7S_2$
M.W. 854.04 g/mol
Density: Min. 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

VWR CHEMICALS Coomassie® Brilliant Blue G-250, ultrapure

Commonly used stain for the detection of protein bands following electrophoresis.

Em (595 nm, Water) 36300
Protein Staining ..... PASS

Cat. No.	Pk	Pack type
0615-10G	10 g	Glass bottle
0615-25G	25 g	Glass bottle
0615-50G	50 g	Plastic bottle

VWR CHEMICALS Coomassie® Brilliant Blue G-250, proteomics grade

Em (595 nm, Water) 36300
Protease ..... NONE
Protein Staining ..... PASS

Cat. No.	Pk	Pack type
M140-10G	10 g	Glass bottle
M140-25G	25 g	Glass bottle
M140-50G	50 g	Glass bottle

Coomassie® Brilliant Blue G-250

Suitability for electrophoresis ..... Passes test
Loss on drying (110 °C) ..... Max 5 %
Absorptivity (A 1%/1cm, Lambda max, dried mat., in pH 7.0 buffer) ..... 450 to 570
Absorption max. Lambda (buffer pH 7.0) ..... 577 to 584 nm
TLC test ..... Passes test

Cat. No.	Pk	Pack type
443293X	25 g	Glass bottle

Coomassie® Brilliant Blue R-250

Acid Blue 83 , Brillant blue R , Brilliant Cyanine 6B , Brilliant indocyanine 6B , Coomassie Blue R 250 , Hydrogen [4-[4-(p-ethoxyanilino)-4'-[ethyl(m-sulphonatobenzyl)amino]benzhydrylene]cyclohexa-2,5-dien-1-ylidene](ethyl) (m-sulphonatobenzyl)ammonium monosodium salt , Serva Blue R

CAS 6104-59-2
EINECS: 228-060-5

$C_{45}H_{44}N_3NaO_7S_2$
M.W. 825.98 g/mol
Melting Pt: 174 to 180 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Coomassie® Brilliant Blue R-250, proteomics grade

Dye Content (Dry Basis) ..... 65 %
Em (550 nm, Water, Dry Basis) 33000
Identification ..... PASS
Loss on Drying ..... 5.0 %
Protease ..... NONE
Solubility (0.020g/l, Water) ..... PASS

Cat. No.	Pk	Pack type
M128-10G	10 g	Glass bottle
M128-25G	25 g	Glass bottle
M128-50G	50 g	Glass bottle

Coomassie® Brilliant Blue R-250, ultrapure

Commonly used stain for the detection of protein bands following electrophoresis.

Dye Content (Dry Basis) ..... 65 %
Em (550 nm, Water, Dry Basis) 33000
Identification ..... PASS
Loss on Drying ..... 5.0 %
Solubility (0.020g/l, Water) ..... PASS

Cat. No.	Pk	Pack type
0472-10G	10 g	Glass bottle
0472-25G	25 g	Glass bottle
0472-50G	50 g	Plastic bottle

Coomassie® Brilliant Blue R-250

Identity ..... Passes test (UV/Vis)
Suitability for electrophoresis ..... Passes test
Loss on drying (105 °C) ..... Max 5 %
Absorptivity (A 1%/1cm, Lambda max, 0.005%, in pH 7.0 buffer) ..... Min 300
Absorption max. Lambda (buffer pH 7.0) ..... 554 to 559 nm
TLC test ..... Passes test

Cat. No.	Pk	Pack type
443283M	25 g	Glass bottle

Copolymer CV/A 85/15 (Copolymer vinyl chloride about 86% and vinyl acetate about 14%)

Copolymer CV/A 85/15 (Copolymer vinyl chloride about 86% and vinyl acetate about 14%) TECHNICAL

Copolymer vinyl chloride about 86% and vinyl acetate about 14%

Apparent density after settling ..... 0.3 to 0.6
Particle size ..... Max. 4 mm

Cat. No.	Pk	Pack type
27337.290	1 kg	Plastic bottle for solids

Copper

CAS 7440-50-8
EINECS: 231-159-6

Cu
M.W. 63.55 g/mol
Density: 8.94 g/cm³ (20 °C)
Boiling Pt: 2595 °C (1013 hPa)
Melting Pt: 1083 °C
Storage Temperature: Ambient temperature

Copper, turnings AnalaR NORMAPUR® analytical reagent

Insolubility in nitric acid ..... Max. 0.05 %
Fe + Al ..... Max. 0.025 %
Ag (Silver) ..... Max. 50 ppm
Pb (Lead) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
23055.232	250 g	Plastic bottle
23055.298	1 kg	Bucket (Plastic)

Copper standard solution, 10,000 mg/l Cu in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-50-8
EINECS: 231-159-6
UN: 3264
ADR 8,III

Cu
M.W. 63.55 g/mol
Density: 1.035 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Copper standard solution, 10,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP

(Cu in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455292D	100 ml	Plastic bottle
455294F	500 ml	Plastic bottle

Supplied with certificate of analysis.

Copper standard solution, 1,000 mg/l Cu in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-50-8
EINECS: 231-159-6
UN: 3264
ADR 8,III

Cu
M.W. 63.55 g/mol
Density: 1 g/cm³ (25 °C)
Boiling Pt: 100 °C (1013 hPa)
Melting Pt: 0 °C
Storage Temperature: Ambient temperature

Copper standard solution, 1,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP-MS

(Cu in 2 % HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456722Y	100 ml	Plastic bottle

Supplied with certificate of analysis.

Copper standard solution, 1,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP

(Cu in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455282B	100 ml	Plastic bottle
455284D	500 ml	Plastic bottle

Supplied with certificate of analysis.

Copper standard solution, 1,000 mg/l Cu in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86673.180	100 ml	Plastic bottle
86673.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Copper (II) acetate monohydrate

Acetic acid copper (II) salt monohydrate , Copper diacetate monohydrate , Cupric acetate monohydrate

Danger
H302 H318 H410
P280 P273 P305+P351+P338 P309+P310

CAS 6046-93-1
EINECS: 205-553-3
UN: 3077
ADR 9,III

$(H_3CCOO)_2Cu \cdot H_2O$
M.W. 199.65 g/mol
Density: 1.88 g/cm³ (20 °C)
Melting Pt: 115 °C
Storage Temperature: Ambient temperature

NEW Copper (II) acetate monohydrate AnalaR NORMAPUR®

Assay	98.0 to 102.0 %	Insolubility in water (5 %)	Max. 100 ppm
Cl (Chloride)	Max. 30 ppm	SO_4 (Sulphate)	Max. 100 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 20 ppm
K (Potassium)	Max. 100 ppm	Na (Sodium)	Max. 0.05 %
Ni (Nickel)	Max. 100 ppm		

Cat. No.	Pk	Pack type
84843.230	250 g	Plastic bottle for solids

Copper aluminium zinc alloy (50:45:5 w%)

See Devarda's alloy p.138

Copper (II) carbonate basic

Copper (II) carbonate-copper (II) hydroxide (1:1) , Copper (II) carbonate dihydroxide

Warning
H302
P301+P312

CAS 12069-69-1
EINECS: 235-113-6
UN: 3288
ADR 6.1,III

$CuCO_3 \cdot Cu(OH)_2$
M.W. 221.12 g/mol
Density: 4 g/cm³ (20 °C)
Melting Pt: 200 °C

Copper (II) carbonate basic GPR RECTAPUR®, precipitated

Assay (calculated as Cu)	55 to 58 %
Cl (Chloride)	Max. 0.05 %
SO_4 (Sulphate)	Max. 0.2 %
Fe (Iron)	Max. 0.1 %
Na (Sodium)	Max. 0.5 %
Pb (Lead)	Max. 0.05 %

Cat. No.	Pk	Pack type
23081.298	1 kg	Plastic bottle for solids

Copper (II) carbonate dihydroxide

See Copper (II) carbonate basic p.123

Copper (II) carbonate-copper (II) hydroxide (1:1)

See Copper (II) carbonate basic p.123

Copper (II) chloride dihydrate

Copper dichloride dihydrate , Cupric chloride dihydrate

Warning
H302 H319 H315 H410
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 10125-13-0
EINECS: 231-210-2
UN: 2802
ADR 8,III

$CuCl_2 \cdot 2H_2O$
M.W. 170.48 g/mol
Density: 2.54 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Copper (II) chloride dihydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (20°C; 5 %)	3.0 to 3.8
Insolubility in water	Max. 100 ppm	Total N (Nitrogen)	Max. 30 ppm
SO_4 (Sulphate)	Max. 50 ppm	As (Arsenic)	Max. 1 ppm
Fe (Iron)	Max. 10 ppm	Ni (Nickel)	Max. 10 ppm
Pb (Lead)	Max. 40 ppm	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
23093.233	250 g	Plastic bottle for solids
23093.290	1 kg	Plastic bottle for solids

Copper (II) chloride dihydrate TECHNICAL

Assay	Min. 96 %

Cat. No.	Pk	Pack type
23089.262	500 g	Plastic bottle for solids
23089.364	5 kg	Bucket (Plastic)

Copper dichloride dihydrate

See Copper (II) chloride dihydrate p.123

Copper edetate solution

NEW Copper edetate solution Reag. Ph. Eur. 1022300

Cat. No.	Pk	Pack type
87807.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Copper (II) ethylenediamine complex 1 mol/l (3 N) aqueous solution

Danger
H302 H314 H317
P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 13426-91-0
UN: 1761
ADR 8,II

$C_4H_{16}CuN_4$
M.W. 183.74 g/mol
Density: 1.1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Copper (II) ethylenediamine complex 1 mol/l (3 N) aqueous solution TECHNICAL

Density (20/4)..... 1.096 to 1.100
Mol proportion (Ethylenediamine/Cu)..... 1.96 to 2.04

Cat. No.	Pk	Pack type
24991.290	1 l	Glass bottle

Copper (II) nitrate hemipentahydrate GPR RECTAPUR®

Assay..... Min. 98 %
Cl (Chloride)..... Max. 0.02 %
SO_4 (Sulphate)..... Max. 0.05 %
Fe (Iron)..... Max. 100 ppm
Pb (Lead)..... Max. 100 ppm

Cat. No.	Pk	Pack type
23123.294	1 kg	Plastic bottle for solids

Copper (II) nitrate hemipentahydrate TECHNICAL

Assay..... Min. 97 %

Cat. No.	Pk	Pack type
23121.297	1 kg	Plastic bottle for solids
23121.366	5 kg	Bucket (Plastic)

Copper oxide

See Copper (II) oxide p.124

Copper (II) oxide

Copper oxide , Cupric oxide

Warning
H302 H410
P273 P301+P312

CAS 1317-38-0
EINECS: 215-269-1
UN: 3077
ADR 9,III

CuO
M.W. 79.55 g/mol
Density: 4.9 g/cm³ (20 °C)
Boiling Pt: 2000 °C (1013 hPa)
Melting Pt: 1326 °C
Storage Temperature: Ambient temperature

NEW Copper (II) oxide, powder AnalaR NORMAPUR®

Titolo..... Min. 99.0 %
Water..... Max. 1 %
As (Arsenic)..... Max. 50 ppm
Fe (Iron)..... Max. 50 ppm
Zn (Zinc)..... Max. 0.15 %
Insolubility in hydrochloric acid..... Max. 100 ppm
Cl (Chloride)..... Max. 0.1 %
Cd (Cadmium)..... Max. 20 ppm
Pb (Lead)..... Max. 80 ppm

Cat. No.	Pk	Pack type
84844.180	100 g	Plastic bottle for solids
84844.260	500 g	Plastic bottle for solids

Copper (II) oxide, wire for micro analysis 3.00 mm 0.50 mm

Particle size (< 36 mesh)..... Passes test

Cat. No.	Pk	Pack type
11005CK	5 kg	Plastic bottle for solids

Copper (II) oxide, powder TECHNICAL

Assay..... Min. 94 %

Cat. No.	Pk	Pack type
23144.263	500 g	Plastic bottle for solids

Copper (II) phthalocyanine-tetrasulphonic acid tetrasodium salt 0.666 g/l aqueous solution

CAS 27360-85-6
EINECS: 248-427-3

$C_{32}H_{12}CuN_8Na_4O_{12}S_4$

Copper (II) phthalocyanine-tetrasulphonic acid tetrasodium salt 0.666 g/l aqueous solution for COD determination according to NFT 90-101 standard

Concentrated solution

Dilute 1 volume in 9 volumes of water to obtain a COD theorical value of 100 mg/l

Identification..... Passes test

Cat. No.	Pk	Pack type
84519.290	1 l	Glass bottle

Copper (II) sulphate

Cupric sulphate

Warning
H302 H319 H315 H410
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 7758-98-7
Index 029-004-00-0
EINECS: 231-847-6
UN: 3288
ADR 6.1,III

$CuSO_4$
M.W. 159.61 g/mol
Density: 3.603 g/cm³ (25 °C)
Melting Pt: 200 °C
Storage Temperature: Ambient temperature

NEW Copper (II) sulphate, anhydrous AnalaR NORMAPUR®

Assay (calculated on dried substance).. Min. 99.0 %
Identification ..... Passes test
Loss on drying (250°C) ..... Max. 1 %
Total N (Nitrogen) ..... Max. 20 ppm
Fe (Iron)..... Max. 50 ppm
Appearance of solution ..... Passes test
Insolubility in water ..... Max. 100 ppm
Substances not precipitated by H_2S ..... Max. 0.2 %
Cl (Chloride) ..... Max. 50 ppm
Pb (Lead)..... Max. 100 ppm

Cat. No.	Pk	Pack type
84845.230	250 g	Plastic bottle for solids
84845.290	1 kg	Plastic bottle for solids

Copper (II) sulphate, anhydrous TECHNICAL

Assay..... Min. 97 %

Cat. No.	Pk	Pack type
23168.265	500 g	Plastic bottle for solids

Copper (II) sulphate pentahydrate

Cupric sulphate pentahydrate

Warning
H302 H319 H315 H410
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 7758-99-8
Index 029-004-00-0
EINECS: 231-847-6
UN: 3077
ADR 9,III

$CuSO_4 \cdot 5H_2O$
M.W. 249.69 g/mol
Density: 2.284 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Copper (II) sulphate pentahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay..... 99.0 to 102.0 %
Total N (Nitrogen) ..... Max. 10 ppm
Ca (Calcium)..... Max. 50 ppm
K (Potassium)..... Max. 10 ppm
Na (Sodium)..... Max. 50 ppm
Pb (Lead)..... Max. 50 ppm
Conforms to ACS ..... Passes test
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
Fe (Iron)..... Max. 30 ppm
Mg (Magnesium) ..... Max. 50 ppm
Ni (Nickel) ..... Max. 50 ppm
Zn (Zinc)..... Max. 0.03 %
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
23174.233	250 g	Plastic bottle for solids
23174.290	1 kg	Plastic bottle for solids
23174.360	5 kg	Plastic bottle for solids

Copper (II) sulphate pentahydrate, purified

Assay..... Min. 98.5 %
Cl (Chloride) ..... Max. 20 ppm
Fe (Iron)..... Max. 100 ppm

Cat. No.	Pk	Pack type
23172.293	1 kg	Plastic bottle for solids
23172.362	5 kg	Bucket (Plastic)

NEW Copper (II) sulphate pentahydrate Ph. Eur.

Assay..... 99.0 to 101.0 %
Appearance ..... Blue crystals
Identification A..... Passes test
Identification C..... Passes test
Solution S..... Passes test
Appearance of solution ..... Passes test
Cl (Chloride) ..... Max. 100 ppm
Fe (Iron)..... Max. 100.00 ppm
Pb (Lead)..... Max. 50.0 ppm
Loss on drying (250°C) ..... 35.0 to 36.5 %
Residual solvents ..... Unlikely by manuf.process

Cat. No.	Pk	Pack type
83686.292	1 kg	Plastic bottle for solids
83686.361	5 kg	Plastic bottle for solids

Copper (II) sulphate pentahydrate TECHNICAL

Assay..... Min. 98 %

Cat. No.	Pk	Pack type
23165.298	1 kg	Plastic bottle for solids
23165.367	5 kg	Bucket (Plastic)

Copper (II) sulphate (≥ 0.3 mol/l)

Warning
H302 H319 H315 H410
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 7758-98-7
EINECS: 231-847-6
UN: 3082
ADR 9,III

$CuSO_4$
Storage Temperature: Ambient temperature

NEW Copper (II) sulphate 0.5 mol/l Reag. Ph. Eur. 1022501

Cat. No.	Pk	Pack type
87808.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Copper tetramine complex in aqueous solution (Copper (II) hydroxide 10% in ammonia solution 20%)

Danger
H314 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 20427-59-2
EINECS: 243-815-9
UN: 3266
ADR 8,II

$Cu(OH)_2$
M.W. 97.56 g/mol

Copper tetramine complex in aqueous solution (Copper (II) hydroxide 10% in ammonia solution 20%) Reag. Ph. Eur. 1022600

Cat. No.	Pk	Pack type
87809.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Coverquick 1000 mounting media

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311
UN: 1866
ADR 3,II

Not to be used as power or heating fuel.
Storage Temperature: Ambient temperature

NEW Coverquick 1000, mounting medium Q PATH®

Low viscosity mounting media for histology.

IVD

Cat. No.	Pk	Pack type
05547528.	500 ml	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Coverquick 2000 mounting media

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311
UN: 1866
ADR 3,II

Not to be used as power or heating fuel.
Storage Temperature: Ambient temperature

NEW Coverquick 2000 mounting media Q PATH®

Intermediate viscosity mounting media for histology.
An excellent alternative to DPX.

IVD

Cat. No.	Pk	Pack type
05547530.	500 ml	Plastic bottle
05547531.	1 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Coverquick 3000 mounting media

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311
UN: 1866
ADR 3,II

Not to be used as power or heating fuel.
Storage Temperature: Ambient temperature

NEW Coverquick 3000 mounting media Q PATH®

Medium viscosity mounting media for histology.

IVD

Cat. No.	Pk	Pack type
05547537.	500 ml	Aluminium bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Coverquick 4000 mounting media

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311
UN: 1866
ADR 3,II

Not to be used as power or heating fuel.
Storage Temperature: Ambient temperature

NEW Coverquick 4000 mounting media Q PATH®

High viscosity mounting media for histology

IVD

Cat. No.	Pk	Pack type
05547539.	500 ml	Plastic bottle
05547540.	1 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Creatine phosphate disodium salt tetrahydrate

CAS 71519-72-7
EINECS: 213-074-6

$Na_2O_3PNHC(=NH)N(CH_3)CH_2COOH{\cdot}4H_2O$
Storage Temperature: -20°C

VWR CHEMICALS Creatine phosphate disodium salt tetrahydrate, high purity

ATP ..... 0.002 %
Inorganic Phosphate ..... 0.5 %
Purity (Enzymatic) ..... 97 %
Water (KF) ..... 20 - 24 %

Cat. No.	Pk	Pack type
0271-10G	10 g	Glass bottle
0271-25G	25 g	Plastic bottle for solids

m-Cresol

1-Hydroxy-3-methylbenzene , 3-Hydroxytoluene , 3-Methylphenol

Danger
H301+H311 H314
P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-39-4
Index 604-004-00-9
EINECS: 203-577-9
UN: 2076
ADR 6.1,II
Flash Pt: 73 °C

$CH_3C_6H_4OH$
M.W. 108.14 g/mol
Density: 1.0336 g/cm³ (20 °C)
Boiling Pt: 202.2 °C (1013 hPa)
Melting Pt: 11.5 °C
Storage Temperature: Ambient temperature

m-Cresol GPR RECTAPUR®

Assay ..... Min. 98.0 %
Bromine water test ..... Passes test
Colouration ..... Passes test
Ferric chloride test ..... Passes test
Identification ..... Passes test
Non-volatile residue ..... Max. 0.1 %
p- and o-cresol and related substances ..... Max. 2.0 %

Cat. No.	Pk	Pack type
23048.261	500 ml	Glass bottle

o-Cresolphthalein (1 - 5%) in ethanol (50-80%)

Danger
H225
P210 P243 P280

CAS 596-27-0
EINECS: 209-881-8
UN: 1170
ADR 3,III

$C_{22}H_{18}O_4$
Density: 0.886 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

NEW o-Cresolphthalein 20 g/l in ethanol 70% VOLUSOL®

An alternative to phenolphthalein in solution.

Identification ..... Passes test

Cat. No.	Pk	Pack type
84599.180	100 ml	Plastic bottle
84599.260	500 ml	Plastic bottle

Cryo-Jet Lamb's freezing aerosol

See Norflurano p.328

Cryolab freezing aerosol

NEW Cryolab freezing aerosol Q PATH®

Specially used for freezing of surgical parts before the cutting process with cryostat or with a freezing microtome.

Cat. No.	Pk	Pack type
00528200.	6 x 250 ml	Aerosol can
13328202.	12 x 650 ml	Aerosol can

Crystal violet solution

NEW Crystal violet solution Reag. Ph. Eur. 1022901

Cat. No.	Pk	Pack type
87811.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

CTAB

See Cetrimonium bromide p.102

Cupri-citric solution

NEW Cupri-citric solution Reag. Ph. Eur. 1023100

Cat. No.	Pk	Pack type
87812.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Cupri-citric solution R1

NEW Cupri-citric solution R1 Reag. Ph. Eur. 1023200

Cat. No.	Pk	Pack type
87813.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Cupric chloride dihydrate

See Copper (II) chloride dihydrate p.123

Cupric oxide

See Copper (II) oxide p.124

Cupric sulphate pentahydrate

See Copper (II) sulphate pentahydrate p.125

Cupric sulphate

See Copper (II) sulphate p.124

Cupri-tartaric solution R4

NEW Cupri-tartaric solution R4 Reag. Ph. Eur. 1023304

Cat. No.	Pk	Pack type
87815.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Cyanomethane

See Acetonitrile p.8

Cyanomethane-D3

See Acetonitrile-[D3] p.10

2,5-Cyclohexadiene-1,4-dione, compd. with 1,4-benzenediol (1:1)

See Quinhydrone p.401

Cyclohexane

Hexamethylene

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 110-82-7
Index 601-017-00-1
EINECS: 203-806-2
UN: 1145
ADR 3,II
Flash Pt: -18 °C

Not to be used as power or heating fuel.

C_6H_{12}
M.W. 84.16 g/mol
Density: 0.7785 g/cm³ (20 °C)
Boiling Pt: 81 °C (1013 hPa)
Melting Pt: 7 °C
Storage Temperature: Ambient temperature

Cyclohexane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %
Readily carbonisable substances	Passes test
Colouration	Max. 10 APHA
Density (20/20)	0.779 to 0.780
Solidification point	5.5 to 6.5 °C
Benzene	Max. 100 ppm
Evaporation residue	Max. 10 ppm
Al (Aluminium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm
Co (Cobalt)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.05 ppm
Na (Sodium)	Max. 1 ppm
Pb (Lead)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm
Conforms to BDH 10319	Passes test
Conforms to Reag. Ph.Eur.	Passes test
IR Spectrum	Passes test
Boiling point	79 to 81 °C
Density (20/4)	0.778 to 0.779
Free acidity	Max. 0.0003 meq/g
Substances discoloured by H_2SO_4	Max. 60 APHA
Cyclohexene	Max. 100 ppm
Water	Max. 100 ppm
Ba (Barium)	Max. 0.02 ppm
Cd (Cadmium)	Max. 0.05 ppm
Cr (Chromium)	Max. 0.02 ppm
K (Potassium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm
Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm
Conforms to ACS	Passes test

Cat. No.	Pk	Pack type
23224.293	1 l	Glass bottle
23224.327	2,5 l	Glass bottle
23224.362	5 l	Aluminium bottle
23224.550	200 l	Metal drum

Cyclohexane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.5 %
Water	Max. 0.01 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (230 nm)	Min. 75 %
Transmittance (240 nm)	Min. 80 %
Transmittance (250 nm)	Min. 98 %

Cat. No.	Pk	Pack type
83629.290	1 l	Glass bottle
83629.320	2,5 l	Glass bottle

Cyclohexane GPR RECTAPUR®

Assay	Min. 99.0 %
IR Spectrum	Passes test
Substances discoloured by H_2SO_4	Passes test
Density (20/4)	0.778 to 0.779
Distillation range	79 to 81 °C
Free acidity	Max. 0.0002 meq/g
Solidification point	5.5 to 6.5 °C
Evaporation residue	Max. 50 ppm
Conforms to BDH 27867	Passes test

Cat. No.	Pk	Pack type
23223.290	1 l	Glass bottle
23223.324	2,5 l	Glass bottle
23223.368	5 l	Metal can
23223.461	25 l	Metal drum
23223.552	200 l	Metal drum

Cyclohexane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.7 %
Density (20/4)	0.778 to 0.779
Evaporation residue	Max. 10 ppm
Water	Max. 100 ppm
Transmittance (210 nm)	Min. 15 %
Transmittance (220 nm)	Min. 45 %
Transmittance (230 nm)	Min. 75 %
Transmittance (240 nm)	Min. 90 %
Transmittance (from 250 nm)	Min. 98 %

Cat. No.	Pk	Pack type
23225.296	1 l	Glass bottle

trans-Cyclohexane-1,2-dinitrilotetraacetic acid monohydrate

See trans-1,2-Diaminocyclohexane-N,N,N′,N′-tetraacetic acid monohydratep.139

Cyclohexanone

Danger
H226 H332
P210 P243 P280 P304+P340 P313

CAS 108-94-1
Index 606-010-00-7
EINECS: 203-631-1
UN: 1915
ADR 3,III
Flash Pt: 43 °C

$C_6H_{10}(=O)$
M.W. 98.15 g/mol
Density: 0.9478 g/cm³ (20 °C)
Boiling Pt: 155.6 °C (1013 hPa)
Melting Pt: -31 °C
Storage Temperature: Ambient temperature

Cyclohexane PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.5 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.02 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83658.290	1 l	Glass bottle
83658.320	2,5 l	Glass bottle

Cyclohexanone analytical reagent

Assay	Min. 99.0 %
Acidity	Max. 0.005 meq/g
Density (20/4)	0.946 to 0.948
Distillation range	154.5 to 156.5 °C
n 20/D	1.449 to 1.451
Viscosity (25°C)	1.92 to 2.20 mPa.s
Cyclohexanol	Max. 0.5 %
Water	Max. 0.2 %

Cat. No.	Pk	Pack type
23236.294	1 l	Glass bottle

Cyclohexanone GPR RECTAPUR®

Assay ..... Min. 99 %
IR Spectrum ..... Passes test
n 20/D ..... 1.449 to 1.451
Water ..... Max. 0.2 %
Conforms to BDH 27871 ..... Passes test

Cat. No.	Pk	Pack type
23235.291	1 l	Glass bottle
23235.360	5 l	Plastic bottle
23235.462	25 l	Metal drum

Cyclohexatriene

See Benzene p.62

Cyclohexene

Danger
H225 H302 H304 H411
P210 P243 P280 P273 P301+P330+P331 P309+P310

CAS 110-83-8
EINECS: 203-807-8
UN: 2256
ADR 3,II
Flash Pt: -20 °C

Not to be used as power or heating fuel.

C_6H_{10}
M.W. 82.15 g/mol
Density: 0.81 g/cm³ (20 °C)
Boiling Pt: 83 °C (1013 hPa)
Melting Pt: -104 °C
Storage Temperature: Ambient temperature

NEW Cyclohexene GPR RECTAPUR®

Assay ..... Min. 99 %
Density (20/4) ..... 0.810 to 0.820
Distillation range ..... 82 to 84 °C
n 20/D ..... 1.445 to 1.447
Evaporation residue ..... Max. 0.02 %

Cat. No.	Pk	Pack type
23238.427	2,5 l	Glass bottle SAFEBREAK

Cycloheximide

Danger
H341 H360 H300 H411
P201 P281 P273 P309+P310

CAS 66-81-9
Index 613-140-00-8
EINECS: 200-636-0
UN: 2811
ADR 6.1,I

Restricted to professional users.

$C_{15}H_{23}NO_4$
M.W. 281.35 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Cycloheximide, ultrapure

Inhibitor of protein synthesis in eukaryotic organisms. Widely used to determine protein half-life and as a selection agent for yeast and fungi. Working concentration: 100 - 1000 µg/ml.

Cat. No.	Pk	Pack type
94271-100MG	100 mg	Glass bottle
94271-1G	1 g	Glass bottle
94271-5G	5 g	Glass bottle
94271-25G	25 g	Glass bottle

Cycloheximide

Inhibits DNA and protein synthesis

Assay ..... Min. 90 %
Melting point ..... 107 to 120 °C

Cat. No.	Pk	Pack type
441892A	1 g	Glass bottle
441894C	10 g	Glass bottle

2-(Cyclohexylamino)ethanesulphonic acid (CHES)

CAS 103-47-9
EINECS: 203-115-6

$C_8H_{17}NO_3S$
M.W. 207.29 g/mol
Melting Pt: 320 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS 2-(Cyclohexylamino)ethanesulphonic acid (CHES), high purity

pKa @25 °C ..... 9.3 - 9.7
Purity ..... 99.0 %
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
0392-100G	100 g	Plastic bottle
0392-500G	500 g	Plastic bottle

trans-Cyclohex-1,2-ylenediaminetetra(acetic acid) monohydrate

See trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic acid monohydrate p.139

Cyclopentane

Pentamethylene

Danger
H225 H412
P210 P243 P280 P273

CAS 287-92-3
Index 601-030-00-2
EINECS: 206-016-6
UN: 1146
ADR 3,II
Flash Pt: -41 °C

Not to be used as power or heating fuel.

C_5H_{10}
M.W. 70.13 g/mol
Density: 0.746 g/cm³ (20 °C)
Boiling Pt: 49 °C (1013 hPa)
Melting Pt: -93.3 °C
Storage Temperature: Ambient temperature

Cyclopentane TECHNICAL

Assay ..... Min. 97 %
IR Spectrum ..... Passes test
Density (20/4) ..... 0.740 to 0.745

Cat. No.	Pk	Pack type
23251.183	100 ml	Glass bottle

Cyclopentyl methyl ether (CPME)

Danger
H225 H302 H319
P210 P243 P280 P305+P351+P338

CAS 5614-37-9
UN: 3271
ADR 3,II
Flash Pt: -1 °C (closed cup)

$C_6H_{12}O$
M.W. 100.16 g/mol
Density: 0.86 g/cm³ (20 °C)

NEW Cyclopentyl methyl ether (CPME) GPR RECTAPUR®

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 50 ppm

Assay (on anhydrous substance) ..... Min. 99.9 %
Colouration ..... Max. 10 APHA
Peroxides (as H_2O_2) ..... Max. 50 ppm
Water ..... Max. 100 ppm

Cat. No.	Pk	Pack type
84565.290	1 l	Glass bottle
84565.360	5 l	Plastic bottle

D-Cycloserine

(R)-(+)-Cycloserine , D-4-Aminoisoxazolidin-3-one

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 68-41-7
EINECS: 200-688-4

$C_3H_6N_2O_2$
M.W. 102.09 g/mol
Storage Temperature: -20°C

VWR CHEMICALS D-Cycloserine, ultrapure

Inhibits cell wall biosynthesis. Recommended working concentration: 100 - 200 µg/ml in water.

Identification (IR) ..... PASS
Melting Point ..... 150 °C
Purity ..... 98 %

Cat. No.	Pk	Pack type
K646-1G	1 g	Glass bottle

Cyclosporin A

Danger
H351 H340 H361 H319 H335 H315 H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 59865-13-3

$C_{62}H_{111}N_{11}O_{12}$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Cyclosporin A, ultrapure

Assay ..... 98.5 - 101.5 %
Heavy Metals ..... 0.002 %
Identification ..... PASS
Loss on Drying ..... 2.0 %
Maximum Individual Related Compounds ..... 0.7 %
Total Related Compounds ..... 1.5 %

Cat. No.	Pk	Pack type
K983-100MG	100 mg	Glass bottle

CyDTA monohydrate

See trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic acid monohydratep.139

L(+)-Cysteine

(R)-(+)-Cysteine , H-Cys-OH

Warning
H302
P301+P312

CAS 52-90-4
EINECS: 200-158-2

$HSCH_2CH(NH_2)CO_2H$
M.W. 121.16 g/mol
Density: 1.523 g/cm³ (20 °C)
Boiling Pt: 254 °C (1013 hPa)
Melting Pt: 115 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS L(+)-Cysteine, high purity

Arsenic ..... 0.0002 %
Assay ..... 98.0 - 102.0 %
Chloride ..... 0.05 %
Heavy Metals ..... 0.0010 %
Iron ..... 0.003 %
Loss on Drying ..... 0.5 %
Residue on Ignition ..... 0.2 %
Specific Rotation ..... +7 to +9 °
Sulphate ..... 0.03 %

Cat. No.	Pk	Pack type
J994-100G	100 g	Plastic bottle for solids
J994-500G	500 g	Plastic bottle for solids

L(+)-Cysteine hydrochloride

(R)-(+)-Cysteine hydrochloride , H-Cys-OH.HCl

CAS 52-89-1
EINECS: 200-157-7

$HSCH_2CH(NH_2)COOH{\cdot}HCl$
M.W. 157.62 g/mol
Melting Pt: 175 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS L(+)-Cysteine hydrochloride, high purity

Arsenic ..... < 1.5 ppm
Chloride ..... 22.0 - 23.0 %
Heavy Metals ..... <0.0015 %
Purity ..... 98.5 %
Residue after Ignition ..... 0.4 %
Specific Rotation ..... +5.7 - +8.9 °
Sulphate ..... < 0.03 %

Cat. No.	Pk	Pack type
E305-50G	50 g	Plastic bottle for solids
E305-100G	100 g	Plastic bottle for solids
E305-500G	500 g	Plastic bottle for solids

L(+)-Cysteine hydrochloride monohydrate

(R)-(+)-Cysteine hydrochloride monohydrate , H-Cys-OH.HCl.H2O

CAS 7048-04-6
EINECS: 200-157-7

$HSCH_2CH(NH_2)COOH{\cdot}HCl{\cdot}H_2O$
M.W. 175.64 g/mol
Melting Pt: 168 to 170 °C
Storage Temperature: Ambient temperature

L(+)-Cysteine hydrochloride monohydrate for biochemistry

Assay (on anhydrous substance) ..... Min. 99 %
Spec. opt. rot. (50 g/l ; HCl 1 N;dried) ..... 6 to 7 °
Foreign amino acids ..... Max. 0.3 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ninhydrin-positive substances (glycine) ..... Max. 0.1 %
Water ..... 9.0 to 11.5 %
NH_4 (Ammonium) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
23257.183	100 g	Plastic bottle for solids

L(+)-Cysteine hydrochloride monohydrate, high purity

Arsenic ..... < 0.00015 %
Chloride Content ..... 19.8 - 20.8 %
Heavy Metals (as Pb) ..... <0.0015 %
Iron ..... <0.003 %
Loss on Drying ..... 8.0 - 12.0 %
Purity ..... 99.0 %
Residue on Ignition ..... 0.4 %
Specific Rotation ..... +5.7 to +6.8 °
Sulphate ..... < 0.03 %

Cat. No.	Pk	Pack type
0206-250G	250 g	Plastic bottle for solids
0206-500G	500 g	Plastic bottle for solids
0206-1KG	1 kg	Plastic bottle for solids

L(+)-Cysteine hydrochloride monohydrate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
23255.186	100 g	Plastic bottle for solids

(R)-(+)-Cysteine hydrochloride monohydrate

See L(+)-Cysteine hydrochloride monohydrate p.130

Cytidine-5'-triphosphoric acid trisodium salt (CTP-Na3)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

$C_9H_{13}N_3Na_3O_{14}P_3$
Storage Temperature: -20°C

Cytidine-5'-triphosphoric acid trisodium salt (CTP-Na3), ultrapure

Moisture (KF) ..... 12 %
Purity (HPLC) ..... 95 %
Purity (UV, dry basis) ..... 98 %

Cat. No.	Pk	Pack type
0611-100MG	100 mg	Plastic bottle

Cytidine

CAS 65-46-3
EINECS: 200-610-9

$C_9H_{13}N_3O_5$
Storage Temperature: Ambient temperature

Cytidine, ultrapure

Em (280 nm, 0.1N HCl) 12600

Cat. No.	Pk	Pack type
0182-25G	25 g	Plastic bottle for solids
0182-50G	50 g	Plastic bottle for solids

Cytofix, cell adhensive

Danger
H226
P210 P243 P280
UN: 1170
ADR 3,III
Storage Temperature: Ambient temperature

NEW Cytofix, cell adhesive Q PATH® for microscopy

Fixative used in cytology.

IVD

Cat. No.	Pk	Pack type
00656746.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

DAB (3,3'-Diaminobenzidine tetrahydrochloride hydrate)

Warning
H351 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338

CAS 868272-85-9
EINECS: 231-018-9

$C_{12}H_{14}N_4 \cdot 4HCl.H_2O$
Storage Temperature: -20°C

VWR CHEMICALS DAB(3,3'-Diaminobenzidine tetrahydrochloride hydrate)

Commonly used for detection of horseradish peroxidase in membrane-bound and *in situ* applications. Insoluble end product is resistant to alcohol and fading, making it ideal for immunohistochemistry.

Function Test ..... PASS
Moisture ..... REPORT
Purity ..... 98.0 %
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
0430-5G	5 g	Glass bottle
0430-10G	10 g	Glass bottle

DAB substrate system, for biotechnology

VWR CHEMICALS DAB substrate system for biotechnology

Complete substrate system includes 20 DAB substrate tablets, peroxidase solution and a mixing/dispensing dropper bottle for fast and easy preparation. Each tablet will yield 10 ml of substrate solution, enough to effectively detect 50 cm^2 of membrane or about 20 slides.

Cat. No.	Pk	Pack type
E885-200ML	200 ml	Plastic bottle

DAB substrate tabs (5mg/240mg), for biotechnology

VWR CHEMICALS DAB substrate tabs (5 mg / 240 mg), for biotechnology for biotechnology

DAB is commonly used for detection of horseradish peroxidase in membrane-bound and *in situ* applications. Insoluble end product is resistant to alcohol and fading, making it ideal for immunohistochemistry. Each tablet contains 5 mg of DAB and will yield 10 ml of substrate solution, enough to effectively detect 50 cm^2 of membrane or about 20 slides.

Cat. No.	Pk	Pack type
E733-50TABS	50	Glass bottle
E733-100TABS	100	Glass bottle

Dansyl chloride

5-(Dimethylamino)naphthalene-1-sulphonyl chloride

Danger
H314 H290
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 605-65-2
EINECS: 210-092-6
UN: 3261
ADR 8,III

$C_{12}H_{12}ClNO_2S$
M.W. 269.75 g/mol
Melting Pt: 69 to 73 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS Dansyl chloride, ultrapure

A fluorescent reagent used for labelling proteins and amino acids and for staining basic proteins.

Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0435-5G	5 g	Glass bottle
0435-10G	10 g	Glass bottle

2,4'-DDE

o,p'-DDE , 2,2,o,p'-Tetrachlorovinylidenebisbenzene

Danger
H228 H301+H311+H331
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 3424-82-6
EINECS: 222-318-0
UN: 2930
ADR 6.1,II
Flash Pt: 11 °C

$C_{14}H_8Cl_4$
M.W. 318.03 g/mol
Boiling Pt: 64 to 65 °C (1013 hPa)
Melting Pt: -98 °C
Storage Temperature: 2 - 8°C

2,4'-DDE, extra pure

Cat. No.	Pk	Pack type
123842Q	10 mg	Glass ampoule

o,p'-DDE

See 2,4'-DDE p.132

DEAE-Dextran

CAS 9015-73-0
Storage Temperature: Ambient temperature

VWR CHEMICALS DEAE-Dextran, high purity

Ash ..... 1.0 %
Loss on Drying ..... 5.0 %
Nitrogen Content ..... 3.0 - 3.5 %
pH (1%, 1M KCl) @25 °C ..... 4.0 - 6.0
Specific Optical Rotation ..... +140 to +150 °

Cat. No.	Pk	Pack type
0445-50G	50 g	Plastic bottle for solids
0445-100G	100 g	Plastic bottle for solids

Decahydronaphthalene (mixture of cis and trans isomers)

Bicyclo[4.4.0]decane , Decalin

Danger
H226 H332 H314 H411
P210 P243 P280 P273 P301+P330+P331 P304+P340
P309+P310

CAS 91-17-8
EINECS: 202-046-9
UN: 1147
ADR 3,III
Flash Pt: 57 °C

Not to be used as power or heating fuel.

$C_{10}H_{18}$
M.W. 138.25 g/mol
Density: 0.8696 g/cm³ (20 °C)
Boiling Pt: 189 to 191 °C (1013 hPa)
Melting Pt: ~ -40 °C
Storage Temperature: Ambient temperature

Decahydronaphthalene (mixture of cis and trans isomers) TECHNICAL

Assay (calculated as mixture of isomers)..... Min. 99 %
n 20/D ..... 1.473 to 1.475

Cat. No.	Pk	Pack type
23269.297	1 l	Glass bottle

Decalcifier DC1 slow-acting

Danger
H351 H301+H311+H331 H314 H317
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310
UN: 1760
ADR 8,II
Storage Temperature: Ambient temperature

NEW Decalcifier DC1 slow-acting Q PATH®

Slow decalcifier for histological use.

IVD

Cat. No.	Pk	Pack type
11028305.	2,5 l	Plastic bottle
11028303.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Decalcifier DC2 medium-acting

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311
UN: 1789
ADR 8,II
Storage Temperature: Ambient temperature

NEW Decalcifier DC2 medium-acting Q PATH®

Medium decalcifier for histological use.

IVD

Cat. No.	Pk	Pack type
11028306.	2,5 l	Plastic bottle
11028304.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Decalcifier DC3 rapid-acting Q PATH®

NEW Decalcifier DC3 rapid-acting Q PATH®

Rapid decalcifier for histological use.

IVD

Cat. No.	Pk	Pack type
09128300.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Decalin

See Decahydronaphthalene (mixture of cis and trans isomers)..... p.133

1,10-Decanedioic acid di(2-ethylhexyl) ester

See Bis(2-ethylhexyl) sebacate p.67

N-Decanoyl-N-methyl-D-glucamine (MEGA-10)

See MEGA-10 (N-Decanoyl-N-methyl-D-glucamine)..... p.280

Surface active liquid cleaning concentrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338
Storage Temperature: Ambient temperature

Decon 75®

Surface active cleaning agent for laboratory, medical and specialised industrial applications.
Supplied as a liquid concentrate, for dilution with water. For `manual` cleaning, or for use in an ultrasonic cleaning bath.
PROPERTIES: Biodegradable, bactericidal, non-flammable and totally rinsable.

Cat. No.	Pk	Pack type
148-0321	1 l	Plastic bottle
148-0322	5 l	Plastic bottle
148-0323	20 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Decon Decomatic®

A liquid surface active cleaning agent, specially formulated for use in automatic glassware washing machines
Supplied as a liquid concentrate, for use in automatic machines. PROPERTIES: Biodegradable, phosphate-free, bactericidal, non-foaming, non-flammable and totally rinsable.

Cat. No.	Pk	Pack type
141-0000	10 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Surface active liquid cleaning and decontamination concentrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

Decon 90® for manual cleaning or use in an ultrasonic cleaning bath

Surface active cleaning agent, and/or radioactive decontaminant, for laboratory, medical and specialised industrial applications.
Supplied as a liquid concentrate, for dilution with water. For `manual` cleaning, or for use in an ultrasonic cleaning bath. PROPERTIES: Biodegradable, phosphate-free, bactericidal, non-flammable and totally rinsable.

Cat. No.	Pk	Pack type
148-0324	1 l	Plastic bottle
148-0325	5 l	Plastic bottle
148-0326	20 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Acidic neutralizer and pre-cleaner concentrate

Warning
H319
P280 P305+P351+P338
Flash Pt: 113 °C (closed cup)
Density: 1.17 g/cm³ (20 °C)

Decon Acid Rinse

Acid rinse (neutralizer) and/or a preliminary cleaner (pre-wash), for use in laboratory, medical and industrial automatic glassware washing machines
Supplied as a liquid concentrate, for use in automatic machines. Disposal via normal drainage system using copious water dilution. PROPERTIES: Biodegradable, non-flammable, bactericidal, non-foaming and totally rinsable

Cat. No.	Pk	Pack type
148-0320	5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Powder surfactant, dry

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311
Storage Temperature: Ambient temperature

Dri-Decon

Surface active cleaning agent, in granular form, for use in laboratory, medical and industrial automatic glassware washing machines.
Supplied as a finely milled powder, for use in automatic machines. PROPERTIES: Biodegradable, non-flammable, non-foaming and totally rinsable

Cat. No.	Pk	Pack type
141-0001	5 kg	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Decyl β-D-glucopyranoside

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 58846-77-8
EINECS: 261-469-7

$C_{16}H_{32}O_6$
M.W. 320.43 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Decyl β-D-glucopyranoside, ultrapure

Non ionic detergent.

Purity ..... 98 %
Solubility (5%, EtOH) ..... PASS

Cat. No.	Pk	Pack type
J574-1G	1 g	Glass bottle

N-Decyl-N,N-dimethyl-3-ammonio-1-propanesulphonate

See Sulfobetaine-10 (SB-10, N-Decyl-N,N-dimethyl-3-ammonio-1-propanesulphonate) p.486

DEHP

See Bis(2-ethylhexyl) phthalate p.67

Dehydrated buffered pepton water, pre-weighed

See Microbiology

Denhardt's solution, 100x, for biotechnology

VWR CHEMICALS Denhardt's solution, 100x, for biotechnology for biotechnology

A blocking reagent for Northern and Southern blots that prevents probe binding on open membrane space and non-target nucleic acids.

pH @25°C ..... 5.0 - 7.0
Reassay Date ..... REPORT
Specific Gravity ..... REPORT

Cat. No.	Pk	Pack type
E257-10ML	10 ml	Glass bottle
E257-50ML	50 ml	Plastic bottle

Denhardt's solution, 50x

VWR CHEMICALS Denhardt's solution, 50x, ultrapure

A blocking reagent used to help prevent probe binding to open membrane space and non-target nucleic acids.

pH @25°C ..... 6.0 - 7.5
Specific Gravity ..... REPORT

Cat. No.	Pk	Pack type
E717-50ML	50 ml	Plastic bottle

Deoxy-Big CHAP (N,N-Bis[3-(D-gluconamido)propyl]deoxycholamide)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 86303-23-3

$C_{42}H_{75}N_3O_{15}$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Deoxy-Big CHAP (N,N-Bis[3-(D-gluconamido) propyl]deoxycholamide)

Non ionic detergent.

IR ..... PASS
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
J570-500MG	500 mg	Glass bottle

2-Deoxy-D(-)-ribose

2-Deoxy-D(-)-arabinose , 2-Deoxy-D(-)-erythropentose , Thyminose

CAS 533-67-5
EINECS: 208-573-0

$C_5H_{10}O_4$
M.W. 134.13 g/mol
Boiling Pt: 292 °C (1013 hPa)
Melting Pt: 95 to 97 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS 2-Deoxy-D(-)-ribose, ultrapure

Ash ..... 0.5 %
Expiration Date ..... REPORT
Iron ..... <0.0005 %
Loss on Drying ..... 0.25 %
Specific Rotation (1%, Water) ..... -58.0 to -54.0 °

Cat. No.	Pk	Pack type
0657-10G	10 g	Glass bottle

2'-Deoxyadenosine 5'-triphosphate disodium salt (dATP disodium salt) trihydrate

CAS 1927-31-7
EINECS: 277-809-2

$C_{10}H_{14}N_5Na_2O_{12}P_3.3H_2O$
Storage Temperature: -20°C

VWR CHEMICALS 2'-Deoxyadenosine 5'-triphosphate disodium salt (dATP disodium salt) trihydrate, ultrapure

Em (259 nm, Phosphate Buffer, pH 7.0) 14700

Cat. No.	Pk	Pack type
0503-50MG	50 mg	Glass bottle
0503-100MG	100 mg	Glass bottle

Deoxycholic acid sodium salt

See Sodium deoxycholate p.437

2'-Deoxycytidin-5'-triphosphoric acid trisodium salt (dCTP-Na3) dihydrate

$C_9H_{13}N_3Na_3O_{13}P_3.2H_2O$
Storage Temperature: -20°C

VWR CHEMICALS 2'-Deoxycytidin-5'-triphosphoric acid trisodium salt (dCTP-Na3) dihydrate, ultrapure

Em (280 nm, pH 2.0) 12400

Cat. No.	Pk	Pack type
0518-50MG	50 mg	Glass bottle
0518-100MG	100 mg	Glass bottle

2'-Deoxyguanosine 5'-triphosphate trisodium salt (dGTP-Na3) dihydrate

CAS 2564-35-4
EINECS: 219-887-2

$C_{10}H_{13}N_5Na_3O_{13}P_3.2H_2O$
Storage Temperature: Ambient temperature

VWR CHEMICALS 2'-Deoxyguanosine 5'-triphosphate trisodium salt (dGTP-Na3) dihydrate, ultrapure

Em (253 nm, Phosphate Buffer, pH 7.0) 13100

Cat. No.	Pk	Pack type
0526-50MG	50 mg	Glass bottle
0526-250MG	250 mg	Glass bottle

2'-Deoxyguanosine monohydrate

CAS 961-07-9
EINECS: 213-505-8

$C_{10}H_{13}N_5O_4.H_2O$
Storage Temperature: Ambient temperature

VWR CHEMICALS 2'-Deoxyguanosine monohydrate, ultrapure

Em (252 nm, Phosphate Buffer, pH 7.0) 13300

Cat. No.	Pk	Pack type
0475-250MG	250 mg	Glass bottle
0475-1G	1 g	Glass bottle

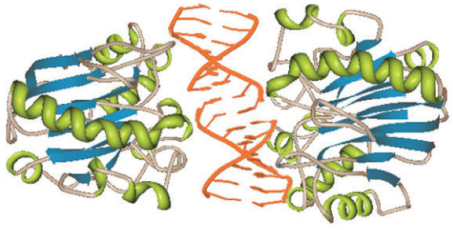
DEPC

See Diethyl pyrocarbonate p.146

Desoxyribonuclease I (DNase I)

CAS 9003-98-9
EINECS: 232-667-0
Storage Temperature: -20°C

VWR CHEMICALS Desoxyribonuclease I (DNase I) (from Bovine Pancreas), ultrapure



Structure of DNase I-octamer complex. PDB 2DNJ. Lahm, A., Suck, D. (1991) *J. Mol. Biol.* **222.** 645-667.

From bovine pancreas. RNase free. Supplied as lyophilized powder.

Activity (Kunitz, Protein) @ 25°C ..... 1800 u/mg
RNase ..... NONE

Cat. No.	Pk	Pack type
0649-50KU	50 KU	Glass bottle
0649-100KU	100 KU	Glass bottle

Destaining solution

UN: 2920
ADR 8,II
Storage Temperature: Ambient temperature

NEW **Destaining solution Reag. Ph. Eur. 1012202**

Cat. No.	Pk	Pack type
87788.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Detergents (cleaning and decontamination)

See Decon, Labwash

Deuterated NMR solvents

- Packed in 10x 0,6 (0,75) ml glass ampoules or 10, 25 or 100 ml glass bottles
- Packed also in 10 ml with special septum caps (see codes ending in 0011)
- More than 99,9% purity, 99,8% deuteration degree, with and without TMS
- These solvents also have a very low water content
- Isotopic enrichment (FT NM R 400 MH z) min. 99,80% D (99,5%for acetic acid D4)

Description	Page	Pk	Cat. No.
Acetic acid-[D4] 99.50 for NMR spectroscopy	5, 137	10 ml	87151.0010
Acetone-[D6] 99.80 for NMR spectroscopy	8, 137	10 ml	87152.0010
Acetone-[D6] 99.80 for NMR spectroscopy	8, 137	10 ml	87152.0011
Acetone-[D6] 99.80 for NMR spectroscopy	8, 137	25 ml	87152.0025
Acetone-[D6] 99.80 for NMR spectroscopy	8, 137	100 ml	87152.0100
Acetone-[D6] 99.80 for NMR spectroscopy	8, 137	10 x 0,6 ml	87152.0006
Acetonitrile-[D3] 99.80 for NMR spectroscopy	10, 137	10 ml	87155.0010
Acetonitrile-[D3] 99.80 for NMR spectroscopy	10, 137	10 ml	87155.0011
Benzene-[D6] 99.80 for NMR spectroscopy	63, 137	10 ml	87160.0010
Benzene-[D6] 99.80 for NMR spectroscopy	63, 137	10 ml	87160.0011
Benzene-[D6] 99.80 for NMR spectroscopy	63, 137	25 ml	87160.0025
Benzene-[D6] 99.80 for NMR spectroscopy	63, 137	100 ml	87160.0100
Chloroform-[D1] 99.80 for NMR spectroscopy	108, 137	10 ml	87153.0010
Chloroform-[D1] 99.80 for NMR spectroscopy	108, 137	25 ml	87153.0025
Chloroform-[D1] 99.80 for NMR spectroscopy	108, 137	100 ml	87153.0100
Chloroform-[D1] 99.80 for NMR spectroscopy	108, 137	500 ml	87153.0500
Chloroform-[D1] 99.80 for NMR spectroscopy	108, 137	1 Pack	87153.0006
Chloroform-[D1] 0.03% TMS (99,8% D) for NMR spectroscopy	108, 137	25 ml	84111.0025
Chloroform-[D1] 0.03% TMS (99,8% D) for NMR spectroscopy	108, 137	100 ml	84111.0100
Deuterium oxide 99.96 for NMR spectroscopy	137, 138	10 ml	87156.0011
Deuterium oxide 99.96 for NMR spectroscopy	137, 138	25 ml	87156.0025
Deuterium oxide 99.96 for NMR spectroscopy	137, 138	100 ml	87156.0100
Deuterium oxide (99.92% D) for NMR spectroscopy	137, 138	500 ml	84541.0500
Dichloromethane-[D2] 99.80 for NMR spectroscopy	137, 143	10 ml	87161.0010
Dichloromethane-[D2] 99.80 for NMR spectroscopy	137, 143	25 ml	87161.0025
Dichloromethane-[D2] 99.80 for NMR spectroscopy	137, 143	1 Pack	87161.0006
Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy	137, 151	10 ml	87154.0010
Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy	137, 151	10 ml	87154.0011
Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy	137, 151	25 ml	87154.0025
Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy	137, 151	100 ml	87154.0100
Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy	137, 151	1 Pack	87154.0006
Dimethyl sulphoxide-[D6] 0.03% TMS (99.8% D) for NMR spectroscopy	137, 152	25 ml	84113.0025
Dimethyl sulphoxide-[D6] 0.03% TMS (99.8% D) for NMR spectroscopy	137, 152	100 ml	84113.0100
Dimethyl sulphoxide-[D6] 0.03% TMS (99.8% D) for NMR spectroscopy	137, 152	1 Pack	84113.0007
Methanol-[D4] (99.80% D) for NMR spectroscopy	137, 287	10 ml	87157.0010
Methanol-[D4] (99.80% D) for NMR spectroscopy	137, 287	25 ml	87157.0025
Methanol-[D4] (99.80% D) for NMR spectroscopy	137, 287	100 ml	87157.0100
Methanol-[D4] (99.80% D) for NMR spectroscopy	137, 287	1 Pack	87157.0006
Methanol-[D4] (99.8% D) contains 0.03% TMS for NMR spectroscopy	137, 288	10 ml	84116.0010
Methanol-[D4] (99.8% D) contains 0.03% TMS for NMR spectroscopy	137, 288	10 ml	87157.0011
Tetrahydrofuran-[D8] (99.5% D) for NMR spectroscopy	137, 501	10 ml	87158.0010
Toluene-[D8] (99.5% D) for NMR spectroscopy	137, 511	10 ml	87159.0010
Toluene-[D8] (99.5% D) for NMR spectroscopy	137, 511	25 ml	87159.0025

0011 - Glass bottle with septum cap

Deuterium oxide

Heavy water , Water-D2

CAS 7789-20-0
EINECS: 232-148-9

D_2O
M.W. 20 g/mol
Density: 1.1 g/cm³ (20 °C)
Boiling Pt: 101.3 °C (1013 hPa)
Melting Pt: 3.8 °C
Storage Temperature: 2 - 8°C

Deuterium oxide 99.96 for NMR spectroscopy

Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.96 %

Cat. No.	Pk	Pack type
87156.0011	10 ml	Glass bottle with septum cap
87156.0025	25 ml	Glass bottle
87156.0100	100 ml	Glass bottle

NEW Deuterium oxide (99.92% D) for NMR spectroscopy

Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.92 %

Cat. No.	Pk	Pack type
84541.0011	10 ml	Glass bottle with septum cap
84541.0500	500 ml	Glass bottle

Devarda's alloy

Copper aluminium zinc alloy (50:45:5 w%) , Devarda's metal

CAS 8049-11-4
UN: 3089
ADR 4.1,II
Density: 5.79 g/cm³ (20 °C)
Boiling Pt: 906 °C (1013 hPa)
Melting Pt: 490 to 560 °C
Storage Temperature: Ambient temperature

Devarda's alloy, powder AnalaR NORMAPUR® analytical reagent

N (Nitrogen) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20942.181	100 g	Plastic bottle for solids
20942.294	1 kg	Plastic bottle for solids

Devarda's metal

See Devarda's alloy p.138

Dextran

CAS 9004-54-0
EINECS: 232-677-5

$(C_6H_{10}O_5)n$
M.W. 162.14 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Dextran, reagent grade

Loss on Drying ..... 7.0 %
pH (6%, Water) @25 °C ..... 3.75 - 7.00
Residue after Ignition ..... 2.0 %
Specific Rotation ..... REPORT

Cat. No.	Pk	Pack type
0665-10G	10 g	Plastic bottle for solids
0665-100G	100 g	Plastic bottle for solids

Dextran 150 (Mr ~ 150,000 g/mol)

CAS 9004-54-0
EINECS: 232-677-5

$(C_6H_{10}O_5)n$
M.W. average 150000 g/mol

Dextran 150 (Mr ~ 150,000 g/mol), powder

Appearance ..... White/almost white powder
Intrinsic viscosity (37 °C) ..... 0.32 to 0.37
Loss on drying ..... Max. 10.0 %
pH range ..... 4.0 to 7.0
Solubility in water (1 %) ..... Passes test
Ashes ..... Max. 2.0 %

Cat. No.	Pk	Pack type
381082M	100 g	Glass bottle
381082M1	1 kg	Glass bottle

Dextran 250 (Mr ~ 250,000 g/mol)

CAS 9004-54-0
EINECS: 232-677-5

$(C_6H_{10}O_5)n$
M.W. average 250000 g/mol

Dextran 250 (Mr ~ 250,000 g/mol), powder

Appearance ..... White/almost white powder
Intrinsic viscosity (37 °C) ..... 0.4 to 0.5
Loss on drying ..... Max. 10.0 %
pH range ..... 4.0 to 7.0
Solubility in water (1 %) ..... Passes test
Ashes ..... Max. 2.0 %

Cat. No.	Pk	Pack type
381092P	100 g	Glass bottle

Dextran sulphate 500 sodium salt (Mr ~ 500,000 g/mol)

CAS 9011-18-1

$(C_6H_7Na_3O_{14}S_3)n$
M.W. 500000 g/mol
Storage Temperature: 2 - 8°C

VWR CHEMICALS Dextran sulphate 500 sodium salt (Mr ~ 500,000 g/mol), ultrapure

Used for the detection of DNA or RNA in nucleic acid hybridisation procedures. It effectively "excludes" probe from solution, accelerating the rate of annealing.

DNase ..... NONE
Heavy Metals ..... 0.005 %
Identification ..... PASS
Iron ..... 0.001 %
Loss on Drying ..... 10.0 %
pH (1%, Water) @25 °C ..... 6.4 - 8.0
Protease ..... NONE
Purity ..... 98.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0198-50G	50 g	Plastic bottle for solids
0198-250G	250 g	Plastic bottle for solids

Dextran sulphate solution 50%, for biotechnolgy

Dextran sulphate sodium salt solution 50% for biotechnology

Used for the detection of DNA or RNA in nucleic acid hybridisation procedures. It effectively "excludes" probe from solution, accelerating the rate of annealing.

APHA (1:10) ..... REPORT
DNase ..... NONE
RNase ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
E516-100ML	100 ml	Plastic bottle

Decalcifying solution (D.F.B. - H. K. Kristensen)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3412
ADR 8,II
Storage Temperature: Ambient temperature

Decalcifying solution (D.F.B. - H. K. Kristensen)

pH (25°C) ..... 2.20 to 2.70

Cat. No.	Pk	Pack type
352432C	5 l	Plastic bag

Technical data sheet and instructions available on vwr.com

DFB

See Decalcifying solution (D.F.B. - H. K. Kristensen) p.139

Diacetone alcohol

See 4-Hydroxy-4-methyl-2-pentanone p.232

Diacetyl dioxime

See Dimethyl glyoxime p.150

Diacetyl glyoxime

See Dimethyl glyoxime p.150

(S)-(+)-2,6-Diaminocaproic acid monohydrochloride

See L(+)-Lysine monohydrochloride p.270

trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic acid monohydrate

CDTA monohydrate , CyDTA monohydrate , trans-Cyclohex-1,2-ylenediaminetetra(acetic acid) monohydrate , trans-Cyclohexane-1,2-dinitrilotetraacetic acid monohydrate , trans-Cyclohex-1,2-ylenediaminetetra acetic acid monohydrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 125572-95-4
EINECS: 236-308-9

$C_{14}H_{22}N_2O_8.1H_2O$
M.W. 364.35 g/mol
Melting Pt: 213 to 216 °C
Storage Temperature: Ambient temperature

trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic acid monohydrate

Assay (calculated on anhydrous) ..... Min. 99.0 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20284.153	50 g	Plastic bottle for solids

1,2-Diaminoethane

See Ethylenediamine p.182

(S)-(+)-2,6-Diaminohexanoic acid monohydrochloride

See L(+)-Lysine monohydrochloride p.270

3,8-Diamino-5-methyl-6-phenylphenanthridinium bromide

See Dimidium bromide p.152

2,7-Diamino-10-methyl-9-phenylphenanthridinium bromide

See Dimidium bromide p.152

Diammonium hexanitratocerate

See Ammonium cerium (IV) nitrate p.31

Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate

See di-Ammonium hydrogen citrate p.35

Diammonium hydrogenorthophosphate

See di-Ammonium hydrogen orthophosphate p.35

Diamondfuchsin

See Basic Fuchsin p.192

Diaphragm cleaner with thiourea

Warning
H351 H361d H302 H411
P201 P281 P273 P309+P311
UN: 3082
ADR 9,III
M.W. 76.12 g/mol
Density: 1.41 g/cm³ (20 °C)
Melting Pt: 177 °C
Storage Temperature: Ambient temperature

Diaphragm cleaner with thiourea for pH-electrodes

Control ..... Passes test

Cat. No.	Pk	Pack type
83604.260	500 ml	Plastic bottle

Diazinon

O,O-Diethyl O-2-isopropyl 6-methyl pyrimidin-4-yl phosphorothionate , O,O-Diethyl O-2-isopropyl 6-methyl pyrimidin-4-yl thiophosphate

Warning
H302 H410
P273 P301+P312

CAS 333-41-5
Index 015-040-00-4
EINECS: 206-373-8
UN: 3018
ADR 6.1,III
Flash Pt: 104.4 °C (closed cup)

$C_{12}H_{21}N_2O_3PS$
M.W. 304.35 g/mol
Density: 1.116 g/cm³ (20 °C)
Boiling Pt: 306 °C (1013 hPa)

Diazinon, extra pure

Cat. No.	Pk	Pack type
123962A	10 mg	Glass ampoule

Diazinon (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 333-41-5
EINECS: 206-373-8
UN: 1230
ADR 3,II

$C_{12}H_{21}N_2O_3PS$
M.W. 304.35 g/mol
Storage Temperature: Ambient temperature

Diazinon 100 µg/ml in methanol

Cat. No.	Pk	Pack type
123972C	1 ml	Glass ampoule

Dibismuth carbonate dioxide

See Bismuth (III) carbonate basic p.69

Dibismuth trioxide

See Bismuth (III) oxide p.69

1,3-Dibromopropane

Danger
H226 H302 H315 H411
P210 P243 P280 P273 P301+P312 P302+P352

CAS 109-64-8
EINECS: 203-690-3
UN: 1993
ADR 3,III
Flash Pt: 47 °C

$BrH_2CCH_2CH_2Br$
M.W. 201.89 g/mol
Density: 1.99 g/cm³ (20 °C)
Boiling Pt: 167 °C (1013 hPa)
Melting Pt: -34 °C
Storage Temperature: Ambient temperature

NEW 1,3-Dibromopropane TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
28770.180	100 ml	Glass bottle

Dibutyl phthalate

Phthalic acid dibutyl ester , DBP

Danger
H360Df H400
P201 P281 P273 P308+P313

CAS 84-74-2
Index 607-318-00-4
EINECS: 201-557-4
UN: 3082
ADR 9,III
Flash Pt: 171 °C (closed cup)

Restricted to professional users.

$C_{16}H_{22}O_4$
M.W. 278.35 g/mol
Density: 1.04 g/cm³ (20 °C)
Boiling Pt: 340 °C (1013 hPa)
Melting Pt: -35 °C
Storage Temperature: Ambient temperature

Dibutyl phthalate TECHNICAL

Assay ..... Min. 99 %
Acidity ..... Max. 0.003 meq/g
Ignition residue (SO_4) ..... Max. 0.1 %
Water ..... Max. 0.2 %

Cat. No.	Pk	Pack type
22111.296	1 l	Glass bottle
22111.365	5 l	Plastic bottle
22111.467	25 l	Metal drum

Dibutylamine

N-butyl-1-propanamine

Danger
H226 H302+H312+H332
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 111-92-2
Index 612-049-00-0
EINECS: 203-921-8
UN: 2248
ADR 8,II
Flash Pt: 43 °C

$C_8H_{19}N$
M.W. 129.25 g/mol
Density: 0.759 g/cm³ (20 °C)
Boiling Pt: 159 °C (1013 hPa)
Melting Pt: -62 °C
Storage Temperature: Ambient temperature

Dibutylamine, purified

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
23337.293	1 l	Glass bottle

Dicarboxylic-1,2 acids (reagents for the analysis of)

Resorcinol AnalaR NORMAPUR® analytical reagent p.408

1,2-Dichloroethane

Ethylene chloride , Ethylene dichloride

Danger
H225 H350 H302 H319 H335 H315
P201 P210 P243 P281 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 107-06-2
Index 602-012-00-7
EINECS: 203-458-1
UN: 1184
ADR 3,II
Flash Pt: 13 °C

Restricted to professional users.

ClH_2CCH_2Cl
M.W. 98.96 g/mol
Density: 1.254 g/cm³ (20 °C)
Boiling Pt: 83.5 °C (1013 hPa)
Melting Pt: -35.5 °C
Storage Temperature: Ambient temperature

1,2-Dichloroethane AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Acidity	Max. 0.0005 meq/g
Density (20/4)	1.252 to 1.254	Distillation range	82 to 84 °C
Evaporation residue	Max. 10 ppm	Free chlorine	Max. 1 ppm
Water	Max. 0.03 %		

Cat. No.	Pk	Pack type
23343.294	1 l	Glass bottle
23343.328	2,5 l	Glass bottle

1,2-Dichloroethane GPR RECTAPUR®

Assay	Min. 99 %
Density (20/4)	1.252 to 1.254
Distillation range	82.5 to 84.5 °C
Evaporation residue	Max. 50 ppm

Cat. No.	Pk	Pack type
23341.297	1 l	Glass bottle

1,2-Dichloroethane TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
23340.363	5 l	Fluorinated plastic bottle

Dichloromethane

Methylene chloride

Warning
H351
P201 P281 P308+P313

CAS 75-09-2
Index 602-004-00-3
EINECS: 200-838-9
UN: 1593
ADR 6.1,III

CH_2Cl_2
M.W. 84.93 g/mol
Density: 1.322 g/cm³ (20 °C)
Boiling Pt: 39.8 °C (1013 hPa)
Melting Pt: -95 °C
Storage Temperature: Ambient temperature

Dichloromethane HiPerSolv CHROMANORM® for HPLC

Stabilised with ethanol 0.1 %

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.05 %
Non-volatile residue	Max. 0.001 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (240 nm)	Min. 98 %
Transmittance (245 nm)	Min. 80 %
Transmittance (260 nm)	Min. 50 %

Cat. No.	Pk	Pack type
83623.290	1 l	Glass bottle
83623.320	2,5 l	Glass bottle

Dichloromethane HiPerSolv CHROMANORM® for HPLC

Stabilised with 2-methyl-2-butene 20 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.05 %
Non-volatile residue	Max. 0.001 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (240 nm)	Min. 50 %
Transmittance (245 nm)	Min. 80 %
Transmittance (260 nm)	Min. 98 %
Conforms to BDH 15245	Passes test

Cat. No.	Pk	Pack type
23373.290	1 l	Glass bottle
23373.320	2,5 l	Glass bottle

NEW Dichloromethane SPECTRONORM® for spectroscopy

Stabilised with 2-methyl-2-butene

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.01 %
Transmittance (230 nm)	Min. 5 %
Transmittance (240 nm)	Min. 80 %
Transmittance (250 nm)	Min. 90 %
Transmittance (260 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84702.290	1 l	Glass bottle
84702.320	2,5 l	Glass bottle

Dichloromethane, anhydrous (max. 0.001% H_2O)

Stabilised with 2-methyl-2-butene 20 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 10 ppm

Cat. No.	Pk	Pack type
83682.230	250 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Dichloromethane PESTINORM® for capillary GC analysis

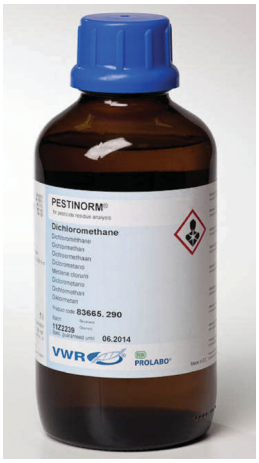
Stabilised with 2-methyl-2-butene 20 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Evaporation residue (100°C)	Max. 0.0005 %
Water	Max. 0.05 %
Organic residue (as Octanol) (GC/FID)	Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83961.320	2,5 l	Glass bottle

Dichloromethane PESTINORM® for pesticide residue analysis



Stabilised with 2-methyl-2-butene 20 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Water	Max. 0.02 %
Evaporation residue	Max. 0.0005 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83665.290	1 l	Glass bottle
83665.320	2,5 l	Glass bottle

Dichloromethane, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Stabilised with 2-methyl-2-butene 20 ppm

Appearance	Clear colourless liquid	Acidity	Max. 0.001 %
Colour value	Max. 10 APHA	Assay (calculated on anhydrous)	Min. 99.8 %
Water (K.F.)	Max. 0.005 %	Chloromethane	Max. 0.01 %
Carbon tetrachloride	Max. 0.01 %	Substances discoloured by H_2SO_4	Max. 60 APHA
Free chlorine	Max. 0.00003 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.3 ppm

Cat. No.	Pk	Pack type
25630.290	1 l	Glass bottle

Dichloromethane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Stabilised with 2-methyl-2-butene 20 ppm

Assay (on anhydrous substance)	Min. 99.5 %	IR Spectrum	Passes test
Acidity	Max. 0.0003 meq/g	Boiling point	39.0 to 40.5 °C
Colouration	Max. 10 APHA	Density (20/4)	1.322 to 1.327
Substances discoloured by H_2SO_4	Max. 60 APHA	Carbon tetrachloride	Max. 100 ppm
Chloroform	Max. 100 ppm	Evaporation residue	Max. 10 ppm
Free halogens	Max. 0.3 ppm	2-Methyl-2-butene	10 to 55 ppm
Water	Max. 0.02 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm
Fluorescence (as quinine) (365/460 nm)	Max. 2 ppb	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
23366.293	1 l	Glass bottle
23366.327	2,5 l	Glass bottle

Dichloromethane AnalaR NORMAPUR® analytical reagent

Stabilised with ethanol 0.1 %

Assay (on anhydrous substance)	Min. 99.5 %	Acidity	Max. 0.0005 meq/g
Colouration	Max. 10 APHA	Density (20/4)	1.322 to 1.327
Distillation range	39.0 to 40.5 °C	Substances discoloured by H_2SO_4	Max. 60 APHA
Carbon tetrachloride	Max. 100 ppm	Chloroform	Max. 100 ppm
Ethanol	0.15 to 0.25 %	Evaporation residue	Max. 10 ppm
Free chlorine	Max. 0.3 ppm	Water	Max. 0.02 %
Al (Aluminium)	Max. 0.05 ppm	B (Boron)	Max. 0.01 ppm
Ba (Barium)	Max. 0.01 ppm	Ca (Calcium)	Max. 0.2 ppm
Cd (Cadmium)	Max. 0.02 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm	Sn (Tin)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.2 ppm		

Cat. No.	Pk	Pack type
23354.292	1 l	Glass bottle
23354.326	2,5 l	Glass bottle

Dichloromethane Ph. Eur.

Stabilised with ethanol 0.1 %

Appearance	Clear colourless liquid
Identification B	Passes test
Identification C	Passes test
Acidity	Passes test
Relative density	1.320 to 1.332
Refractive index (20°C)	1.423 to 1.425
Ethanol (V/V)	Max. 2.0 %
2-Methyl-2-butene (V/V)	Max. 300 ppm
Total of other impurities (V/V)	Max. 0.1 %
Impurity A (V/V)	Max. 10 ppm
Impurity B (V/V)	Max. 50 ppm
Free chlorine	Passes test
Heavy metals (as Pb)	Max. 1 ppm
Residue on evaporation	Max. 20 ppm
Water	Max. 0.02 %
Other residual solvents	Unlikely by manuf.process

Cat. No.	Pk	Pack type
23365.290	1 l	Glass bottle
23365.461	25 l	Metal drum
23365.552	200 l	Metal drum

Dichloromethane GPR RECTAPUR®

Stabilised with 2-methyl-2-butene 20 ppm

Assay	Min. 99 %
IR Spectrum	Passes test
Acidity	Max. 0.0004 meq/g
Density (20/4)	1.322 to 1.327
Distillation range	39.0 to 40.5 °C
Evaporation residue	Max. 10 ppm
Free chlorine	Max. 0.3 ppm
Heavy metals (as Pb)	Max. 2 ppm
Water	Max. 0.02 %
Cl (Chloride)	Max. 3 ppm
Conforms to BDH 28096	Passes test

Cat. No.	Pk	Pack type
23367.296	1 l	Glass bottle
23367.321	2,5 l	Glass bottle
23367.365	5 l	Fluorinated plastic bottle
23367.467	25 l	Metal drum
23367.550	189 l	Metal drum

Dichloromethane GPR RECTAPUR®

Stabilised with ethanol 0.1 %

Assay	Min. 99 %
Acidity	Max. 0.0004 meq/g
Density (20/4)	1.322 to 1.327
Distillation range	39.0 to 40.5 °C
Evaporation residue	Max. 10 ppm
Water	Max. 0.02 %

Cat. No.	Pk	Pack type
25631.293	1 l	Glass bottle
25631.327	2,5 l	Glass bottle
25631.362	5 l	Fluorinated plastic bottle
25631.464	25 l	Metal drum
25631.555	190 l	Metal drum

Dichloromethane, dehydrated (max. 0.01% H_2O) GPR RECTAPUR® for synthesis

Stabilised with ethanol 0.1 %

Assay	Min. 99 %
Evaporation residue	Max. 50 ppm
Water	Max. 100 ppm

Cat. No.	Pk	Pack type
23349.363	5 l	Fluorinated plastic bottle

Dichloromethane TECHNICAL

Stabilised with ethanol 0.15 %

Assay (on anhydrous substance)	Min. 98 %

Cat. No.	Pk	Pack type
25629.295	1 l	Glass bottle
25629.364	5 l	Fluorinated plastic bottle
25629.466	25 l	Metal drum

Dichloromethane, acidified with 1% hydrochloric acid

Warning
H351
P201 P281 P308+P313

CAS 75-09-2
Index 602-004-00-3
EINECS: 200-838-9

CH_2Cl_2
M.W. 84.93 g/mol
Storage Temperature: Ambient temperature

Dichloromethane, acidified with 1% hydrochloric acid Reag. Ph. Eur. 1055901

Cat. No.	Pk	Pack type
87871.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Dichloromethane-[D2]

Methylene chloride-D2

Warning
H351
P201 P281 P308+P313

CAS 1665-00-5
EINECS: 216-776-0
UN: 1593
ADR 6.1,III

CD_2Cl_2
M.W. 86.92 g/mol
Density: 1.36 g/cm^3 (20 °C)
Boiling Pt: 40 °C (1013 hPa)
Melting Pt: -97 °C
Storage Temperature: Ambient temperature

Dichloromethane-[D2] 99.80 for NMR spectroscopy

Assay (on anhydrous substance)	Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D)	Min. 99.80 %
Water	Max. 0.02 %

Cat. No.	Pk	Pack type
87161.0010	10 ml	Glass bottle
87161.0025	25 ml	Glass bottle
87161.0006	1 Pack	Glass ampoule

3,5-Dichloro-N-(1,1-dimethylprop-2-ynyl)benzamide

See Propyzamide p.395

2,6-Dichlorophenolindophenol sodium salt

Sodium 4-(3,5-dichloro-4-oxocyclohexa-2,5-dienylideneamino)phenoxide , Tillmans' reagent , 2,6-Dichloroindophenol sodium

CAS 620-45-1
EINECS: 210-640-4

$C_{12}H_6Cl_2NNaO_2$
M.W. 290.08 g/mol
Storage Temperature: Ambient temperature

2,6-Dichlorophenolindophenol sodium salt, tablets for the determination of vitamin C

An accurate determination of the Vitamin C content of urine in cases of suspected deficiency, or following the administration of a test dose, can be made within a few minutes by the use of compressed tablets, each containing an accurately standardized quantity of 2,6-dichloro-phenolindophenol. Dichlorophenolindophenol tablets BDH contain an amount of the indicator which is reduced to its colourless form by 1 mg of Vitamin C (20 international units); that is to say 1 mg of Vitamin C is just sufficient to decolorise a solution containing one tablet.

Appearance	Purple tablets
Shape	Biconvex
Tablet weight	114 to 140 mg
Diameter	6.0 to 7.0 mm
Average hardness (kp)	Min. 2

Cat. No.	Pk	Pack type
230212X	20 Tab.	Plastic bottle

Technical data sheet and instructions available on vwr.com

2,6-Dichlorophenolindophenol sodium salt hydrate

Sodium 4-(3,5-dichloro-4-oxocyclohexa-2,5-dienylideneamino)phenoxide hydrate , Tillmans' reagent hydrate , 2,6-Dichloroindophenol sodium hydrate

CAS 620-45-1
EINECS: 210-640-4

$C_{12}H_6Cl_2NNaO_2.H_2O$
M.W. 290.09 g/mol
Melting Pt: Min. 300 °C

2,6-Dichlorophenolindophenol sodium salt hydrate, powder analytical reagent

Assay (on anhydrous substance)	Min. 98 %
IR Spectrum	Passes test
Foreign dyestuffs	Passes test
Loss on drying (120 °C)	Max. 14 %

Cat. No.	Pk	Pack type
23347.105	5 g	Glass bottle

Diethylamine

Danger
H225 H302+H312+H332 H314
P210 P243 P280 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 109-89-7
Index 612-003-00-X
EINECS: 203-716-3
UN: 1154
ADR 3,II
Flash Pt: -39 °C

$(C_2H_5)_2NH$
M.W. 73.14 g/mol
Density: 0.7048 g/cm³ (20 °C)
Boiling Pt: 55.5 °C (1013 hPa)
Melting Pt: -50 °C
Storage Temperature: Ambient temperature

Diethylamine GPR RECTAPUR®

Assay	Min. 99 %
Density (20/4)	0.700 to 0.710
Distillation range	54 to 56 °C
Evaporation residue	Max. 0.05 %
Heavy metals (as Pb)	Max. 20 ppm

Cat. No.	Pk	Pack type
23378.261	500 ml	Glass bottle

(Diethylamino)ethane

See Triethylamine p.514

(Diethyldithiocarbamato-S,S')silver

See Silver diethyldithiocarbamate p.426

(Diethyldithiocarbamato-S,S')sodium trihydrate

See Sodium diethyldithiocarbamate trihydrate p.437

N,N-Diethyldithiocarbamic acid silver salt

See Silver diethyldithiocarbamate p.426

Diethyldithiocarbamic acid silver salt

See Silver diethyldithiocarbamate p.426

Diethyldithiocarbamic acid sodium salt trihydrate

See Sodium diethyldithiocarbamate trihydrate p.437

N,N-Diethyldithiocarbamic acid sodium salt trihydrate

See Sodium diethyldithiocarbamate trihydrate p.437

1,4-Diethylene dioxide

See 1,4-Dioxane p.152

Diethylene glycol monobutyl ether

Butyldigol , 2-(2-Butoxyethoxy)ethanol

Warning
H319
P280 P305+P351+P338

CAS 112-34-5
Index 603-096-00-8
EINECS: 203-961-6
Flash Pt: 100 °C

$CH_3(CH_2)_3OCH_2CH_2OCH_2CH_2OH$
M.W. 162.23 g/mol
Density: 0.954 g/cm³ (20 °C)
Boiling Pt: 230.4 °C (1013 hPa)
Melting Pt: -68 °C
Storage Temperature: Ambient temperature

Diethylene glycol monobutyl ether TECHNICAL

Assay	Min. 98 %
n 20/D	1.431 to 1.433

Cat. No.	Pk	Pack type
23831.291	1 l	Glass bottle

Diethyl ether

Ethoxyethane , 2,2'-Oxybisethane , 2,2'-Oxydiethane , Ether

Danger
H224 H302 H336
EUH019 EUH066
P210 P243 P280 P304+P340 P309+P311

CAS 60-29-7
Index 603-022-00-4
EINECS: 200-467-2
UN: 1155
ADR 3,I
Flash Pt: -40 °C

$(CH_3CH_2)_2O$
M.W. 74.12 g/mol
Density: 0.7135 g/cm³ (20 °C)
Boiling Pt: 35 °C (1013 hPa)
Melting Pt: -123 °C
Storage Temperature: Ambient temperature

Diethyl ether HiPerSolv CHROMANORM® for HPLC

Stabilised with ethanol 1 %

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.5 %
Water	Max. 0.05 %
Evaporation residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Peroxides	Max. 5 ppm
Colour number (Hazen)	Max. 10
Transmittance (220 nm)	Min. 30 %
Transmittance (230 nm)	Min. 50 %
Transmittance (250 nm)	Min. 80 %
Transmittance (270 nm)	Min. 90 %
Transmittance (300 nm)	Min. 98 %

Cat. No.	Pk	Pack type
83624.320	2,5 l	Glass bottle

NEW Diethyl ether SPECTRONORM® for spectroscopy

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.5 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.02 %
Transmittance (230 nm)	Min. 40 %
Transmittance (250 nm)	Min. 75 %
Transmittance (260 nm)	Min. 90 %
Transmittance (270 nm)	Min. 95 %
Transmittance (280 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84703.290	1 l	Glass bottle
84703.320	2,5 l	Glass bottle

Diethyl ether, anhydrous (max. 0.0025% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0003 %
Water	Max. 0.005 %

Cat. No.	Pk	Pack type
83671.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

Diethyl ether PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.5 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.02 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83659.320	2,5 l	Glass bottle

Diethyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.7 %	Assay (Ionol/BHT)	4 to 10 ppm
Aldehydes	Not detected by GC	Insolubility in water	Passes test
IR Spectrum	Passes test	Acidity	Max. 0.0001 meq/g
Boiling point	34 to 35 °C	Colouration	Max. 10 APHA
Relative density	0.714 to 0.715	Substances discoloured by H_2SO_4	Max. 10 APHA
Acetone	Max. 10 ppm	Aldehydes + ketones (as HCHO)	Max. 5 ppm
Carbonyl compounds (as HCHO)	Max. 10 ppm	Ethanol	Max. 0.05 %
Evaporation residue	Max. 5 ppm	Methanol	Max. 0.02 %
Peroxides (as H_2O_2)	Max. 0.15 ppm	Water	Max. 100 ppm
Al (Aluminium)	Max. 0.5 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.05 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Na (Sodium)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
23811.292	1 l	Glass bottle
23811.326	2,5 l	Glass bottle
23811.361	5 l	Aluminium bottle
23811.463	25 l	Steel drum

Diethyl ether Ph. Eur.

Assay (Ionol/BHT)	Passes test
Appearance	Clear colourless liquid
Acidity	Passes test
Relative density	0.714 to 0.716
Distillation range	34.0 to 35.0 °C
Non-volatile matter	Max. 20 mg/l
Substances with a foreign odour	Passes test
Aldehydes	Passes test
Peroxides	Passes test
Water	Max. 2 g/l
Residual solvents	Passes test

Cat. No.	Pk	Pack type
23819.298	1 l	Glass bottle
23819.367	5 l	Aluminium bottle
23819.460	25 l	Steel drum

Diethyl ether GPR RECTAPUR® peroxide free

Assay	Min. 99 %
Assay (Ionol/BHT)	4 to 7 ppm
Acidity or alkalinity	Max. 0.0002 meq/g
Aldehydes + ketones (as HCHO)	Max. 5 ppm
Evaporation residue	Max. 20 ppm
Peroxides (as H_2O_2)	Max. 0.15 ppm
Water	Max. 0.2 %

Cat. No.	Pk	Pack type
23806.328	2,5 l	Glass bottle

Diethyl ether GPR RECTAPUR®

Assay ..... Min. 99 %
Assay (Ionol/BHT) ..... 4 to 7 ppm
Acidity ..... Max. 0.0003 meq/g
Evaporation residue ..... Max. 20 ppm
Water ..... Max. 0.2 %

Cat. No.	Pk	Pack type
23809.294	1 l	Glass bottle
23809.328	2,5 l	Glass bottle
23809.363	5 l	Aluminium bottle
23809.465	25 l	Metal drum

Diethyl ether TECHNICAL, rectified

Identification ..... Passes test

Cat. No.	Pk	Pack type
23807.366	5 l	Aluminium bottle
23807.468	25 l	Metal drum

Diethyl phthalate

Phthalic acid diethyl ester

CAS 84-66-2
EINECS: 201-550-6
Flash Pt: 156 °C (closed cup)

$C_{12}H_{14}O_4$
M.W. 222.24 g/mol
Density: 1.12 g/cm³ (20 °C)
Boiling Pt: 298 °C (1013 hPa)
Melting Pt: -3 °C
Storage Temperature: Ambient temperature

Diethyl phthalate GPR RECTAPUR®

Assay ..... Min. 99.5 %
Density (20/4) ..... 1.110 to 1.120
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
23395.362	5 l	Plastic bottle

Diethyl phthalate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
23995.467	25 l	Metal drum

Diethyl pyrocarbonate

DEPC , Diethyl dicarbonate

Warning
H302 H319 H335
P280 P304+P340 P305+P351+P338 P309+P311

CAS 1609-47-8
EINECS: 216-542-8
Flash Pt: 69 °C

$O(COOC_2H_5)_2$
M.W. 162.14 g/mol
Density: 1.123 g/cm³ (20 °C)
Boiling Pt: 93 °C (1013 hPa)
Storage Temperature: 2 - 8°C

Diethyl pyrocarbonate, high purity

DEPC is used to inactivate RNase enzymes from water and other laboratory utensils. DEPC covalently modifies histidine residues in RNase enzymes. DEPC can be used with PBS or MOPS buffer, but is incompatible with Tris and HEPES.

Identification ..... PASS
Purity (acid assay) ..... 97.5 %

Cat. No.	Pk	Pack type
E174-5G	5 g	Glass bottle
E174-25G	25 g	Glass bottle
E174-100G	100 g	Glass bottle

O,O-Diethyl O-2-isopropyl 6-methyl pyrimidin-4-yl phosphorothionate

See Diazinon p.140

O,O-Diethyl O-2-isopropyl 6-methyl pyrimidin-4-yl thiophosphate

See Diazinon p.140

O,O-Diethyl O-3,5,6-trichloro-2-pyridyl phosphorothionate

See Chlorpyrifos p.109

O,O-Diethyl O-3,5,6-trichloro-2-pyridyl thiophosphate

See Chlorpyrifos p.109

Diholmium trioxide

See Holmium (III) oxide p.219

1,2-Dihydroacenaphthylene

See Acenaphthene p.1

Dihydrogen hexachloroplatinate(IV) hexahydrate

See Hexachloroplatinic (IV) acid hexahydrate p.213

(6aS,11bR)-7,11b-Dihydro-6H-indeno[2,1-c]chromene-3,4,6a,9,10-pentol monohydrate

See Haematoxylin monohydrate p.209

β-Dihydronicotinamide adenine dinucleotide disodium salt (NADH-Na2, reduced form)

Nicotinamide adenine dinucleotide reduced, disodium salt (reduced form)

CAS 606-68-8
EINECS: 210-123-3

$C_{21}H_{27}N_7Na_2O_{14}P_2$
M.W. 709.41 g/mol

β-Dihydronicotinamide adenine dinucleotide disodium salt (NADH-Na2, reduced form)

Assay ..... Min. 95.0 %
Water ..... Max. 8.0 %
Na (Sodium) ..... 5.0 to 8.0 %
Molar extinction (260 nm) (10^3 l/mol.cm) ..... 13.9 to 14.9
Molar extinction (340 nm) (10^3 l/mol.cm) ..... 6.1 to 6.5
Proportion A250/A260 (10 mM Tris; pH 10) ..... 0.79 to 0.85
Proportion A280/A260 (10 mM Tris; pH 10) ..... 0.21 to 0.25
Proportion A340/A260 (10 mM Tris; pH 10) ..... 0.42 to 0.44

Cat. No.	Pk	Pack type
424237L	0,5 g	Glass bottle
424236K	2,5 g	Glass bottle

3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione
See Caffeine p.90

1,3-Dihydroxybenzene
See Resorcinol p.408

1,4-Dihydroxybenzene
See Hydroquinone p.232

3α,12α-Dihydroxy-5β-cholan-24-oic acid sodium salt
See Sodium deoxycholate p.437

3α,12α-Dihydroxycholan-24-oic acid sodium salt
See Sodium deoxycholate p.437

3α,12α-Dihydroxy-5β-cholanic acid sodium salt
See Sodium deoxycholate p.437

3α,12α-Dihydroxycholanic acid sodium salt
See Sodium deoxycholate p.437

6,7-Dihydroxycumarin-6β-D-glucopyranoside sesquihydrate
See Aesculin sesquihydrate p.18

1,2-Dihydroxy ethane
See Ethylene glycol p.181

1,3-Dihydroxy propane
See 1,3-Propanediol p.391

(±)-1,2-Dihydroxy propane
See (±)-1,2-Propanediol p.391

4,5-Dihydroxy-2,7-naphthalenedisulphonic acid disodium salt dihydrate
See Chromotropic acid disodium salt dihydrate p.112

3,4-dihydroxyanthraquinon-2-ylmethyliminodi(acetic acid)
See Alizarin complexone p.22

4,5-Dihydroxynaphthalene-2,7-disulphonic acid disodium salt dihydrate
See Chromotropic acid disodium salt dihydrate p.112

(R,R)-(+)-2,3-Dihydroxysuccinic acid
See L(+)-Tartaric acid p.494

2,2'-Dihydroxy-4'-sulpho-1,1'-azonaphthalene-3-carboxylic acid
See Patton-Reeders reagent (Calconcarboxylic acid) p.340

2,6-Dihydroxy-1,3,7-trimethylpurine
See Caffeine p.90

Diiodomethane
Methylene iodide

CAS 75-11-6
EINECS: 200-841-5
UN: 2810
ADR 6.1,III
Flash Pt: 110 °C (closed cup)

CH_2I_2
M.W. 267.84 g/mol
Density: 3.32537 g/cm³ (20 °C)
Boiling Pt: 182 °C (1013 hPa)
Melting Pt: 6 °C
Storage Temperature: Ambient temperature

Diiodomethane AnalaR NORMAPUR® analytical reagent, for mineralogy

Assay (on anhydrous substance)	Min. 99.4 %	Acidity	Max. 0.003 meq/g
Density (20/4)	3.310 to 3.322	Solidification point	5.6 to 6.2 °C

Cat. No.	Pk	Pack type
25633.186	100 ml	Glass bottle

Diiron trioxide
See Iron (III) oxide p.251

Diiron trissulphate hydrate
See Iron (III) sulphate hydrate p.252

Diisobutylene
See 2,4,4-Trimethylpentene p.516

Diisopropyl ether

Danger
H225 H336
EUH019 EUH066
P210 P243 P280 P304+P340 P312

CAS 108-20-3
Index 603-045-00-X
EINECS: 203-560-6
UN: 1159
ADR 3,II
Flash Pt: -28 °C

$(CH_3)_2CHOCH(CH_3)_2$
M.W. 102.18 g/mol
Density: 0.726 g/cm³ (20 °C)
Boiling Pt: 68.5 °C (1013 hPa)
Melting Pt: -86 °C
Storage Temperature: Ambient temperature

Diisopropyl ether AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99 %	Acidity	Max. 0.0007 meq/g
Boiling point	67 to 69 °C	Colouration	Max. 10 APHA
Density (20/20)	0.723 to 0.728	Evaporation residue	Max. 50 ppm
Peroxides (as H_2O_2)	Max. 10 ppm	Water	Max. 0.05 %
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.2 ppm
Ba (Barium)	Max. 0.2 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.2 ppm	Co (Cobalt)	Max. 0.2 ppm
Cr (Chromium)	Max. 0.2 ppm	Cu (Copper)	Max. 0.2 ppm
Fe (Iron)	Max. 0.5 ppm	Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.2 ppm	Ni (Nickel)	Max. 0.2 ppm
Pb (Lead)	Max. 0.2 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.2 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
24900.296	1 l	Glass bottle

Diisopropyl ether TECHNICAL

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 10 ppm

Assay ..... Min. 99 %
Appearance ..... Clear colourless liquid
IR Spectrum ..... Passes test
Peroxides ..... Not detectable
Propan-2-ol ..... Max. 1.5 %

Cat. No.	Pk	Pack type
24896.291	1 l	Glass bottle

(R,R)-1,4-Dimercapto-2,3-butandiol

See Dithiothreitol (DTT, Cleland's reagent) p.155

Dimethoxymethane

See Formaldehyde dimethyl acetal p.190

N,N-Dimethylacetamide

Acetic acid dimethylamide

Danger
H360D H312+H332
P201 P281 P302+P352 P304+P340 P309+P311

CAS 127-19-5
Index 616-011-00-4
EINECS: 204-826-4
UN: 2810
ADR 6.1,III
Flash Pt: 70 °C

Restricted to professional users.

$CH_3CON(CH_3)_2$
M.W. 87.12 g/mol
Density: 0.937 g/cm³ (20 °C)
Boiling Pt: 166.1 °C (1013 hPa)
Melting Pt: -20 °C
Storage Temperature: Ambient temperature

N,N-Dimethylacetamide HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.5 %
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 500 ppm
Transmittance (270 nm) ..... Min. 10 %
Transmittance (290 nm) ..... Min. 71 %
Transmittance (310 nm) ..... Min. 89 %
Transmittance (320 nm) ..... Min. 94 %
Transmittance (400 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
83636.350	4 l	Glass bottle

N,N-Dimethylacetamide AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
IR Spectrum ..... Passes test
Colouration ..... Max. 10 APHA
Water ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 10 ppm
Fe (Iron) ..... Max. 1 ppm
Insolubility in water ..... Passes test
Acidity ..... Max. 0.02 meq/g
Non-volatile residue ..... Max. 100 ppm
Cl (Chloride) ..... Max. 10 ppm
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 1 ppm

Cat. No.	Pk	Pack type
103646E	2,5 l	Glass bottle

N,N-Dimethylacetamide TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
23426.291	1 l	Glass bottle

4-(Dimethylamino)benzaldehyde

4-(N,N-Dimethylamino)benzaldehyde

CAS 100-10-7
EINECS: 202-819-0
Flash Pt: Min. 100 °C

$(CH_3)_2NC_6H_4CHO$
M.W. 149.19 g/mol
Density: 1.0254 g/cm³ (99.9 °C)
Boiling Pt: 176-177 °C (1013 hPa)
Melting Pt: 72 °C
Storage Temperature: Ambient temperature

4-(Dimethylamino)benzaldehyde AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99 %
IR Spectrum ..... Passes test
Solution in acetic acid ..... Passes test
Heavy metals (as Pb) ..... Max. 10 ppm
Insolubility in alcohol ..... Max. 100 ppm
Cu (Copper) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm
Bases of indole type ..... Passes test
Organic impurities ..... Passes test
Melting point ..... 72 to 74 °C
Ignition residue (SO_4) ..... Max. 0.1 %
Cl (Chloride) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
23439.158	50 g	Plastic bottle for solids
23439.238	250 g	Plastic bottle for solids

4-(Dimethylamino)benzaldehyde TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
23438.268	500 g	Plastic bottle for solids

Dimethylaminobenzaldehyde solution R6

NEW

Dimethylaminobenzaldehyde solution R6 Reag. Ph. Eur. 1029803

Cat. No.	Pk	Pack type
87816.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

4-(N,N-Dimethylamino)benzaldehyde

See 4-(Dimethylamino)benzaldehyde p.148

1,2-Dimethylbenzene

See o-Xylene p.545

1,4-Dimethylbenzene

See p-Xylene p.545

Dimethylbenzene

See Xylene (mixture of isomers) p.544

Dimethyl carbinol

See 2-Propanol p.392

N,N-Dimethylcasein

N,N-Dimethylcasein

A substrate for the determination of proteases

Suited for enzyme substrate for protease	Passes test
Fats	Max. 1.5 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 7.5 %
Water	Max. 10 %
N (Nitrogen)	12 to 15 %
P (Phosphorus)	0.6 to 0.85 %

Cat. No.	Pk	Pack type
40058LH	10 g	Plastic bottle

Dimethyldichlorosilane in heptane

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 75-78-5
EINECS: 200-901-0
UN: 1993
ADR 3,II

Not to be used as power or heating fuel.

$(CH_3)_2SiCl_2$
M.W. 129.06 g/mol

Dimethyldichlorosilane 2% in heptane Electran® for electrophoresis

Designed to give water repellant properties to glassware. Suitable for use in electrophoresis to prevent adhesion of gels to glass plates.

Cat. No.	Pk	Pack type
437494J	500 ml	Glass bottle

N,N-Dimethylformamide

DMF , Formic acid dimethylamide , Formdimethylamide

Danger
H226 H360D H312+H332 H319
P280 P261 P302+P352 P304+P340 P305+P351+P338
P308+P313

CAS 68-12-2
Index 616-001-00-X
EINECS: 200-679-5
UN: 2265
ADR 3,III
Flash Pt: 59 °C (closed cup)

Restricted to professional users.

$HCOON(CH_3)_2$
M.W. 73.1 g/mol
Density: 0.949 g/cm³ (20 °C)
Boiling Pt: 153 °C (1013 hPa)
Melting Pt: -61 °C
Storage Temperature: Ambient temperature

N,N-Dimethylformamide HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.9 %
Water	Max. 0.02 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Fluorescence (as quinine) (365 nm)	Max. 1 ppb
Transmittance (270 nm)	Min. 10 %
Transmittance (275 nm)	Min. 50 %
Transmittance (290 nm)	Min. 80 %
Transmittance (300 nm)	Min. 90 %
Transmittance (330 nm)	Min. 98 %
Conforms to BDH 15297	Passes test

Cat. No.	Pk	Pack type
83634.320	2,5 l	Glass bottle

NEW N,N-Dimethylformamide SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.05 %
Transmittance (270 nm)	Min. 30 %
Transmittance (280 nm)	Min. 70 %
Transmittance (290 nm)	Min. 80 %
Transmittance (300 nm)	Min. 90 %
Transmittance (330 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84710.290	1 l	Glass bottle
84710.320	2,5 l	Glass bottle

N,N-Dimethylformamide, anhydrous (max. 0.005% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water (K.F.)	Max. 0.005 %

Cat. No.	Pk	Pack type
83675.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

NEW N,N-Dimethylformamide for peptide synthesis

Assay (calculated on anhydrous)	Min. 99.8 %
Appearance	Clear colourless liquid
Acidity	Max. 0.001 %
Colour value	Max. 10 APHA
Free amines	Max. 0.001 %
Formaldehyde	Max. 0.002 %
Residue on evaporation	Max. 0.001 %
Water	Max. 0.01 %
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
84571.320	2,5 l	Glass bottle

N,N-Dimethylformamide, dehydrated (max. 0.015% H_2O) for synthesis

Assay (GC)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Dimethylamine	Max. 10 ppm
Evaporation residue	Max. 10 ppm
Water	Max. 150 ppm

Cat. No.	Pk	Pack type
83691.320	2,5 l	Glass bottle

N,N-Dimethylformamide AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.8 %	IR Spectrum	Passes test
Acidity	Max. 0.00025 meq/g	Alkalinity	Max. 0.003 meq/g
Boiling point	152 to 155 °C	Colouration	Max. 10 APHA
Density (20/4)	0.946 to 0.950	Density (20/20)	0.949 to 0.952
n 20/D	1.429 to 1.431	Evaporation residue	Max. 10 ppm
Water	Max. 0.05 %	Al (Aluminium)	Max. 0.5 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.01 ppm
Sr (Strontium)	Max. 0.05 ppm	Zn (Zinc)	Max. 0.01 ppm
Conforms to BDH 10322	Passes test	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
23466.298	1 l	Glass bottle
23466.323	2,5 l	Glass bottle

N,N-Dimethylformamide GPR RECTAPUR®

Assay	Min. 99 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test
Density (20/4)	0.940 to 0.950
Distillation range	152 to 155 °C
n 20/D	1.429 to 1.431
Evaporation residue	Max. 100 ppm
Water	Max. 0.05 %

Cat. No.	Pk	Pack type
23470.293	1 l	Glass bottle
23470.327	2,5 l	Plastic bottle
23470.442	20 l	Plastic drum

N,N-Dimethylformamide TECHNICAL

Assay	Min. 98 %
n 20/D	1.429 to 1.431

Cat. No.	Pk	Pack type
23469.298	1 l	Plastic bottle
23469.367	5 l	Plastic bottle

Dimethyl glyoxime

2,3-Butanedione dioxime , Diacetyl dioxime , Diacetyl glyoxime

Danger
H228
P280

CAS 95-45-4
EINECS: 202-420-1

$CH_3C(=NOH)C(=NOH)CH_3$
M.W. 116.12 g/mol
Density: 1.37 g/cm³ (20 °C)
Boiling Pt: 53 °C (8 torr)
Melting Pt: 240 to 241 °C
Storage Temperature: Ambient temperature

Dimethyl glyoxime AnalaR NORMAPUR® analytical reagent

Assay	Min. 99 %	Melting point	238 to 242 °C
Ignition residue (SO_4)	Max. 0.05 %	Insolubility in ethanol 96 % vol	Max. 0.05 %

Cat. No.	Pk	Pack type
23474.150	50 g	Plastic bottle for solids

Dimethyl ketone

See Acetone p.6

Dimethyl ketone-D6

See Acetone-[D6] p.8

2,9-Dimethyl-1,10-phenanthroline hydrochloride monohydrate

See Neocuproine hydrochloride monohydrate p.319

2,9-Dimethyl-1,10-phenanthrolinium chloride monohydrate

See Neocuproine hydrochloride monohydrate p.319

N,N-Dimethyl-1,4-phenylenediammonium dichloride

Danger
H301+H311+H331
P280 P302+P352 P304+P340 P309+P310

CAS 536-46-9
EINECS: 208-635-7
UN: 2811
ADR 6.1,II

$(CH_3)_2NC_6H_4NH_2 \cdot 2HCl$
M.W. 209.12 g/mol
Melting Pt: 208 to 212 °C
Storage Temperature: Ambient temperature

NEW N,N-Dimethyl-1,4-phenylenediammonium dichloride analytical reagent

Assay	Min. 99.0 %
Ignition residue (SO_4)	Max. 0.1 %

Cat. No.	Pk	Pack type
23484.132	25 g	Glass bottle

Dimethyl sulphoxide

DMSO

CAS 67-68-5
EINECS: 200-664-3
Flash Pt: 87 °C

$(CH_3)_2SO$
M.W. 78.14 g/mol
Density: 1.101 g/cm³ (20 °C)
Boiling Pt: 189 °C (1013 hPa)
Melting Pt: 18.5 °C
Storage Temperature: 15 - 25°C

NEW Dimethyl sulphoxide SPECTRONORM® for spectroscopy

Assay (GC)	Min. 99.5 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.05 %
Transmittance (300 nm)	Min. 80 %
Transmittance (330 nm)	Min. 90 %
Transmittance (340 nm)	Min. 95 %
Transmittance (350 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84711.290	1 l	Glass bottle
84711.320	2,5 l	Glass bottle

Dimethyl sulphoxide, anhydrous (max. 0.005% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 50 ppm

Cat. No.	Pk	Pack type
83673.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

Dimethyl sulphoxide, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Assay (calculated on anhydrous) ..... Min. 99.5 %
Heavy metals (as Pb) ..... Max. 0.0001 %
Water ..... Max. 0.01 %
Fe (Iron) ..... Max. 0.0001 %
Residue on evaporation ..... Max. 0.001 %

Cat. No.	Pk	Pack type
23488.294	1 l	Glass bottle

Dimethyl sulphoxide, dehydrated (max. 0.03% H_2O) AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
IR Spectrum ..... Passes test
Substances coloured by H_2SO_4 ..... Passes test
Acidity ..... Max. 0.0002 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Colouration ..... Max. 10 APHA
Melting point ..... Min. 18 °C
Evaporation residue ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 1 ppm
Water ..... Max. 0.03 %
Al (Aluminium) ..... Max. 0.2 ppm
Ba (Barium) ..... Max. 0.02 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.1 ppm
K (Potassium) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.05 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Na (Sodium) ..... Max. 5 ppm
Pb (Lead) ..... Max. 0.05 ppm
Sn (Tin) ..... Max. 0.1 ppm
Sr (Strontium) ..... Max. 0.02 ppm
Zn (Zinc) ..... Max. 0.1 ppm
Conforms to BDH 10323 ..... Passes test

Cat. No.	Pk	Pack type
23500.260	500 ml	Glass bottle
23500.297	1 l	Glass bottle
23500.322	2,5 l	Glass bottle

Dimethyl sulphoxide stationary phase for GC

Assay ..... Min. 99.5 %

Cat. No.	Pk	Pack type
23487.291	1 l	Glass bottle

Dimethyl sulphoxide Ph. Eur.

Appearance ..... Clear colourless liquid
Identification C ..... Passes test
Acidity ..... Passes test
Relative density ..... 1.100 to 1.104
Refractive index (20 °C) ..... 1.478 to 1.479
Related substances ..... Passes test
Solidification point ..... Min. 18.3 °C
Absorbance ..... Passes test
Water ..... Max. 0.2 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
83529.290	1 l	Glass bottle

Dimethyl sulphoxide GPR RECTAPUR®

Assay ..... Min. 99.0 %
IR Spectrum ..... Passes test
Evaporation residue ..... Max. 50 ppm
Water ..... Max. 0.05 %
Cu (Copper) ..... Max. 5 ppm
Fe (Iron) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
282164K	500 ml	Glass bottle
282166M	2,5 l	Glass bottle

VWR CHEMICALS Dimethyl sulphoxide (DMSO), ultrapure

Acidity ..... PASS
Congealing Point ..... 18.3 °C
Dimethyl Sulfone ..... PASS
Endotoxins ..... REPORT
Identification ..... PASS
Nonvolatile Residue ..... 5.0 mg
Purity ..... 99.9 %
Refractive index ..... 1.4755 - 1.4775
Specific Gravity ..... 1.095 - 1.101
Sterility ..... PASS
Substances darkened by KOH ..... PASS
Water (KF) ..... 0.1 %

Cat. No.	Pk	Pack type
N182-5X10ML	5	Plastic tube

Dimethyl sulphoxide TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
23486.297	1 l	Plastic bottle
23486.322	2,5 l	Plastic bottle

Dimethyl sulphoxide-[D6]

DMSO-D6

CAS 2206-27-1
EINECS: 218-617-0
Flash Pt: 82 °C (closed cup)

$D_3CS(O)CD_3$
M.W. 84.09 g/mol
Density: 1.19 g/cm³ (20 °C)
Boiling Pt: 189 °C (5 mmHg)
Melting Pt: 20.2 °C
Storage Temperature: Ambient temperature

Dimethyl sulphoxide-[D6] 99.80 for NMR spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water ..... Max. 0.02 %

Cat. No.	Pk	Pack type
87154.0010	10 ml	Glass bottle
87154.0011	10 ml	Glass bottle with septum cap
87154.0025	25 ml	Glass bottle
87154.0100	100 ml	Glass bottle
87154.0006	10 x 0,6 ml	Glass ampoule
87154.0007	10 x 0,75 ml	Glass ampoule

Dimethyl sulphoxide-[D6] 0.03% TMS (99.8% D) for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water ..... Max. 0.02 %

Cat. No.	Pk	Pack type
84113.0011	10 ml	Glass bottle with septum cap
84113.0025	25 ml	Glass bottle
84113.0100	100 ml	Glass bottle
84113.0007	1 Pack	Glass ampoule

1 Pack = 10 x 0,75 ml

3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide

Warning
H341 H319 H335 H315
P280 P305+P351+P338

CAS 298-93-1
EINECS: 206-069-5

$C_{18}H_{16}N_5BrS$
M.W. 414.33 g/mol
Storage Temperature: 2 - 8°C

3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide, ultrapure

MTT, a yellow tetrazole dye, can be reduced to a water-insoluble purple formazan compound by mitochondrial reductase enzymes. Since reduction only occurs in living cells the quantitation of formazan can be equated to the number of viable cells in the population.

- Sensitive colorimetric substitute for radioisotopes in cell proliferation and cytotoxicity studies
- Applications include cell viability assays, dose response curves and cytotoxicity assays

Melting Range w/ Decomposition ..... 187 °C
Purity ..... 98.0 %
Solubility (5%, 50% MeOH) ..... PASS

Cat. No.	Pk	Pack type
0793-500MG	500 mg	Glass bottle
0793-1G	1 g	Glass bottle
0793-5G	5 g	Glass bottle

O,O-Dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate

See Azinphos-methyl p.57

Dimidium bromide

3,8-Diamino-5-methyl-6-phenylphenanthridinium bromide , 2,7-Diamino-10-methyl-9-phenylphenanthridinium bromide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 518-67-2
EINECS: 208-256-7
UN: 2811
ADR 6.1,I

$C_{20}H_{18}BrN_3$
M.W. 380.29 g/mol
Melting Pt: 243 to 248 °C
Storage Temperature: Ambient temperature

Dimidium bromide GPR RECTAPUR®

Identity ..... Passes test (UV/Vis)
Assay (spectrophotometric) ..... Min 95 %
Loss on drying (110 °C) ..... Max 5 %
Absorption max. Lambda (MeOH) ..... 523 to 528 nm
Absorptivity (A 1%/1cm,Lambda max, 0.0005%, MeOH) ..... 166 to 175
TLC test ..... Passes test

Cat. No.	Pk	Pack type
201272P	1 g	Glass ampoule

Dinitrobenzoic acid solution

NEW Dinitrobenzoic acid solution Reag. Ph. Eur. 1031301

Cat. No.	Pk	Pack type
87819.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

2,6-Dinitro-N,N-dipropyl-4-trifluoromethylaniline

See Trifluralin p.515

2,2'-Dinitro-5,5'-dithiodibenzoic acid

See 5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB) p.155

1,4-Dioxacyclohexane

See 1,4-Dioxane p.152

1,4-Dioxane

1,4-Diethylene dioxide , 1,4-Dioxacyclohexane , Glycolethylether , p-Dioxane

Danger
H225 H351 H319 H335
EUH019 EUH066
P201 P210 P243 P281 P304+P340 P305+P351+P338
P309+P311

CAS 123-91-1
Index 603-024-00-5
EINECS: 204-661-8
UN: 1165
ADR 3,II
Flash Pt: 12 °C

$C_4H_8O_2$
M.W. 88.11 g/mol
Density: 1.03 g/cm³ (20 °C)
Boiling Pt: 101.1 °C (1013 hPa)
Melting Pt: 11.8 °C
Storage Temperature: 15 - 25°C

1,4-Dioxane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 0.05 %
Transmittance (245 nm) ..... Min. 50 %
Transmittance (270 nm) ..... Min. 80 %
Transmittance (300 nm) ..... Min. 98 %
Conforms to BDH 15290 ..... Passes test

Cat. No.	Pk	Pack type
83628.320	2,5 l	Glass bottle

NEW 1,4-Dioxane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.02 %
Transmittance (270 nm) ..... Min. 70 %
Transmittance (280 nm) ..... Min. 85 %
Transmittance (290 nm) ..... Min. 95 %
Transmittance (300 nm) ..... Min. 97 %
Transmittance (310 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
84715.290	1 l	Glass bottle

1,4-Dioxane, anhydrous (max. 0.003% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue ..... Max. 3 ppm
Water ..... Max. 30 ppm

Cat. No.	Pk	Pack type
83674.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

1,4-Dioxane, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Colouration ..... Max. 10 APHA
Water ..... Max. 0.01 %
Evaporation residue ..... Max. 50 ppm
Acidity or alkalinity ..... Max. 0.001 meq/g
Peroxides (as H_2O_2) ..... Max. 0.01 %
Acetyls and carbonyl derivatives ..... Max. 40 ppm
Fe (Iron) ..... Max. 1 ppm

Cat. No.	Pk	Pack type
23539.291	1 l	Glass bottle

1,4-Dioxane AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.5 %
Colouration ..... Max. 10 APHA
Distillation range ..... 100 to 102 °C
Acetaldehyde ..... Max. 30 ppm
Evaporation residue ..... Max. 50 ppm
Peroxides ..... Max. 100 ppm
Fe (Iron) ..... Max. 1 ppm
Acidity or alkalinity ..... Max. 0.001 meq/g
Density (20/4) ..... 1.030 to 1.035
Solidification point ..... Min. 11.0 °C
Acetone ..... Max. 5 ppm
Formaldehyde ..... Max. 5 ppm
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
23540.295	1 l	Glass bottle
23540.320	2,5 l	Glass bottle

1,4-Dioxane GPR RECTAPUR®

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 25 ppm

Assay ..... Min. 99 %
Density (20/4) ..... 1.030 to 1.035
Distillation range ..... 99 to 102 °C

Cat. No.	Pk	Pack type
23532.297	1 l	Glass bottle
23532.366	5 l	Fluorinated plastic bottle
23532.468	25 l	Metal drum

1,4-Dioxane (< 1%) in aqueous solution

CAS 123-91-1
EINECS: 204-661-8
UN: 1165
ADR 3,II

$C_4H_8O_2$

NEW 1,4-Dioxane 0.1% in aqueous solution Reag. Ph. Eur. 1032001

Cat. No.	Pk	Pack type
87820.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

NEW 1,4-Dioxane 0.05% in aqueous solution Reag. Ph. Eur. 1032002

Cat. No.	Pk	Pack type
87821.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

1,3-Dioxolane

Danger
H225
P210 P243 P280

CAS 646-06-0
Index 605-017-00-2
EINECS: 211-463-5
UN: 1166
ADR 3,II

$C_3H_6O_2$
M.W. 74.08 g/mol
Density: 1.066 g/cm³ (15 °C)
Boiling Pt: 75 °C (1013 hPa)
Melting Pt: -95 °C

1,3-Dioxolane GPR RECTAPUR® for synthesis

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 0.03 %

Assay ..... Min. 99.0 %
Appearance ..... Clear colourless liquid
IR Spectrum ..... Passes test
Formaldehyde ..... Max. 0.1 %
Methanol ..... Max. 0.1 %
Water ..... Max. 0.05 %

Cat. No.	Pk	Pack type
87135.290	1 l	Glass bottle
87135.360	5 l	Plastic bottle

Diphenylamine

N-Phenylaniline , N-Phenylbenzeneamine

Danger
H301+H311+H331 H373 H410
P280 P273 P302+P352 P304+P340 P309+P310

CAS 122-39-4
Index 612-026-00-5
EINECS: 204-539-4
UN: 3077
ADR 9,III
Flash Pt: 153 °C (closed cup)

$(C_6H_5)_2NH$
M.W. 169.23 g/mol
Density: 1.165 g/cm³ (20 °C)
Boiling Pt: 302 °C (1013 hPa)
Melting Pt: 53 to 54 °C
Storage Temperature: Ambient temperature

Diphenylamine AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 98 %
Aniline ..... Max. 0.1 %
Insolubility in ethanol 96 % vol. ..... Max. 100 ppm
Melting point ..... 52.5 to 54.0 °C
Ignition residue (SO_4) ..... Max. 0.03 %

Cat. No.	Pk	Pack type
23543.182	100 g	Plastic bottle for solids

Diphenylamine in sulphuric acid (≥ 95%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 122-39-4
EINECS: 204-539-4
UN: 1830
ADR 8,II

$(C_6H_5)_2NH$
Storage Temperature: Ambient temperature

NEW Diphenylamine 1% in sulphuric acid 96% Reag. Ph. Eur. 1032102

Cat. No.	Pk	Pack type
87823.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Diphenylamine solution Reag. Ph. Eur.

NEW Diphenylamine solution Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85826.180	100 ml	Plastic bottle

Diphenylamine-4-sulphonic acid, barium salt

See Barium diphenylamine-4-sulphonate p.60

Diphenylcarbazide

See 1,5-Diphenylcarbazide p.154

1,5-Diphenylcarbazide

Diphenylcarbazide , sym. Diphenylcarbazide , 1,5-Diphenylcarbonohydrazide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 140-22-7
EINECS: 205-403-7

$C_{13}H_{14}N_4O$
M.W. 242.28 g/mol
Density: 1.31 g/cm³ (20 °C)
Boiling Pt: 454 °C (1013 hPa)
Melting Pt: 170 to 172 °C

1,5-Diphenylcarbazide analytical reagent

Assay	Min. 97.0 %
Suited for Cr^{6+} reagent	Passes test
Melting point	171 to 173 °C
Ignition residue (SO_4)	Max. 0.1 %
Insolubility in methanol	Max. 100 ppm

Cat. No.	Pk	Pack type
23550.120	10 g	Plastic bottle for solids
23550.153	50 g	Plastic bottle

1,5-Diphenylcarbonohydrazide

See 1,5-Diphenylcarbazide p.154

1,5-Diphenylthiocarbazone

See Dithizone p.156

Dipotassium dihydrogen ethylenediaminetetraacetate dihydrate

See EDTA dipotassium salt dihydrate p.160

Dipotassium disulphite

See di-Potassium disulphite p.376

Dipotassium hydrogenorthophosphate

See di-Potassium hydrogen phosphate p.379

Dipotassium peroxodisulphate

See Potassium peroxodisulphate p.387

(+)-Dipotassium L-tartrate hemihydrate

See di-Potassium L(+)-tartrate hemihydrate p.389

(R,R)-(+)-Dipotassium tartrate hemihydrate

See di-Potassium L(+)-tartrate hemihydrate p.389

N,N-Dipropyl-2,6-dinitro-4-trifluoromethylaniline

See Trifluralin p.515

DipSlide

See Microbiology

DIPSO

CAS 68399-80-4
EINECS: 269-992-2

$C_7H_{17}NO_6S$
Storage Temperature: Ambient temperature

VWR CHEMICALS DIPSO, ultrapure

Biological buffer useful for cell culture *in vitro*, enzyme assays and some electrophoretic applications at physiological pH.

Heavy Metals (as Pb)	0.0005 %
Melting Point	189 - 192 °C
Purity	98 %
Solubility (25%, Water)	PASS
Water (KF)	7 %

Cat. No.	Pk	Pack type
J591-100G	100 g	Plastic bottle for solids

Direct Red 28

See Congo Red p.121

Disilver sulphate

See Silver sulphate p.428

Disinfectant

Disinfectant deconex® 50 FF for surfaces and instruments

Cat. No.	Pk	Pack type
29883.290	1 l	Plastic bottle
29883.368	5 l	Plastic container

Disodium dihydrogen ethylenediaminetetraacetate dihydrate

See EDTA disodium salt dihydrate p.160

Disodium disulphite

See Sodium metabisulphite p.450

Disodium hydrogenorthophosphate

See di-Sodium hydrogen phosphate..... p.442

Disodium 2-[4-[(1-hydroxy-4-sulphonato-2-naphthyl)azo] phenyl]-6-methylbenzothiazole-7-sulphonate

See Thiazine red p.503

Disodium 2-(3-oxo-6-oxidoxanthen-9-yl)benzoate

See Fluorescein disodium salt..... p.186

Disodium pentacyanonitrosylferrate (III) dihydrate

See Sodium nitroprusside dihydrate..... p.452

Disodium peroxodisulphate

See Sodium peroxodisulphate..... p.454

(+)-Disodium L-tartrate dihydrate

See di-Sodium L(+)-tartrate dihydrate..... p.458

(R,R)-(+)-Disodium tartrate dihydrate

See di-Sodium L(+)-tartrate dihydrate..... p.458

Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)

See Congo Red..... p.121

Disodium 4,5-dihydroxynaphthalene-2,7-disulphonate dihydrate

See Chromotropic acid disodium salt dihydrate..... p.112

(+)-Disodium-L-tartrat dihydrate

See di-Sodium L(+)-tartrate dihydrate..... p.458

Disodium 2-(2,4,5,7-tetrabromo-6-oxido-3-oxoxanthen-9-yl) benzoate

See Eosin Y (yellowish)..... p.171

5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB)

3,3'-Dithiobis(6-nitrobenzoic acid) , Ellman's reagent , 2,2'-Dinitro-5,5'-dithiodibenzoic acid , DTNB

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311

CAS 69-78-3
EINECS: 200-714-4

$C_{14}H_8N_2O_8S_2$
M.W. 396.36 g/mol
Melting Pt: 240 to 244 °C
Storage Temperature: Ambient temperature

5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB)

A sensitive sulphydryl reagent.

Assay ..... Min. 98 %
Appearance ..... Yellow crystalline powder

Cat. No.	Pk	Pack type
422592J	5 g	Glass bottle
422593K	25 g	Glass bottle

3,3'-Dithiobis(6-nitrobenzoic acid)

See 5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB) p.155

1,4-Dithioerythritol

(R*,S*)-1,4-Dimercaptobutane-2,3-diol , erythro-1,4-Dimercaptobutane-2,3-diol , Dithioerythritol , DTE

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 6892-68-8
EINECS: 229-998-8

$C_4H_{10}O_2S_2$
M.W. 154.25 g/mol
Boiling Pt: 286 °C (1013 hPa)
Melting Pt: 82 to 83 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS 1,4-Dithioerythritol (DTE), ultrapure

Abs.@285 nm (0.02M, Water) 0.15
Melting Range ..... 81 - 85 °C
Purity ..... 99.0 %
Solubility (5%, Water) ..... PASS
Thin Layer Chromatography (TLC) ..... ONE SPOT

Cat. No.	Pk	Pack type
0425-5G	5 g	Glass bottle
0425-25G	25 g	Plastic bottle for solids

Dithiothreitol (DTT, Cleland's reagent)

(R*,R*)-1,4-Dimercapto-2,3-butandiol , DTT

Warning
H302 H319 H335 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 3483-12-3
EINECS: 222-468-7
Flash Pt: Min. 110 °C (open cup)

$C_4H_{10}O_2S_2$
M.W. 154.25 g/mol
Boiling Pt: Min. 125 °C (1013 hPa)
Melting Pt: 42 to 44 °C
Storage Temperature: 2 - 8°C

Dithiothreitol (DTT, Cleland's reagent) Electran® Molecular biology grade

Assay ..... Min. 99 %
Appearance ..... White crystalline powder
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
DTT (oxidised) ..... Max. 0.5 %
Melting point ..... 40 to 43 °C
pH (0.1 mol/l) ..... 4 to 6
Water ..... Max. 0.5 %
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.5
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.1
Absorbance (283 nm) (0.02 mol/l) ..... Max. 0.05
Heavy metals (as Pb) ..... Max. 0.001 %

Cat. No.	Pk	Pack type
443852A	5 g	Glass bottle
443853B	10 g	Glass bottle

Dithiothreitol (DTT, Cleland's reagent)

Assay ..... Min. 98 %
IR Spectrum ..... Passes test
Melting point ..... 40 to 43 °C
Heavy metals (as Pb) ..... Max. 10 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
441494N	5 g	Glass bottle
441496P	25 g	Plastic bottle for solids

Dithiothreitol (DTT, Cleland's reagent) for biotechnology

Abs.@260 nm (0.1M, Water) ..... REPORT
Abs.@280 nm (0.1M, Water) ..... REPORT
Abs.@283 nm (0.02M, Water) 0.05
DNase ..... NONE
IR ..... PASS
Loss on Drying ..... 0.5 %
Melting Point ..... 39 - 43 °C
Oxidized DTT ..... 0.5 %
Protease ..... NONE
Purity (-SH content) ..... 99.4 %
Reassay Date ..... REPORT
RNase ..... NONE
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
0281-5G	5 g	Glass bottle
0281-25G	25 g	Plastic bottle for solids

Dithiothreitol (DTT, Cleland's reagent), proteomics grade

Abs.@260 nm (0.1M, Water) ..... REPORT
Abs.@280 nm (0.1M, Water) ..... REPORT
Abs.@283 nm (0.02M, Water) 0.05
DNase ..... NONE
Electrophoresis ..... PASS
IR ..... PASS
Loss on Drying ..... 0.5 %
Melting Point ..... 39 - 43 °C
Oxidized DTT ..... 0.5 %
Protease ..... NONE
Purity (-SH content) ..... 99.4 %
RNase ..... NONE
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
M109-5G	5 g	Glass bottle
M109-25G	25 g	Plastic bottle for solids

DL-threo-Dithiothreitol

See Dithiothreitol (DTT, Cleland's reagent) p.155

Dithizone

1,5-Diphenylthiocarbazone

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 60-10-6
EINECS: 200-454-1
$C_6H_5NHNHCSN=NC_6H_5$
M.W. 256.33 g/mol
Boiling Pt: 406 °C (1013 hPa)
Melting Pt: 168 °C

Dithizone analytical reagent

Assay ..... Min. 98.0 %

Cat. No.	Pk	Pack type
23570.106	5 g	Plastic bottle for solids

Dithizone solution R2

NEW

Dithizone solution R2 Reag. Ph. Eur. 1033903

Cat. No.	Pk	Pack type
87827.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

DMF

See N,N-Dimethylformamide p.149

DMK

See Acetone p.6

DMK-D6

See Acetone-[D6] p.8

DMSO

See Dimethyl sulphoxide p.150

DMSO-D6

See Dimethyl sulphoxide-[D6] p.151

DNA Polymerase

see PCR

DNAse Test Agar

See Microbiology

dNTP mix

see PCR

Docusate sodium

Dioctyl sulphosuccinate sodium salt

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 577-11-7
EINECS: 209-406-4
$C_{20}H_{37}NaO_7S$
M.W. 444.62 g/mol
Density: ~ 1.1 g/cm³ (20 °C)
Boiling Pt: Min. 180 °C (1013 hPa)
Melting Pt: ~ 155 °C
Storage Temperature: Ambient temperature

Aerosol® OT

Anionic surfactant

Cat. No.	Pk	Pack type
560454R	500 g	Plastic bottle

Dodecamolybdophosphoric acid hydrate

Molybdophosphoric acid hydrate

Danger
H272 H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 51429-74-4
EINECS: 234-713-5
UN: 3260
ADR 8,III

$H_3[P(Mo_3O_{10})_4]\cdot nH_2O$
M.W. 2257.6 g/mol
Density: 1.62 g/cm³ (25 °C)
Melting Pt: 78 to 90 °C
Storage Temperature: Ambient temperature

Dodecamolybdophosphoric acid hydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Heavy metals (as Pb)	Max. 50 ppm	Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 50 ppm	NH_4 (Ammonium)	Max. 30 ppm
SO_4 (Sulphate)	Max. 100 ppm	Ca (Calcium)	Max. 100 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 20 ppm
Pb (Lead)	Max. 20 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
20616.184	100 g	Plastic bottle for solids

n-Dodecane

Danger
H304
P301+P310 P331

CAS 112-40-3
EINECS: 203-967-9
Flash Pt: 74 °C

$H_3C(CH_2)_{10}CH_3$
M.W. 170.34 g/mol
Density: 0.7487 g/cm³ (20 °C)
Boiling Pt: 216 °C (1013 hPa)
Melting Pt: -9.6 °C
Storage Temperature: Ambient temperature

n-Dodecane GPR RECTAPUR®

Assay	Min. 99 %
Density (20/4)	0.749 to 0.752
n 20/D	1.420 to 1.422

Cat. No.	Pk	Pack type
23586.293	1 l	Glass bottle

Dodecawolframophosphoric acid hydrate

See Phosphotungstic acid hydrate p.364

Dodecyl sulphate sodium salt

See Sodium dodecyl sulphate (SDS) p.439

Dodecyl sulphuric acid sodium salt

See Sodium dodecyl sulphate (SDS) p.439

n-Dodecyl-β-D-maltoside

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 69227-93-6

$C_{24}H_{46}O_{11}$
Storage Temperature: -20°C

VWR CHEMICALS n-Dodecyl-β-D-maltoside, high purity

Non ionic detergent.

Abs.@225 nm (1%, Water)	0.1
Abs.@260 nm (1%, Water)	0.06
Abs.@280 nm (1%, Water)	0.04
Abs.@340 nm (1%, Water)	0.02
Alpha (HPLC)	15 %
pH (1%, Water) @25C	5 - 8
Purity	99.0 %
Solubility (1%, Water)	PASS

Cat. No.	Pk	Pack type
J424-1G	1 g	Glass bottle

Dragendorff's reagent

Flash Pt: -4 °C
Density: 1.2 g/cm³ (20 °C)
Boiling Pt: 77 °C (1013 hPa)
Storage Temperature: Ambient temperature

Dragendorff's reagent for analysis of alkaloids

Made of potassium bismuth iodide

Identification	Passes test

Cat. No.	Pk	Pack type
30989.236	250 ml	Glass bottle

Dri-Decon

See Powder surfactant, dry p.134

Drug test kit

This kit provides a convenient means of screening suspect material for restricted drugs.
The scheme and reagents were developed at the Laboratory of the Government Chemist.
Each kit provides sufficient reagents for at least 200 tests.
Kit comprises:
20 (4 boxes of 5, 0,2 ml) ampoules of marquis reagent
1×10 ml cocaine reagent
1×10 ml barbiturate reagent
1×10 ml LSD reagent
1×20 ml cannabis reagent 1
1×10 ml cannabis reagent 2
1×5 g cannabis special solid reagent
1×20 g neutraliser
4 boxes of Whatman filter papers
1 microspatula
20 ampoule breakers
25 disposable spatulas
forceps
4 watch glasses
Instruction leaflet

Description	Pk	Cat. No.
BDH Drug test kit (cocaine, barbiturates, LSD, cannabis)	1	321481P

DTNB

See 5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB) p.155

DTT

See Dithiothreitol (DTT, Cleland's reagent)..... p.155

Dursban®

See Chlorpyrifos..... p.109

Dyes (Dry)

Dyes in solution

Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7429-91-6
EINECS: 231-073-9
UN: 3264
ADR 8,III

Dy
M.W. 162.5 g/mol
Density: 1.012 g/cm^3 (20 °C)
Storage Temperature: Ambient temperature

Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid (from Dy_2O_3) ARISTAR® standard for ICP

Dy_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455302L	100 ml	Plastic bottle
455304N	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW

Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86674.180	100 ml	Plastic bottle
86674.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

E-64 ((2S,3S)-(+)-trans-Epoxy succinyl-L-leucylamido-4-guanidino butane)

CAS 66701-25-5

$C_{15}H_{27}N_5O_5$
Storage Temperature: -20°C

E-64 ((2S,3S)-(+)-trans-Epoxy succinyl-L-leucylamido-4-guanidino butane), ultrapure

An irreversible inhibitor of cysteine proteases like papain, calpain, and cathepsin B, H, L and S. Also an effective inhibitor of collegenase.

Melting Point ..... REPORT
Nitrogen Content ..... REPORT
Purity (HPLC) ..... > 98 %
Specific Rotation ..... REPORT
TLC ..... ONE SPOT

Cat. No.	Pk	Pack type
J586-5MG	5 mg	Glass bottle

Easyfix cytological fixative

Danger
H226
P210 P243 P280
UN: 1170
ADR 3,III
Storage Temperature: Ambient temperature

NEW Easyfix cytological fixative Q PATH®

Easyfix ready to use fixative for cell samples. Pots can be used for storage and transport. Can be used as part of the Turbitec technique for cervical cancer analysis.

IVD

Cat. No.	Pk	Pack type
EAS0060CF59001	50 x 60 ml	Pot
EAS0020AF59001	100 x 20 ml	Pot

Each 20 ml Pot contains 10 ml. Each 60 ml Pot contains 15 ml.
IVD registered. Instructions for use on vwr.com- just search for the product

EBT

See Eriochrome Black T p.171

Edetic acid dipotassium salt dihydrate

See EDTA dipotassium salt dihydrate p.160

Edetic acid disodium salt dihydrate

See EDTA disodium salt dihydrate p.160

Edetic acid iron (III) monosodium salt

See EDTA ferric monosodium salt p.161

Edetic acid iron (III) sodium salt

See EDTA ferric monosodium salt p.161

Edetic acid tetrasodium salt

See EDTA tetrasodium salt p.162

Edetic acid

See EDTA (Ethylenediamine tetraacetic acid) p.159

EDTA (Ethylenediamine tetraacetic acid)

Kestranal® A , Idranal® II ,
Ethylenedinitrilotetra-acetic acid , Edetic acid

Warning
H319
P280 P305+P351+P338

CAS 60-00-4
Index 607-429-00-8
EINECS: 200-449-4
Flash Pt: Min. 100 °C

$C_{10}H_{16}N_2O_8$
M.W. 292.25 g/mol
Density: 0.86 g/cm³ (20 °C)
Boiling Pt: 614 °C (1013 hPa)
Melting Pt: 220 °C
Storage Temperature: Ambient temperature

EDTA (Ethylenediamine tetraacetic acid) analytical reagent

Assay ..... Min. 99.0 %
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.2 %
Water ..... Max. 0.2 %
Cl (Chloride) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 0.05 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20301.186	100 g	Plastic bottle for solids
20301.290	1 kg	Plastic bottle for solids

EDTA (Ethylenediamine tetraacetic acid) GPR RECTAPUR®

Assay ..... 98.0 to 100.5 %
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 0.5 %
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
280214S	500 g	Plastic bottle for solids
28021CA	25 kg	Bucket (Plastic)

EDTA (Ethylenediamine tetraacetic acid), ultrapure

Identification ..... PASS
Insolubles (5%, 1N NaOH) ..... PASS
Iron ..... < 0.005 %
Magnesium ..... < 0.0005 %
Nitrilotriacetic Acid ..... < 0.1 %
pH (5%, Water) @25 °C ..... 2.5 - 3.5
Protease ..... NONE
Purity ..... 99.5 %
Residue after Ignition ..... 0.2 %
RNase ..... NONE
DNase ..... NONE
Heavy Metals (as Pb) ..... < 0.001 %

Cat. No.	Pk	Pack type
0322-500G	500 g	Plastic bottle for solids
0322-1KG	1 kg	Plastic bottle for solids

EDTA (Ethylenediamine tetraacetic acid) TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20294.294	1 kg	Plastic bottle for solids

EDTA buffer solution

CAS 60-00-4
EINECS: 200-449-4
Storage Temperature: Ambient temperature

EDTA buffer solution pH 8.0 (0.5 mol/l) for biotechnology, sterile

Bioburden ..... PASS
Conductivity ..... REPORT
pH @25 °C ..... 7.9 - 8.1

Cat. No.	Pk	Pack type
E177-100ML	100 ml	Plastic bottle
E177-500ML	500 ml	Plastic bottle

EDTA buffer solution pH 8.0 (0.5 mol/l) for biotechnology, sterile

DNase ..... NONE
pH @25 °C ..... 7.9 - 8.1
RNase ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
E522-100ML	100 ml	Plastic bottle

EDTA dipotassium salt dihydrate

Dipotassium dihydrogen ethylenediaminetetraacetate dihydrate , Edetic acid dipotassium salt dihydrate , Ethylenediaminetetra-acetic acid dipotassium salt dihydrate , Ethylenedinitrilotetra-acetic acid dipotassium salt dihydrate

CAS 25102-12-9
EINECS: 217-895-0

$C_{10}H_{14}K_2N_2O_8.2H_2O$
M.W. 404.46 g/mol
Density: 1 g/cm³ (20 °C)
Melting Pt: 272 °C
Storage Temperature: Ambient temperature

EDTA dipotassium salt dihydrate analytical reagent

Assay ..... Min. 97.0 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 0.05 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20490.188	100 g	Plastic bottle for solids

EDTA disodium salt dihydrate

Kestranal® 2S 2 H2O , Kestranal® 2S dihydrate , Disodium dihydrogen ethylenediaminetetraacetate dihydrate , Edetic acid disodium salt dihydrate , Ethylenediaminetetra-acetic acid disodium salt dihydrate , Ethylenedinitrilotetra-acetic acid disodium salt dihydrate , Titriplex III

CAS 6381-92-6
EINECS: 205-358-3

$C_{10}H_{14}N_2Na_2O_8.2H_2O$
M.W. 372.24 g/mol
Melting Pt: 255 °C
Storage Temperature: Ambient temperature

EDTA disodium salt dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay ..... 99.0 to 101.0 %
Identification A ..... Passes test Ph.Eur.
Identification D ..... Passes test Ph.Eur.
Appearance of solution S ..... Passes test Ph.Eur.
Insolubility in water ..... Max. 50 ppm
Nitrilotriacetic acid ..... Max. 0.05 %
CN (Cyanide) ..... Max. 10 ppm
Cu (Copper) ..... Max. 1 ppm
Conforms to ACS ..... Passes test
pH (25°C; 5 %) ..... 4.0 to 5.5
Identification B ..... Passes test Ph.Eur.
Solution S ..... Passes test Ph.Eur.
Heavy metals (as Pb) ..... Max. 5 ppm
Loss on drying (150°C) ..... 9.0 to 10.0 %
Cl (Chloride) ..... Max. 40 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 5 ppm
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
20302.180	100 g	Plastic bottle for solids
20302.236	250 g	Plastic bottle for solids
20302.260	500 g	Plastic bottle for solids
20302.293	1 kg	Plastic bottle for solids
20302.464	25 kg	Bucket (Plastic)

EDTA disodium salt dihydrate Ph. Eur.

Appearance ..... White crystalline powder
Assay ..... 98.5 to 101.0 %
Identification A ..... Passes test
Identification B ..... Passes test
Identification D ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
pH (5 %) ..... 4.0 to 5.5
Impurity A ..... Max. 0.1 %
Fe (Iron) ..... Max. 80 ppm
Heavy metals (as Pb) ..... Max. 20 ppm
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
20309.296	1 kg	Plastic bottle for solids
20309.365	5 kg	Bucket (Plastic)

EDTA disodium salt dihydrate Gen-Apex® Molecular biology grade

Assay ..... Min. 99 %
Colouration (0.2 mol/l; water) ..... Max. 10 APHA
Heavy metals (as Pb) ..... Max. 5 ppm
Transmittance (260 nm) (0.2 mol/l) ..... Min. 50 %
Transmittance (280 nm) (0.2 mol/l) ..... Min. 90 %
Transmittance (320 nm) (0.2 mol/l) ..... Min. 95 %

Cat. No.	Pk	Pack type
33600.267	500 g	Plastic bottle for solids

EDTA disodium salt dihydrate Electran® Molecular biology grade

Assay ..... Min. 99 %
Appearance ..... White powder
Identity (IR) ..... Passes test
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.2
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.02
Loss on drying ..... 9 to 10 %
pH (5 %) ..... 4 to 5
Heavy metals (as Pb) ..... Max. 0.0005 %
SO_4 (Sulphate) ..... Max. 0.01 %
As (Arsenic) ..... Max. 0.0005 %
Cl (Chloride) ..... Max. 0.005 %
Cu (Copper) ..... Max. 0.001 %
Fe (Iron) ..... Max. 0.001 %
Pb (Lead) ..... Max. 0.001 %

Cat. No.	Pk	Pack type
443882G	100 g	Glass bottle for solids
443885J	1 kg	Glass bottle for solids

EDTA disodium salt dihydrate, proteomics grade

DNase ..... NONE
Heavy Metals (as Pb) ..... 0.005 %
Identification (FTIR) ..... PASS
Insolubles ..... 0.005 %
Iron ..... 0.01 %
Loss on Drying ..... 8.7 - 11.4 %
Nitrilotriacetic Acid ..... 0.1 %
pH (5%, Water) @25 °C ..... 4.0 - 6.0
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
M101-500G	500 g	Plastic bottle for solids
M101-1KG	1 kg	Plastic bottle for solids
M101-2.5KG	2,5 kg	Plastic bottle for solids

EDTA disodium salt dihydrate for biotechnology

DNase ..... NONE
Heavy Metals (as Pb) ..... 0.005 %
Identification (FTIR) ..... PASS
Insolubles ..... 0.005 %
Iron ..... 0.01 %
Loss on Drying ..... 8.7 - 11.4 %
Nitrilotriacetic Acid ..... 0.1 %
pH (5%, Water) @25 °C ..... 4.0 - 6.0
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0105-500G	500 g	Plastic bottle for solids
0105-1KG	1 kg	Plastic bottle for solids
0105-2.5KG	2,5 kg	Bucket (Plastic)
0105-12KG	12 kg	Bucket (Plastic)

EDTA disodium salt dihydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20296.260	500 g	Plastic bottle for solids
20296.291	1 kg	Plastic bottle for solids
20296.360	5 kg	Bucket (Plastic)
20296.462	25 kg	Bucket (Plastic)

EDTA disodium salt concentrated aqueous solution

CAS 139-33-3
EINECS: 205-358-3

$C_{10}H_{14}N_2Na_2O_8$
Storage Temperature: Ambient temperature

EDTA disodium salt 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.00995 to 0.01005 mol/l

Cat. No.	Pk	Pack type
32068.603	60 ml	Plastic ampoule

EDTA disodium salt in aqueous solution

CAS 139-33-3
EINECS: 205-358-3

$C_{10}H_{14}N_2Na_2O_8$
Storage Temperature: Ambient temperature

EDTA disodium salt 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l
Conforms to BDH 16015 ..... Passes test

Cat. No.	Pk	Pack type
28662.290	1 l	Plastic bottle
28662.370	5 l	Bag-in-box (Cubitainer)

EDTA disodium salt 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
30031.294	1 l	Plastic bottle
30031.408	10 l	Bag-in-box (Cubitainer)

EDTA disodium salt 0.0178 mol/l (N/28; 1 ml = 1°dH/100 ml H_2O) in aqueous solution AVS TITRINORM®, for hardness of water determinations

Titer (20°C; real value 0.2 % accuracy) ..... 0.017764 to 0.017840 mol/l

Cat. No.	Pk	Pack type
30029.412	10 l	Plastic drum

EDTA disodium salt 0.01 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
160226G	5 l	Plastic container

EDTA ferric monosodium salt

Iron (III) sodium ethylenediaminetetraacetate , Edetic acid iron (III) sodium salt , Ethylenediaminetetra-acetic acid iron (III) sodium salt , Ethylenedinitrilotetra-acetic acid iron (III) sodium salt , Edetic acid iron (III) monosodium salt , Ethylenediaminetetra-acetic acid iron (III) monosodium salt , Ethylenedinitrilotetra-acetic acid iron (III) monosodium salt , Iron (III) monosodium ethylenediaminetetraacetate , Sodium feredetate

Warning
H319 H335 H315 H411
P273

CAS 15708-41-5
EINECS: 239-802-2

$C_{10}H_{12}FeN_2NaO_8$
M.W. 367.05 g/mol
Melting Pt: 80 °C
Storage Temperature: Ambient temperature

EDTA ferric monosodium salt

Assay (EDTA) ..... 66.0 to 71.0 %
Assay (calculated as Fe(III)) ..... 12.5 to 14.0 %
Insolubility in water ..... Max. 0.1 %
Cl (Chloride) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 0.2 %
As (Arsenic) ..... Max. 3 ppm
Pb (Lead) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
280233V	250 g	Plastic bottle for solids

EDTA tetrasodium salt

Kestranal® 4S , Tetrasodium ethylenediaminetetraacetate , Edetic acid tetrasodium salt , Ethylenedinitrilotetra-acetic acid tetrasodium salt , Ethylenediaminetetraacetic acid tetrasodium salt

Danger
H302 H318
P280 P305+P351+P338 P309+P310

CAS 64-02-8
Index 607-428-00-2
EINECS: 200-573-9

$C_{10}H_{12}N_2Na_4O_8$
M.W. 380.17 g/mol
Density: 6.9 g/cm³ (20 °C)
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

EDTA tetrasodium salt TECHNICAL

Assay ..... Min. 83 %

Cat. No.	Pk	Pack type
20299.291	1 kg	Plastic bottle for solids

Egg albumin

See Albumin from chicken egg p.21

EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid)

Ethylenebis(oxyethylenenitrilo)tetra(acetic acid) , Titriplex® VI , Kestranal® FE PA , Ethylene glycol-O,O′-bis(2-aminoethyl)-N,N,N′,N′-tetraacetic acid , Idranal® VI

CAS 67-42-5
EINECS: 200-651-2

$C_{14}H_{24}N_2O_{10}$
M.W. 380.4 g/mol
Melting Pt: 240 to 244 °C
Storage Temperature: Ambient temperature

EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid) analytical reagent

Assay ..... Min. 98.0 %
Ignition residue (SO_4) ..... Max. 0.2 %
Water ..... Max. 2.0 %

Cat. No.	Pk	Pack type
20308.156	50 g	Plastic bottle for solids

EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid), ultrapure

DNase ..... NONE
Heavy Metals (as Pb) ..... 0.001 %
Identification (IR) ..... PASS
Loss on Drying ..... 1.0 %
Melting Range w/Decomposition ..... 238 °C
Protease ..... NONE
Purity ..... 97.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0732-10G	10 g	Plastic bottle for solids
0732-50G	50 g	Plastic bottle for solids
0732-100G	100 g	Plastic bottle for solids

Elastin stain acc. to Miller

Danger
H225
P210 P243 P280
UN: 1170
ADR 3,III
Storage Temperature: Ambient temperature

Elastin stain acc. to Miller

(formulation Raymond A. Lamb)

Appearance ..... Purple liquid
Suited for microscopical staining ..... Passes test
Absorbance (540 nm) ..... 0.525 to 0.800

Cat. No.	Pk	Pack type
351154S	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Electrode cleaning solution Pepsin/ Hydrochloric acid

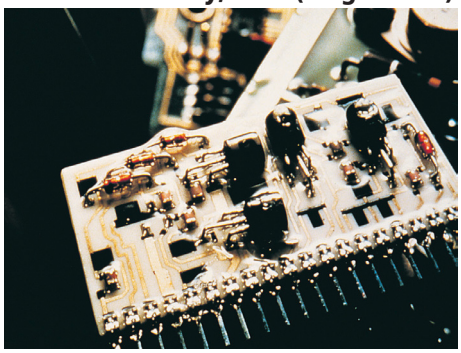
Danger
H334
P261 P285 P304+P341 P342+P311

Electrode cleaning solution Pepsin/ Hydrochloric acid for removal of proteins

Control ..... Passes test

Cat. No.	Pk	Pack type
83603.180	100 ml	Plastic bottle
83603.260	500 ml	Plastic bottle
83603.290	1 l	Plastic bottle

Electronic industry, BASF (reagents for)



BASF is a leading supplier of high quality chemicals for the electronics and semi-conductor industry and for the production of flatscreens. The typical etch and cleaning materials used in the semiconductorindustry are supplemented by other innovative products such as specific etch mixtures, strippers and many others. For full details of the specifications and hazards of the products listed below please visit the website or contact the local VWR sales office. For the full range of chemicals available for the electronics industry please ask for details.

Description	Page	Pk	Cat. No.
Acetone VLSI Selectipur® for the electronics industry	7, 163	2,5 l	51150924.
Acetone Selectipur® for the electronics industry	7, 163	146 kg	55954208.
Acetone Selectipur® for the electronics industry	7, 163	146 kg	55954791.
Ammonia 28% VLSI Selectipur® for the electronics industry	28, 163	2,5 l	51151931.
Ammonia 28% SLSI 100 Selectipur® for the electronics industry	28, 163	166 kg	56996823.
Ammonia 28% SLSI Selectipur® for the electronics industry	28, 163	2,5 l	51152938.
Etch Mixture PES 77-19-04 Selectipur® for the electronics industry	163, 172	2,5 l	51151348.
Etch Mixture PES 80-16-04 VLSI Selectipur® for the electronics industry	163, 172	2,5 l	51153415
Etch Mixture SF 70.5-1.5 VLSI Selectipur® for the electronics industry	163, 172	240 l	52111813.
Etch Mixture SF 83(65)-17 Selectipur® for the electronics industry	163, 172	240 kg	52135981.
Ethylene glycol VLSI Selectipur® for the electronics industry	163, 181	2,5 l	50906648.
Ethylene glycol Selectipur® for the electronics industry	163, 181	210 kg	52106725.
HMDS (1,1,1,3,3,3-Hexamethyldisilazane) VLSI Selectipur® for the electronics industry	163, 218	2,5 l	51152885.
Hydrochloric acid 37% VLSI Selectipur® for the electronics industry	163, 225	2,5 l	51153627.
Hydrochloric acid 36% SLSI Selectipur® for the electronics industry	163, 225	220 kg	57004879.
Hydrochloric acid 36% SLSI Selectipur® for the electronics industry	163, 225	230 kg	52976033.
Hydrochloric acid 36% Selectipur® for the electronics industry	163, 225	240 kg	57843234.
Hydrofluoric acid 50% VLSI Selectipur® for the electronics industry	163, 229	2,5 l	51151083.
Hydrofluoric acid 40% VLSI Selectipur® for the electronics industry	163, 231	2,5 l	51152779.
Hydrofluoric acid 5% VLSI Selectipur® for the electronics industry	163, 231	2,5 l	51151136.
Hydrogen peroxide 31% VLSI Selectipur® for the electronics industry	163, 231	2,5 l	55316830.
Hydrogen peroxide 31% SLSI Selectipur® for the electronics industry	163, 231	520 kg	56992000.
Losolin® IV Selectipur® for the electronics industry	163, 269	2,5 l	51153203.
N-Methyl-2-pyrrolidone (NMP) VLSI Selectipur® for the electronics industry	163, 293	2,5 l	51153097.
N-Methyl-2-pyrrolidone (NMP) for the electronics industry	163, 293	210 kg	52010265.
Nitric acid 69% VLSI Selectipur® for the electronics industry	163, 324	2,5 l	51153574.
Nitric acid 69% SLSI Selectipur® for the electronics industry	163, 324	260 kg	56999049.
Orthophosphoric acid 85% VLSI Selectipur® for the electronics industry	163, 333	2,5 l	51151401.
Potassium hydroxide 50% in aqueous solution Selectipur® for the electronics industry	163, 381	2,5 l	51151878.
Potassium hydroxide 50% in aqueous solution Selectipur® for the electronics industry	163, 381	300 kg	56999579.
Potassium hydroxide 30% in aqueous solution Selectipur® for the electronics industry	163, 381	2,5 l	51152355.
2-Propanol VLSI Selectipur® for the electronics industry	163, 393	2,5 l	51152037.
2-Propanol VLSI Selectipur® for the electronics industry	163, 393	20 kg	52107626.
2-Propanol VLSI Selectipur® for the electronics industry	163, 393	147 kg	56997512.
2-Propanol SLSI Selectipur® for the electronics industry	163, 394	2,5 l	51153150.
2-Propanol SLSI Selectipur® for the electronics industry	163, 394	147 kg	56998148.
2-Propanol SLSI Selectipur® for the electronics industry	163, 394	310 kg	57033128.
2-Propanol Selectipur® for the electronics industry	163, 394	150 kg	52106195.
Sioetch® MT 06/01 VLSI Selectipur® for the electronics industry	163, 429	2,5 l	51152832.
Sodium hydroxide, pellets Selectipur® for the electronics industry	163, 445	300 kg	52111071.
Spinetch® D VLSI Selectipur® for the electronics industry	163, 465	276 kg	56997565.
Spinetch® E Selectipur® for the electronics industry	163, 466	320 kg	56996346.
Sulphuric acid 96% VLSI Selectipur® for the electronics industry	163, 487	2,5 l	51151507.
Sulphuric acid 96% VLSI Selectipur® for the electronics industry	163, 487	340 kg	57384943.
(±)-Tetrahydrofurfuryl alcohol VLSI Selectipur® for the electronics industry	163, 501	12 kg	52110064.

Agarose, DNA grade (100 bp-23 kb), Electran®

DNA grade agarose is suitable for the majority of routine DNA or RNA separations, but is ideal for separation of DNA fragments larger than 1000 bp. For applications where a more stringent specification is required DNA pure grade agarose is recommended.

- DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose, DNA grade (100 bp-23 kb), Electran®	100 g	438792U	Plastic bottle
Agarose, DNA grade (100 bp-23 kb), Electran®	1 kg	438795A	Plastic bottle

Agarose, DNA pure grade (100 bp-23 kb), Electran®

Agarose DNA pure grade ensures reliable digestion and ligations from recovered DNA or RNA fragments from 100 bp to 25 kb. It is particularly suitable for both preparative and analytical separation procedures with nucleic acids ≥1000 base pairs, where a low melting point is not required. The agarose gives rise to firm gels even at low concentrations and gives low background after ethidium bromide staining.

- Best choice for DNA/RNA recovery and cloning applications
- DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose, DNA pure grade (100 bp-23 kb), Electran®	500 g	443666A	Plastic bottle

Agarose, wide range low melting (200 bp-25 kb), Electran®

Agarose, wide range low melting, is a low melting temperature agarose (≤65 °C). Confidently resolve fragments from 200 bp to 25 kb prior to PCR, cloning, digesting, or sequencing in the presence of re-melted agarose, without additional purification steps. Ideal resolution of DNA fragments >1000 bp.

Description	Pk	Cat. No.	Pack type
Agarose, wide range low melting (200 bp-25 kb), Electran®	25 g	444152G	Plastic bottle
Agarose, wide range low melting (200 bp-25 kb), Electran®	125 g	444153H	Plastic bottle

Agarose, high resolution low melting (50 bp-1 kb), Electran®

Agarose high resolution (HR) has low melting and gelling temperatures but differs from traditional low melting point molecular biology grade agaroses in the gel separation range. Using this agarose in electrophoresis allows fine and consistent resolution of nucleic acids below 1000 base pairs, which differ by only a few base pairs. The properties of Agarose HR allow consistent gel separations (analytical and preparative) and performance of *in-vitro* translation and transcription mapping as well as *in-vivo* ligation and transformation. For analytical gel separation of DNA/RNA below 1000 base pairs where a higher gel strength for ease of manipulation is required, we recommend the use of Agarose, high resolution, Electran® (436552V/436553W).

- DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose high resolution, low melting Electran®	25 g	437122H	Plastic bottle
Agarose high resolution, low melting Electran®	125 g	437123Y	Plastic bottle

Agarose, high resolution (50 bp-1 kb), Electran®

Agarose high resolution is optimised to give the exceptional separation on agarose of nucleic acid fragments below 1000 base pairs and differing by only a few base pairs. It retains the low gelling characteristics of the standard Agarose HR Plus with significantly increased gel strength at the expense of a higher melting temperature. This results in gels which are flexible and easy to handle. These properties make it the agarose of choice for analytical gel separations to check the quality and size of amplified fragments and for use in restriction mapping involving small digestion fragments.

- DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose, high resolution (50 bp-1 kb), Electran®	25 g	436552V	Plastic bottle
Agarose, high resolution (50 bp-1 kb), Electran®	100 g	436553W	Plastic bottle

Agarose 15, Electran®, for protein separation

Agarose 15 is ideal for serum protein electrophoresis and suitable for immunoelectrophoresis (IEP). May also be used for DNA electrophoresis. It has a medium range of electroendosmosis and high gel strength.

• DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose 15	25 g	443023R	Plastic bottle
Agarose 15	125 g	443024S	Plastic bottle
Agarose 15	500 g	443025T	Plastic bottle

Agarose 25, Electran®, for protein separation

Agarose 25 is suitable for use in a wide range of protein electrophoresis techniques and is particularly recommended for counter immunoelectrophoresis. In this application the higher electroendosmosis permits optimum positioning during antibody/antigen contact.

• DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose 25	25 g	442492P	Plastic bottle
Agarose 25	125 g	442494R	Plastic bottle

Agarose IEF, Electran®

Agarose IEF is highly purified agarose for isoelectric focusing (IEF). It is designed to be free of electroendosmosis, which makes it ideal for IEF applications with all pH ranges. Agarose has distinct advantages over polyacrylamide gels for IEF. Separation in agarose is rapid, and agarose gels can be used to separate proteins up to 2000 kDa.

• DNase and RNase free

Description	Pk	Cat. No.	Pack type
Agarose IEF, Electran®	25 g	443173H	Plastic bottle
Agarose IEF, Electran®	100 g	443174Y	Plastic bottle

Agarose I™

Agarose I™ is a standard melting/gelling agarose, suitable for routine nucleic acid analytical/preparative applications (250 bp - 22 kb). Agarose I™ has a low EEO for shorter electrophoretic runs without compromising resolution. Agarose I™ is excellent for blotting techniques and general manipulations.

• All-purpose, high purity agarose
• Exceptional band resolution and clarity
• Nuclease and protease-free
• Convenient tablet format available - no weighing required

Description	Pk	Cat. No.	Pack type
Agarose I™	25 g	0710-25G	Plastic bottle
Agarose I™	100 g	0710-100G	Plastic bottle
Agarose I™	250 g	0710-250G	Plastic bottle
Agarose I™	500 g	0710-500G	Plastic bottle
Agarose I™ tablets, 500 mg	100 Tab.	K857-100TABS	

Agarose II™

A low melting agarose that melts between 62 to 68 °C and remains liquid for several hours at 37 °C. Ideal for purification of macromolecules from agarose slices and for in-gel enzymatic manipulations.

Description	Pk	Cat. No.	Pack type
Agarose II™	25 g	0815-25G	Plastic bottle
Agarose II™	100 g	0815-100G	Plastic bottle
Agarose II™	250 g	0815-250G	Plastic bottle

Agarose LF™

Agarose LF™ (Large Fragment, 1 kb - 40 kb) is optimised for pulsed-field gel electrophoresis (PFGE) applications. The exceptionally low EEO and high gel strength of Agarose LF™ facilitates faster electrophoresis running times in low concentration gels. This agarose is best suited for resolving large (>20 kb) DNA fragments.

• Optimised for pulsed field gel electrophoresis (PFGE)
• Ideal for resolving large (>20 kb) DNA fragments
• Nuclease and protease-free

Description	Pk	Cat. No.	Pack type
Agarose LF™	25 g	X174-25G	Plastic bottle
Agarose LF™	100 g	X174-100G	Plastic bottle
Agarose LF™	250 g	X174-250G	Plastic bottle

Agarose SFR™

Agarose SFR™ (Super Fine Resolution) is a high resolution sieving agarose with excellent clarity. DNA bands differing in size by 2% can be resolved in the range of 200 bp to 1000 bp. This agarose is suitable for the analysis of AFLPs (Amplified Fragment Length Polymorphisms), STRs (Short Tandem Repeats) and tetranucleotide repeats. The low melting temperature of Agarose SFR™ makes it an excellent medium for analytical and preparative electrophoresis.

- Super fine resolution - resolve 238 bp and 242 bp bands
- Low melting point
- Nuclease and protease-free

Description	Pk	Cat. No.	Pack type
Agarose SFR™	25 g	J234-25G	Plastic bottle
Agarose SFR™	100 g	J234-100G	Plastic bottle
Agarose SFR™	250 g	J234-250G	Plastic bottle

Agarose 3:1 HRB™

Agarose 3:1 HRB™ (High Resolution Blend) is a mixture of agarose formulated to provide high resolution of small nucleic acids and PCR products. This product is specially designed for analysis of DNA fragments less than 1000 bp. Agarose 3:1 HRB™ displays precise banding patterns without smearing or high background fluorescence. The high gel strength allows for easy to handle gels that are optimal for blotting applications.

- High resolution blend
- Optimal for small nucleic acid fragments and PCR products
- Easy to handle due to high gel strength
- Nuclease and protease-free

Description	Pk	Cat. No.
Agarose 3:1 HRB™	25 g	E776-25G
Agarose 3:1 HRB™	100 g	E776-100G
Agarose 3:1 HRB™	250 g	E776-250G

This product is not available in all countries. Please check with your local VWR International office or supplier.

Agarose RA™

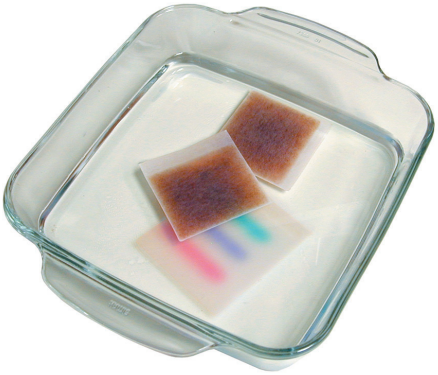
Agarose RA™ is a general application agarose that provides good resolution and is cost effective for high volume users. It was developed specifically for quick checks of PCR products, plasmids preps, screening and cloning. Agarose RA™ features high resolution, easy preparation and set up, a low EEO and excellent sensitivity with low background when stained. For recovery and blotting applications Agarose I™ is recommended.

- Ideal agarose for high throughput
- High resolution
- Easy preparation
- Excellent sensitivity

Description	Pk	Cat. No.	Pack type
Agarose RA™	25 g	N605-25G	Plastic bottle
Agarose RA™	100 g	N605-100G	Plastic bottle
Agarose RA™	250 g	N605-250G	Plastic bottle
Agarose RA™	500 g	N605-500G	Plastic bottle
Agarose RA™	1 kg	N605-1KG	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Destaining bags



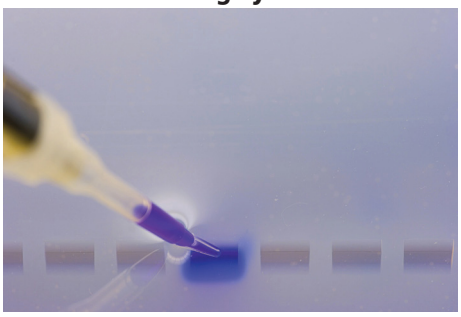
Destaining bags are designed to safely remove ethidium bromide from solution during overnight treatment. Each bag extracts up to 5 mg of ethidium bromide from solution, thus minimising the exposure of research personnel to this toxic material. The special absorbent mixture retains dye molecules in a convenient bag for removal and incineration.

- Removes up to 5 mg ethidium bromide per bag
- Minimises exposure to toxic materials
- Easiest ethidium bromide removal available

Description	Pk	Cat. No.
Destaining bags	25	E732-25

This product is not available in all countries. Please check with your local VWR International office or supplier.

Nucleic acid loading dye



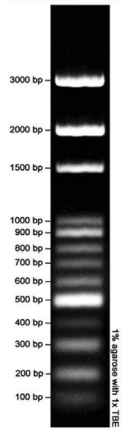
Designed to optimise loading nucleic acids in agarose gels, the loading dye imparts colour to the sample to facilitate the loading process and increase the density of the sample to ensure efficient sample distribution into each well. The dye migrates independently from the sample, allowing estimation of the migration of nucleic acids.

- Ready to use
- Eliminates exposure to irritating and harmful powdered dyes
- DNase, RNase and protease-free
- Functionally and analytically tested

Description	Pk	Cat. No.
Agarose gel loading dye, 6X, containing 3 tracking dyes and 15% Ficoll	5 ml	E190-5ML

This product is not available in all countries. Please check with your local VWR International office or supplier.

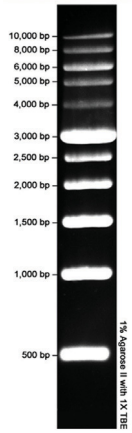
DNA ladder, 100 bp



Ladder with 13 fragments ranging from 100 to 3000 bp for easy band identification.

Description	Pk	Cat. No.
100 bp ladder, sufficient for 50 lanes	250 µl	K180-250UL

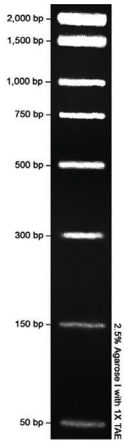
DNA ladder, 1 kb



Ladder with 11 fragments ranging from 500 to 10 000 bp for easy band identification.

Description	Pk	Cat. No.
1 kb ladder, sufficient for 100 lanes	500 µl	K181-500UL

PCR DNA Marker™



PCR DNA Marker™ offers 8 fragments ranging from 50 to 2000 bp. The marker contains high intensity reference bands that are ideal for quick sizing of PCR products and restriction digests. Simply mix 10 µl of PCR DNA Marker™ with required quantity of loading buffer and load into well. There is sufficient material for 100 assays.

- High resolution marker optimal for size estimation of PCR fragments

Description	Pk	Cat. No.
PCR DNA Marker™	1 KIT	E854-100RXN

This product is not available in all countries. Please check with your local VWR International office or supplier.

DNA MW marker, high range

DNA MW marker, high range offers 10 fragments ranging from 1503 to 48 502 bp. There is sufficient material for 75 - 150 assays.

- Optimal for evaluation fragments >10 kb
- Easy band identification

Description	Pk	Cat. No.
DNA MW marker, high range	150 µG	E255-150UG

This product is not available in all countries. Please check with your local VWR International office or supplier.

DNA MW marker, Low-Range I™

Low-Range I™ marker offers 14 fragments ranging from 224 to 14 140 bp. Combine 5 µl of marker with 5 µl of 2X loading buffer and load into well. There is sufficient material for 50 assays.

- Easy band identification

Description	Pk	Cat. No.
DNA MW marker, Low-Range I™	100 µG	E261-100UG

This product is not available in all countries. Please check with your local VWR International office or supplier.

DNA MW marker, wide range

The wide range marker has 24 fragments ranging from 100 to 48 500 bp. Superior for gene mapping and RFLP analysis. There is sufficient material for 100 - 200 assays.

Description	Pk	Cat. No.
DNA MW marker, wide range	200 µG	E273-200UG

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ellman's reagent

See 5,5'-Dithiobis(2-nitrobenzoic acid) (Ellmans reagent, DTNB) p.155

EMB Agar

See Microbiology

Emergency intervention kit

Kit for absorption of organics, aqueous solutions, alkalis and acids.
- Includes personal protective equipment like gloves, masks and goggles
- Includes removal equipment: Dust tray, brush and bags

The kit contains:
3× MERCK Chemizorb for absorption of organics and aqueous solutions 1.02051.0500
1× MERCK Chemizorb for absorption of alkalis (including a neutraliser and a pH indicator) 1.01596.1000
1× MERCK Chemizorb for absorption of acids 1.01595.2000
1× Pair barrier gloves with liner size 9 (112-1010)
1× Pair barrier gloves with liner size 7 (112-0946)
2× Mask 4279 3M ABEK (111-0044)
2× Goggles 3M 2790A (111-0265)
1× Dust tray ergonomic (129-0174)
1× Brush in PBT sterilisable (129-0175)
1× Disposal bag 483×610 mm (129-0021)

Pk	Cat. No.
1 SET	129-0199

α-Endosulfan

Endosulfan I

Danger
H300+H330 H312 H410
P284 P273 P302+P352 P304+P340 P309+P310

CAS 959-98-8
Index 602-052-00-5
UN: 2761
ADR 6.1,II

$C_9H_6Cl_6O_3S$
M.W. 406.93 g/mol
Boiling Pt: 450 °C (1013 hPa)
Melting Pt: 108 to 110 °C

α-Endosulfan, neat

Cat. No.	Pk	Pack type
124082E	10 mg	Glass ampoule

Endosulfan (α- and β-isomer)

1,2,3,4,7,7-Hexachloro-8,9,10-trinorborn-2-en-5,6-ylenedimethylene sulfite , 1,4,5,6,7,7-Hexachloro-8,9,10-trinorborn-5-en-2,3-ylenedimethylene sulfite

Danger
H300+H330 H312 H410
P284 P273 P302+P352 P304+P340 P309+P310

CAS 115-29-7
Index 602-052-00-5
EINECS: 204-079-4

$C_9H_6Cl_6O_3S$
M.W. 406.93 g/mol
Density: 1.745 g/cm³ (20 °C)
Boiling Pt: 106 °C (0.7 torr)
Melting Pt: 70 °C

Endosulfan (α- and β-isomer), neat

Cat. No.	Pk	Pack type
124122S	10 mg	Glass ampoule

Endosulfan I

See α-Endosulfan p.169

Endrin

1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4:5,8-dimethanonaphthalene

Danger
H300 H311 H410
P280 P273 P302+P352 P309+P310

CAS 72-20-8
Index 602-051-00-X
EINECS: 200-775-7

$C_{12}H_8Cl_6O$
M.W. 380.91 g/mol
Density: 1.7 g/cm³ (20 °C)
Boiling Pt: 416 °C (1013 hPa)
Melting Pt: 240 °C

Endrin, neat

Cat. No.	Pk	Pack type
124142W	10 mg	Glass ampoule

Powder Pillows, reagents for Hach® instruments

VWR Powder Pillow reagents are designed to be used on all the laboratory and portable Hach® instruments. No calibration data is necessary; they can be used with the Hach® instrument calibrations, handling is identical to the corresponding Hach® reagents. The pillows, individually sealed in aluminium foil packs, are unaffected by ambient conditions and contain pre-measured powder reagents for accuracy, convenience and great solubility.

- Accurate
- Fast and convenient - easier dissolution than tablets and long shelf life
- No calibration necessary
- Identical handling to the corresponding Hach® reagents

Description	Range	Pk	Cat. No.
Aluminium, RS 10 ml	0 - 0,22 mg/l Al	100 Tests	85600.620
Ammonia, RS 10 ml	0 - 0,5 mg/l NH_3- N	200 Tests	85617.620
Ammonia, TUBES HR	0 - 50 mg/l NH_3- N	50 Tests	85616.610
Ammonia, TUBES LR	0 - 2,50 mg/l NH_3- N	50 Tests	85615.610
Chlorine-free (DPD), PP 10 ml	0,01 - 2 mg/l Cl_2	100 Tests	85601.620
Chlorine-free (DPD), PP 10 ml	0,01 - 2 mg/l Cl_2	1000 Tests	85601.680
Chlorine-free (DPD), PP 25 ml	0 - 5,00 mg/l Cl_2	100 Tests	85602.620
Chlorine-free (DPD), PP 25 ml	0 - 5,00 mg/l Cl_2	1000 Tests	85602.680
Chlorine total (DPD), PP 10 ml	0,01 - 2 mg/l Cl_2	100 Tests	85603.620
Chlorine total (DPD), PP 10 ml	0,01 - 2 mg/l Cl_2	1000 Tests	85603.680
Chlorine total (DPD), PP 25 ml	0 - 5,00 mg/l Cl_2	100 Tests	85604.620
Chlorine total (DPD), PP 25 ml	0 - 5,00 mg/l Cl_2	1000 Tests	85604.680
Copper, PP 10 ml	0 - 5,00 mg/l Cu	100 Tests	85605.620
Copper, PP 10 ml	0 - 5,00 mg/l Cu	1000 Tests	85605.680
DEHA, RS	20 - 500 µg/l DEHA	100 Tests	85620.620
Iron, PP 10 ml	0 - 3 mg/l Fe	100 Tests	85607.620
Iron, PP 10 ml	0 - 3 mg/l Fe	1000 Tests	85607.680
Iron, TPTZ, PP 10 ml	0 - 1,8 mg/l Fe	100 Tests	85606.620
Manganese, RS 10 ml HR	0 - 20 mg/l Mn	100 Tests	85609.620
Manganese, RS 10 ml LR	0 - 0,7 mg/l Mn	100 Tests	85608.620
Molybdenum (DPD), PP 10 ml	0 - 35 mg/l Mo	100 Tests	85610.620
Molybdenum (DPD), PP 25 ml	0 - 35 mg/l Mo	100 Tests	85611.620
Nitrate TUBES, RS	0,2 - 30 mg/l NO_3- N	50 Tests	85612.620
Nitrite, PP 10 ml	0 - 0,3 mg/l NO_2- N	100 Tests	85614.620
Nitrite, PP 25 ml	0 - 0,3 mg/l NO_2- N	100 Tests	85613.620
Nitrite, PP 25 ml	0 - 0,3 mg/l NO_2- N	1000 Tests	85613.680
Nitrogen, RS	0 - 25 mg/l N	50 Tests	85618.610
Nitrogen, RS	10 - 150 mg/l N	50 Tests	85619.610
Phosphate (DPD), PP 10 ml	0 - 2,5 mg/l PO_4	100 Tests	85621.610
Phosphate (DPD), PP 10 ml	0 - 2,5 mg/l PO_4	1000 Tests	85621.680
Phosphate reactive, RS	0,06 - 5 mg/l PO_4	50 Tests	85622.610
Phosphate total, RS	0,06 - 3,5 mg/l PO_4-P 0,02 - 1,1 mg/l P	50 Tests	85623.610
Phosphate total / acid hydrolysable, RS	0,06 - 3,5 mg/l PO_4	50 Tests	85624.610
Silica, RS 10 ml HR	0 - 100 mg/l SiO_2	100 Tests	85626.620
Silica, RS 10 ml LR	0 - 1,6 mg/l SiO_2	100 Tests	85625.620
Silica, RS 25 ml HR	0 - 200 mg/l SiO_2	100 Tests	85627.620
Sulphate, PP 10 ml	1 - 70 mg/l SO_4	100 Tests	85629.620
Sulphate, PP 25 ml	0 - 70 mg/l SO_4	100 Tests	85628.620
Sulphate, PP 25 ml	0 - 70 mg/l SO_4	1000 Tests	85628.680

RS = Powder Pillow reagent set
PP = Powder Pillow
DEHA = N,N-Diethylhydroxylamine

Eosin-Methylene blue dye Wright

See Wright's Eosin-Methylene blue..... p.543

Eosin and methylene blue Wright

See Wright's Eosin-Methylene blue..... p.543

Eosin Y disodium salt

See Eosin Y (yellowish)..... p.171

Eosin Y (yellowish)

Tetrabromofluorescein disodium salt , Eosin Y , Disodium 2-(2,4,5,7-tetrabromo-6-oxido-3-oxoxanthen-9-yl)benzoate , Eosin yellowish , Eosin Y disodium salt , 2,4,5,7-Tetrabromofluorescein disodium salt , Solvent Red 43 , Eosin 225

Warning
H319
P280 P305+P351+P338

CAS 17372-87-1
EINECS: 241-409-6

$C_{20}H_6Br_4Na_2O_5$
M.W. 691.86 g/mol
Melting Pt: 295 to 296 °C
Storage Temperature: Ambient temperature

Eosin Y (yellowish) GURR® for microscopical staining

IVD

Dye content (gravimetric)..... Min 85 %
Suitability for microscopy..... Passes test
Loss on drying (110 °C)..... Max 8 %
Absorptivity (A 1%/1 cm, Lambda max., Water, pH 9)..... 1200 to 1400
Absorption max. Lambda (Water, pH 9)..... 515 to 518 nm
TLC test..... Passes test

Cat. No.	Pk	Pack type
341972Q	25 g	Glass bottle
341973R	100 g	Glass bottle
341975T	1 kg	Glass bottle

Technical data sheet and instructions available on vwr.com

Eosin Y aqueous solution

CAS 17372-87-1
EINECS: 241-409-6
Storage Temperature: Ambient temperature

NEW Eosin Y aqueous solution Q PATH® for microscopy

Ready to use Eosin solution for HES histological staining.

IVD

Cat. No.	Pk	Pack type
10047001.	6 x 450 ml	Pouch
10047101.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Eosin Y alcoholic

Danger
H226
P210 P243 P280

CAS 17372-87-1
EINECS: 241-409-6
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

NEW Eosin Y alcoholic Q PATH® for microscopy

Ready to use solution for HES histological staining.

IVD

Cat. No.	Pk	Pack type
00607121.	5 l	Bag-in-box (Cubitainer)
10047003.	6 x 450 ml	Pouch
10047103.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Eosin yellowish

See Eosin Y (yellowish)..... p.171

Erbium standard solution, 1,000 mg/l Er in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-52-0
EINECS: 231-160-1
UN: 3264
ADR 8,III

Er
M.W. 167.26 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Erbium standard solution, 1,000 mg/l Er in dil. nitric acid (from Er_2O_3) ARISTAR® standard for ICP

Er_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455324R	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Erbium standard solution, 1,000 mg/l Er in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86675.180	100 ml	Plastic bottle
86675.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Eriochrome Black T

Sodium 3-hydroxy-4-(2-hydroxy-1-naphthylazo)-7-nitro-1-naphthalenesulphonate , Solochrome Black T , EBT

Warning
H319 H411
P280 P273 P305+P351+P338

CAS 1787-61-7
EINECS: 217-250-3
UN: 3077
ADR 9,III

$C_{20}H_{12}N_3NaO_7S$
M.W. 461.39 g/mol
Storage Temperature: Ambient temperature

Eriochrome Black T TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26002.183	100 g	Glass bottle

Eriochrome Black T triturate 1% in sodium chloride

Warning
H319 H411
P280 P273 P305+P351+P338

CAS 1787-61-7
EINECS: 217-250-3
UN: 3077
ADR 9,III

$C_{20}H_{12}N_3NaO_7S$
M.W. 461.39 g/mol
Storage Temperature: Ambient temperature

Eriochrome Black T triturate 1% in sodium chloride Reag. Ph. Eur. 1056801

Cat. No.	Pk	Pack type
87873.180	100 g	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Etch Mixture PES 77-19-04

Phosphoric acid - acetic acid - nitric acid mixture (77:19:4)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3264
ADR 8,II
Storage Temperature: Ambient temperature

Etch Mixture PES 77-19-04 Selectipur® for the electronics industry

Phosphoric/Acetic/Nitric acid mixture

Cat. No.	Pk	Pack type
51151348.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Etch Mixture PES 80-16-04

Phosphoric acid - acetic acid - nitric acid mixture (80:16:4)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3264
ADR 8,II
Storage Temperature: Ambient temperature

Etch Mixture PES 80-16-04 VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153415	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Etch Mixture SF 70.5-1.5

Nitric acid - hydrofluoric acid - water mixture (70.5:1.5:28)

Storage Temperature: Ambient temperature

Etch Mixture SF 70.5-1.5 VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52111813.	240 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Etch Mixture SF 83(65)-17

Nitric acid - hydrofluoric acid - water mixture (54:17:29)

Etch Mixture SF 83(65)-17 Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52135981.	240 kg	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ethanal

See Acetaldehyde p.1

1,2-Ethanediamine

See Ethylenediamine p.182

Ethanedioic acid dihydrate

See Oxalic acid dihydrate p.334

1,2-Ethanediol

See Ethylene glycol p.181

Ethanenitrile

See Acetonitrile p.8

Ethanoic acid nitrile

See Acetonitrile p.8

Ethanoic acid

See Acetic acid p.2

Ethanol absolute

Danger
H225
P210 P243 P280

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II
Flash Pt: 12 °C

H_3CCH_2OH
M.W. 46.07 g/mol
Density: 0.7895 g/cm³ (20 °C)
Boiling Pt: 78.3 °C (1013 hPa)
Melting Pt: -117 °C
Storage Temperature: Ambient temperature

Ethanol absolute HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99,8 %
Acidity	Max. 0.0001 meq/g
Alkalinity	Max. 0.0003 meq/g
Non-volatile residue	Max. 10 ppm
Water	Max. 0.2 %
Transmittance (220 nm)	Min. 50 %
Transmittance (250 nm)	Min. 90 %
Transmittance (280 nm)	Min. 98 %

Cat. No.	Pk	Pack type
153385E	1 l	Glass bottle
153386F	2,5 l	Glass bottle

WARNING : This alcohol is regulated. Please contact VWR. For duty paid orders in the UK please add DP to the product code.

Ethanol absolute, anhydrous (max. 0.003% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.003 %

Cat. No.	Pk	Pack type
83672.230	250 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points
WARNING : This alcohol is regulated. Please contact VWR.
For duty paid orders in the UK please add DP to the product code.

Ethanol absolute AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.8 %	Assay (V/V)	Min. 99.85 %
Acidity	Max. 0.0002 meq/g	Alkalinity	Max. 0.0001 meq/g
Colouration	Max. 10 APHA	Distillation range	78.0 to 78.5 °C
n 20/D	1.360 to 1.362	Substances discoloured by H_2SO_4	Max. 20 APHA
Aldehydes (as CH_3CHO)	Max. 5 ppm	Benzene	Max. 2 ppm
Evaporation residue	Max. 5 ppm	Formaldehyde	Max. 1 ppm
Furaldehyde	Max. 1 ppm	Ketones (as CH_3COCH_3)	Max. 10 ppm
Substances reducing $KMnO_4$ (as O)	Max. 4 ppm	Methanol	Max. 100 ppm
Propan-2-ol	Max. 50 ppm	Total heavy alcohols	Max. 100 ppm
Water	Max. 0.1 %	Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.2 ppm	Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.01 ppm
Cu (Copper)	Max. 0.1 ppm	Fe (Iron)	Max. 0.05 ppm
Mg (Magnesium)	Max. 0.05 ppm	Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.05 ppm
Sn (Tin)	Max. 0.05 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
20821.296	1 l	Glass bottle
20821.310	1 l	Plastic bottle
20821.321	2,5 l	Glass bottle
20821.330	2,5 l	Plastic bottle
20821.365	5 l	Plastic bottle
20821.467	25 l	Metal drum

WARNING : This alcohol is regulated. Please contact VWR.
For duty paid orders in the UK please add DP to the product code.

Ethanol absolute Ph. Eur.

Assay (V/V)	Min. 99.5 %
Appearance	Clear colourless liquid
Identification A	Passes test
Identification B	Passes test
Appearance test	Passes test
Acidity or alkalinity	Passes test
Relative density	0.790 to 0.793
Absorbance (240 nm)	Max. 0.40
Absorbance (250-260 nm)	Max. 0.30
Absorbance (270-340 nm)	Max. 0.10
The absorption curve is smooth	Passes test
Methanol (V/V)	Max. 200 ppm
Acetaldehyde + acetal (as C_2H_4O) (V/V)	Max. 10 ppm
Benzene (V/V)	Max. 2 ppm
Impurities (as 4-methylpentan-2-ol)(V/V)	Max. 300 ppm
Disregard limit	Max. 9 ppm
Residue on evaporation (W/V)	Max. 25 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20816.298	1 l	Glass bottle
20816.367	5 l	Plastic bottle
20816.470	25 l	Plastic drum

WARNING : This alcohol is regulated. Please contact VWR.
For duty paid orders in the UK please add DP to the product code.

Ethanol absolute GPR RECTAPUR®

Assay	Min. 99.5 %
Assay (V/V)	Min. 99.5 %
IR Spectrum	Passes test
n 20/D	1.360 to 1.362
Evaporation residue	Max. 20 ppm

Cat. No.	Pk	Pack type
20820.464	25 l	Plastic drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol absolute Electran® Molecular biology grade

Assay	Min. 99.8 %
Appearance	Clear colourless liquid
DNases (exo- and endonucleases)	Not detected
RNases	Not detected
Proteases	Not detected
Acidity or alkalinity	Max. 0.0002 %
Heavy metals (as Pb)	Max. 0.0001 %
Non-volatile residue	Max. 0.001 %
Water	Max. 0.2 %

Cat. No.	Pk	Pack type
437433T	250 ml	Glass bottle

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol absolute TechniSolv®, pure

Assay (V/V)	Min. 99.5 %
Density (20/20)	0.788 to 0.794
Water	Max. 0.5 %

Cat. No.	Pk	Pack type
83813.360	5 l	Plastic container
83813.410	10 l	Plastic drum
83813.440	20 l	Plastic drum
83813.550	200 l	Metal drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 95-97% (v/v)

Danger
H225
P210 P243 P280

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
Melting Pt: -114 °C
Storage Temperature: Ambient temperature

Ethanol 95-97% (v/v) HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Assay (V/V)	96.0 to 96.3 %
Acidity	Max. 0.0002 meq/g
Evaporation residue	Max. 5 ppm
Transmittance (210 nm)	Min. 30 %
Transmittance (254 nm)	Min. 96 %
Transmittance (280 nm)	Min. 98 %

Cat. No.	Pk	Pack type
20825.290	1 l	Glass bottle
20825.324	2,5 l	Glass bottle

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 95-97% (v/v) SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Assay (V/V)	96.0 to 96.3 %
Evaporation residue	Max. 5 ppm
Water	5.4 to 7.5 %
Transmittance (210 nm)	Min. 35 %
Transmittance (220 nm)	Min. 55 %
Transmittance (230 nm)	Min. 72 %
Transmittance (240 nm)	Min. 90 %
Transmittance (250 nm)	Min. 95 %
Transmittance (from 270 nm)	Min. 98 %

Cat. No.	Pk	Pack type
20822.290	1 l	Glass bottle

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 95-97% (v/v) AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.8 %	Assay (V/V)	96.0 to 96.3 %
Acidity	Max. 0.001 meq/g	Alkalinity	Max. 0.0001 meq/g
Colouration	Max. 10 APHA	Distillation range	78.0 to 78.5 °C
Substances discoloured by H_2SO_4	Max. 20 APHA	Aldehydes (as CH_3CHO)	Max. 5 ppm
Benzene	Max. 5 ppm	Evaporation residue	Max. 5 ppm
Formaldehyde	Max. 1 ppm	Furaldehyde	Max. 1 ppm
Ketones (as CH_3COCH_3)	Max. 10 ppm	Substances reducing $KMnO_4$ (as O)	Max. 4 ppm
Methanol	Max. 0.02 %	Propan-2-ol	Max. 100 ppm
Total heavy alcohols	Max. 100 ppm	Water	5.4 to 7.5 %
Al (Aluminium)	Max. 0.1 ppm	Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.2 ppm	Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.01 ppm
Cu (Copper)	Max. 0.1 ppm	Fe (Iron)	Max. 0.05 ppm
Mg (Magnesium)	Max. 0.05 ppm	Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.05 ppm
Sn (Tin)	Max. 0.05 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
20823.290	1 l	Plastic bottle
20823.293	1 l	Glass bottle
20823.327	2,5 l	Glass bottle
20823.362	5 l	Plastic bottle
20823.460	25 l	Plastic drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 96% (v/v) Ph. Eur.

Assay (V/V)	95.1 to 96.9 %
Appearance	Clear colourless liquid
Identification B	Passes test
Appearance test	Passes test
Acidity or alkalinity	Passes test
Relative density	0.805 to 0.812
Absorbance (240 nm)	Max. 0.40
Absorbance (250-260 nm)	Max. 0.30
Absorbance (270-340 nm)	Max. 0.10
The absorption curve is smooth	Passes test
Methanol (V/V)	Max. 200 ppm
Acetaldehyde + acetal (as C_2H_4O) (V/V)	Max. 10 ppm
Benzene (V/V)	Max. 2 ppm
Impurities (as 4-methylpentan-2-ol)(V/V)	Max. 300 ppm
Disregard limit	Max. 9 ppm
Residue on evaporation (W/V)	Max. 25 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20905.296	1 l	Glass bottle
20905.320	2,5 l	Glass bottle
20905.365	5 l	Plastic bottle
20905.467	25 l	Plastic drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 95-97% (v/v) GPR RECTAPUR®

Assay (on anhydrous substance)	Min. 99.8 %
Assay (V/V)	96.0 to 96.3 %
Acidity	Max. 0.0002 meq/g
Aldehydes (as CH_3CHO)	Max. 15 ppm
Evaporation residue	Max. 20 ppm

Cat. No.	Pk	Pack type
20824.296	1 l	Plastic bottle
20824.321	2,5 l	Plastic bottle
20824.365	5 l	Plastic bottle
20824.467	25 l	Plastic drum
20824.558	200 l	Metal drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 95-97% (v/v) TechniSolv®, pure

Assay (V/V)	Min. 95 %
Density (20/20)	0.805 to 0.811

Cat. No.	Pk	Pack type
83804.360	5 l	Plastic container
83804.410	10 l	Plastic drum
83804.440	20 l	Plastic drum
83804.550	200 l	Metal drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 80-95%

Danger
H225
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,II
Flash Pt: 12

H_3CCH_2OH
Storage Temperature: Ambient temperature

Ethanol 90% (v/v) TechniSolv®, pure

Assay ..... Min. 89.5 %
Density (20/20) ..... 0.827 to 0.833

Cat. No.	Pk	Pack type
83811.360	5 l	Plastic container
83811.410	10 l	Plastic drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 50-80 %

Danger
H226
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,III
Flash Pt: 12

H_3CCH_2OH
Storage Temperature: Ambient temperature

Ethanol 77% (v/v)

Assay (V/V) ..... 76.0 to 78.0 %
Relative density ..... 0.865 to 0.870

Cat. No.	Pk	Pack type
5908.5000	5 l	Plastic container

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 70% (v/v) GPR RECTAPUR®

Assay (on anhydrous substance) ..... Min. 99 %
Assay (V/V) ..... 69 to 71 %
Evaporation residue ..... Max. 50 ppm

Cat. No.	Pk	Pack type
98193.418	10 l	Plastic drum

WARNING : this alcohol is regulated. Call us.
For duty paid orders in the UK please add DP to the product code.

Ethanol 70% (v/v) TechniSolv®, pure

Assay (V/V) ..... Min. 69.5 %
Density (20/20) ..... 0.884 to 0.890

Cat. No.	Pk	Pack type
83801.290	1 l	Plastic bottle
83801.360	5 l	Plastic container
83801.410	10 l	Plastic drum

WARNING : this alcohol is regulated. Call us. For duty paid orders in the UK please add DP to the product code.

Ethanol 70% (v/v)

Filtered 0.2 µm filter

Assay (Ethanol) (V/V) ..... 69 to 71 %
Appearance ..... Clear colourless liquid
Relative density ..... 0.885 to 0.890

Cat. No.	Pk	Pack type
93003.1006	6 l	Plastic bottle

WARNING : this alcohol is regulated. Call us.

Ethanol 50%

Danger
H226
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,III
Storage Temperature: Ambient temperature

NEW Ethanol 50% fixative Q PATH® for microscopy

Ethanol ready to use fixative for cells. Pots can be used for storage and transport

IVD

Cat. No.	Pk	Pack type
ALC0150AF59001	32 x 150 ml	Pot
ALC0060AF59001	50 x 60 ml	Pot

Each 60 ml Pot contains 20 ml. Each 150 ml Pot contains 40 ml.
IVD registered. Instructions for use on vwr.com- just search for the product

Ethanol euro denatured 99%

Danger
H225
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
Storage Temperature: Ambient temperature

NEW Ethanol euro denatured 99% GPR RECTAPUR®

Assay (V/V) ..... Min. 91.5 %
Denatonium benzoate (11.4 -13.4 ppm) ..... Passes test
Methyl ethyl ketone (V/V) ..... 2.55 to 3.11 %
2-Propanol (V/V) ..... 2.55 to 3.11 %

Cat. No.	Pk	Pack type
84835.290	1 l	Plastic bottle
84835.360	5 l	Plastic bottle
84835.410	10 l	Plastic bottle
84835.460	25 l	Plastic drum
84835.550	200 l	Plastic drum

NEW Ethanol euro denatured 99% TechniSolv®

Assay (V/V) ..... Min. 91.5 %
Denatonium benzoate (11.4 -13.4 ppm) ..... Passes test
Methyl ethyl ketone (V/V) ..... 2.55 to 3.11 %
2-Propanol (V/V) ..... 2.55 to 3.11 %

Cat. No.	Pk	Pack type
84857.360	5 l	Plastic bottle
84857.440	20 l	Plastic drum

Ethanol 95-97% (v/v) (denatured with 2% MEK)

Danger
H225
P210 P243 P280

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
M.W. 46.07 g/mol
Storage Temperature: Ambient temperature

NEW

Ethanol 95-97% (v/v) (denatured with 2% MEK)

Assay (Ethanol)..... 96.0 to 97.5
Methyl ethyl ketone ..... 2.5 to 4.0 %
Water ..... 5 to 6 %

Cat. No.	Pk	Pack type
9950.9025	25 l	Plastic drum

Ethanol euro denatured 96%

Danger
H225
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
Density: 0.8 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

NEW

Ethanol euro denatured 96% GPR RECTAPUR®

Assay (V/V)..... Min. 90.0 %
Denatonium benzoate (11.8 -13.1 ppm)..... Passes test
Methyl ethyl ketone (V/V) ..... 2.45 to 2.99 %
2-Propanol (V/V)..... 2.45 to 2.99 %

Cat. No.	Pk	Pack type
84836.290	1 l	Plastic bottle
84836.360	5 l	Plastic bottle
84836.410	10 l	Plastic bottle
84836.460	25 l	Plastic drum
84836.550	200 l	Plastic drum

NEW

Ethanol euro denatured 96% TechniSolv®

Assay (V/V)..... Min. 90 %
Denatonium benzoate (11.8 -13.1 ppm)..... Passes test
Methyl ethyl ketone (V/V) ..... 2.45 to 2.99 %
2-Propanol (V/V)..... 2.45 to 2.99 %

Cat. No.	Pk	Pack type
84860.360	5 l	Plastic bottle
84860.440	20 l	Plastic drum

Ethanol euro denatured 80%

Danger
H225
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
Storage Temperature: Ambient temperature

NEW

Ethanol euro denatured 80% TechniSolv®

Assay (V/V)..... Min. 75.9 %
Denatonium benzoate (8.8 - 9.8 ppm) ..... Passes test
Methyl ethyl ketone (V/V) ..... 2.06 to 2.52 %
2-Propanol (V/V)..... 2.06 to 2.52 %

Cat. No.	Pk	Pack type
84856.440	20 l	Plastic drum

Ethanol 70% (v/v) (denatured)

Danger
H226
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,III
Flash Pt: 20

H_3CCH_2OH
Storage Temperature: Ambient temperature

Ethanol 70% (v/v) (denatured) TechniSolv®, pure

Denaturing agent : Camphor + Tartrazine

Assay..... Min. 67 %
Density (20/20) ..... 0.884 to 0.89 g/cm3

Cat. No.	Pk	Pack type
83805.360	5 l	Plastic bottle
83805.440	20 l	Plastic drum

This product is not available in all countries. Please check with your local VWR I office or supplier.

Ethanol euro denatured 70%

Danger
H225
P210 P243 P280

CAS 64-17-5
EINECS: 200-578-6
UN: 1170
ADR 3,II

H_3CCH_2OH
Storage Temperature: Ambient temperature

NEW

Ethanol euro denatured 70% TechniSolv®

Assay (V/V)..... Min. 66.9 %
Denatonium benzoate (7.5 - 8.4 ppm) ..... Passes test
Methyl ethyl ketone (V/V) ..... 1.81 to 2.22 %
2-Propanol (V/V)..... 1.81 to 2.22 %

Cat. No.	Pk	Pack type
84858.360	5 l	Plastic bottle
84858.440	20 l	Plastic drum

Ethanol denatured with methanol

Methylated spirit 99% (74 O.P.), IMS (74 O.P.)

Danger
H225 H302
P210 P243 P280 P301+P312

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II
Flash Pt: 12 °C

H_3CCH_2OH
M.W. 46.07 g/mol
Storage Temperature: Ambient temperature

Ethanol 99% denatured with methanol (industrial methylated spirit) GPR RECTAPUR®

Alcohol ..... 99.1 to 99.5 %
Density (20/4) ..... 0.792 to 0.794 g/cm3
Colour number (Hazen) ..... Max. 20 APHA

Cat. No.	Pk	Pack type
23684.329	2,5 l	Plastic bottle
23684.360	5 l	Plastic bottle
23684.444	25 l	Metal drum
23684.469	25 l	Plastic drum

This product is not available in all countries. Please check with your local VWR I office or supplier.

Ethanol denatured with methanol, min. 98% (v/v)

Industrial methylated spirit

Danger
H225 H302
P210 P243 P280 P301+P312

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II
Flash Pt: 12 °C

H_3CCH_2OH
M.W. 46.07 g/mol
Storage Temperature: Ambient temperature

Ethanol 98% denatured with methanol (industrial methylated spirit) GPR RECTAPUR®

Density (20/4) ..... 0.79 to 0.794
Free acidity ..... Max. 0.001 meq/g
Methanol ..... Max. 4 %

Cat. No.	Pk	Pack type
302444E	2,5 l	Glass bottle
30244DN	25 l	Plastic drum
30244FP	205 l	Metal drum with liner

This product is not available in all countries. Please check with your local VWR I office or supplier.

Ethanol 95% denatured with methanol (industrial methylated spirit) GPR RECTAPUR®

Alcohol ..... 94.70 to 95.10 %
Density (20/4) ..... 0.811 to 0.813
Colour number (Hazen) ..... Max. 20 APHA

Cat. No.	Pk	Pack type
23685.325	2,5 l	Plastic bottle
23685.465	25 l	Metal drum

This product is not available in all countries. Please check with your local VWR I office or supplier.

Ethanol denatured with methanol, min. 90% (v/v)

Industrial methylated spirit, min. 90%

Danger
H225 H302
P210 P243 P280 P301+P312

CAS 64-17-5
Index 603-002-00-5
EINECS: 200-578-6
UN: 1170
ADR 3,II
Flash Pt: 12 °C

H_3CCH_2OH
M.W. 46.07 g/mol
Boiling Pt: 78.3 °C (1013 hPa)
Storage Temperature: Ambient temperature

Ethanol 90% denatured with methanol (industrial methylated spirit) GPR RECTAPUR®

Density (20/4) ..... 0.811 to 0.816
Free acidity ..... Max. 0.001 meq/g

Cat. No.	Pk	Pack type
302434C	2,5 l	Glass bottle
30243EM	25 l	Metal drum

This product is not available in all countries. Please check with your local VWR I office or supplier.

Ethanolamine

2-Aminoethanol , Monoethanolamine

Danger
H302+H312+H332 H314 H335
P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 141-43-5
Index 603-030-00-8
EINECS: 205-483-3
UN: 2491
ADR 8,III
Flash Pt: 93 °C

$NH_2CH_2CH_2OH$
M.W. 61.08 g/mol
Density: 1.0164 g/cm³ (20 °C)
Boiling Pt: 171 °C (1013 hPa)
Melting Pt: 10.5 °C
Storage Temperature: Ambient temperature

Ethanolamine GPR RECTAPUR® for scintillation

Assay ..... Min. 99 %
Density (20/4) ..... 1.010 to 1.020
Distillation range ..... 170 to 172 °C
Solidification point ..... 9.0 to 10.5 °C
Water ..... Max. 1 %

Cat. No.	Pk	Pack type
23782.291	1 l	Glass bottle

Ether

See Diethyl ether p.145

Ethidium bromide

3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide

Danger
H341 H330 H302
P201 P281 P284 P304+P340 P309+P311

CAS 1239-45-8
Index 612-278-00-6
EINECS: 214-984-6
UN: 2811
ADR 6.1,I
Flash Pt: Max. 100 °C

$C_{21}H_{20}BrN_3$
M.W. 394.31 g/mol
Density: 1.01 g/cm³ (20 °C)
Boiling Pt: 72 °C (0.1 torr)
Melting Pt: 261 to 264 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Ethidium bromide for biotechnology

DNase ..... NONE
Identification ..... PASS
Loss on Drying ..... 5.0 %
Protease ..... NONE
Purity (Dry Basis) ..... 98.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0492-5G	5 g	Glass bottle
0492-25G	25 g	Plastic bottle for solids

Ethidium bromide (1 - 10 mg/ml) in aqueous solution

Danger
H341 H330 H302
P201 P281 P284 P304+P340 P309+P311

CAS 1239-45-8
EINECS: 214-984-6
Flash Pt: Min. 100

$C_{21}H_{20}BrN_3$

Ethidium bromide in aqueous solution (10 mg/ml) Electran® for electrophoresis

Extinction of solution (E 1%/1cm, Lambda 481 nm) ..... 140 to 160

Cat. No.	Pk	Pack type
443922U	10 ml	Glass bottle

VWR CHEMICALS Ethidium bromide in aqueous solution (10 mg/ml) for biotechnology

DNase ..... NONE
Moisture ..... 8.0 %
Purity (Dry Basis) ..... 98.0 %
RNase ..... NONE

Cat. No.	Pk	Pack type
X328-10ML	10 ml	Plastic bottle

Ethidium bromide (< 1 mg/ml) in aqueous solution

CAS 1239-45-8
EINECS: 214-984-6

$C_{21}H_{20}BrN_3$

VWR CHEMICALS Ethidium bromide in aqueous solution (0.625 mg/ml) for biotechnology

Ethidium bromide provided in 0.625 mg/ml dropper bottle. One drop diluted into 50 ml of molten agarose or buffer yields a final concentration of 0.5 µg/ml.

Abs.@ Lambda Max ..... 0.68 - 0.74
DNase ..... NONE
Lambda Max (8 ml/100 ml Water) ..... 478 - 482 nm
RNase ..... NONE

Cat. No.	Pk	Pack type
E406-5ML	5 ml	Plastic bottle
E406-15ML	15 ml	Plastic bottle

Ethoxyethane

See Diethyl ether p.145

2-Ethoxyethanol

Ethylene glycol monoethyl ether

Danger
H226 H360FD H302+H312+H332
P201 P210 P243 P281 P302+P352 P304+P340
P309+P311

CAS 110-80-5
Index 603-012-00-X
EINECS: 203-804-1
UN: 1171
ADR 3,III
Flash Pt: 48.9 °C (closed cup)

Restricted to professional users.

$C_2H_5OCH_2CH_2OH$
M.W. 90.12 g/mol
Density: 0.932 g/cm³ (20 °C)
Boiling Pt: 135 °C (1013 hPa)
Melting Pt: -70 °C
Storage Temperature: Ambient temperature

2-Ethoxyethanol AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Acidity ..... Max. 0.0008 meq/g
Density (20/4) ..... 0.929 to 0.930
Peroxides (as H_2O_2) ..... Max. 0.02 %
Al (Aluminium) ..... Max. 10 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
K (Potassium) ..... Max. 1 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Ni (Nickel) ..... Max. 0.05 ppm
Sr (Strontium) ..... Max. 0.02 ppm
IR Spectrum ..... Passes test
Colouration ..... Max. 20 APHA
Evaporation residue ..... Max. 100 ppm
Water ..... Max. 0.1 %
Ba (Barium) ..... Max. 0.02 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 5 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Na (Sodium) ..... Max. 1 ppm
Pb (Lead) ..... Max. 0.5 ppm
Zn (Zinc) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
103426R	2,5 l	Glass bottle

2-Ethoxyethanol TECHNICAL

Assay ..... Min. 99 %
n 20/D ..... 1.405 to 1.407

Cat. No.	Pk	Pack type
24043.294	1 l	Glass bottle

(±)-2-Ethyl-1-hexanol

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 104-76-7
EINECS: 203-234-3
Flash Pt: 81 °C

$CH_3(CH_2)_3CH(C_2H_5)CH_2OH$
M.W. 130.23 g/mol
Density: 0.83 g/cm³ (20 °C)
Boiling Pt: 183 °C (1013 hPa)
Melting Pt: -76 °C
Storage Temperature: Ambient temperature

(±)-2-Ethyl-1-hexanol TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20849.361	5 l	Metal can
20849.463	25 l	Metal drum

Ethyl acetate

Acetic acid ethyl ester

Danger
H225 H319 H336
EUH066
P210 P280 P305+P351+P338

CAS 141-78-6
Index 607-022-00-5
EINECS: 205-500-4
UN: 1173
ADR 3,II
Flash Pt: -4 °C

$CH_3COOC_2H_5$
M.W. 88.11 g/mol
Density: 0.902 g/cm³ (20 °C)
Boiling Pt: 77.1 °C (1013 hPa)
Melting Pt: -83 °C
Storage Temperature: Ambient temperature

Ethyl acetate HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.8 %
Water ..... Max. 0.1 %
Non-volatile residue ..... Max. 0.0005 %
Acidity ..... Max. 0.0005 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Transmittance (260 nm) ..... Min. 70 %
Transmittance (270 nm) ..... Min. 90 %
Transmittance (300 nm) ..... Min. 98 %
Conforms to BDH 15248 ..... Passes test

Cat. No.	Pk	Pack type
83621.290	1 l	Glass bottle
83621.320	2,5 l	Glass bottle

NEW Ethyl acetate HiPerSolv CHROMANORM® for preparative HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 0.02 %

Cat. No.	Pk	Pack type
84532.460	25 l	Metal drum
84532.550	200 l	Metal drum

NEW Ethyl acetate SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.02 %
Transmittance (260 nm) ..... Min. 75 %
Transmittance (270 nm) ..... Min. 95 %
Transmittance (280 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
84704.290	1 l	Glass bottle
84704.320	2,5 l	Glass bottle

Ethyl acetate, anhydrous (max. 0.005% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.005 %

Cat. No.	Pk	Pack type
83681.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

Ethyl acetate PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.8 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue (100°C) ..... Max. 0.0005 %
Water ..... Max. 0.05 %
Organic residue (as Octanol) (GC/FID) ..... Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83963.320	2,5 l	Glass bottle

Ethyl acetate PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.7 %
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 0.03 %
Pesticide analysis (Ethylparathion/PND) ..... Max. 10 ng/l
Pesticide analysis (Lindane/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83660.290	1 l	Glass bottle
83660.320	2,5 l	Glass bottle

NEW Ethyl acetate for peptide synthesis

Assay (calculated on anhydrous)	Min. 99.9 %
Appearance	Clear colourless liquid
Acidity	Max. 0.003 %
Residue on evaporation	Max. 0.0003 %
Water	Max. 0.02 %
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
84579.320	2,5 l	Glass bottle

Ethyl acetate, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Acidity	Max. 0.005 %
Colour value	Max. 10 APHA	Assay	Min. 99.8 %
Residue on evaporation	Max. 0.001 %	Water (K.F.)	Max. 0.01 %
Formaldehyde-sulphuric colouration	Max. 60 APHA	Ethanol	Max. 0.1 %
Methanol	Max. 0.1 %	Methyl acetate	Max. 0.1 %
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
23881.293	1 l	Glass bottle

Ethyl acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. 1035301 analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %	IR Spectrum	Passes test
Organic impurities	Passes test	Acidity	Max. 0.0006 meq/g
Colouration	Max. 10 APHA	Density (20/4)	0.899 to 0.901
Distillation range	76.5 to 77.5 °C	Substances discoloured by H_2SO_4	Max. 60 APHA
Ethanol	Max. 0.1 %	Evaporation residue	Max. 10 ppm
Methanol	Max. 0.1 %	Methyl acetate	Max. 0.1 %
iso-Propyl acetate	Max. 0.06 %	n-Propyl acetate	Max. 0.5 %
Water	Max. 0.03 %	Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.02 ppm	Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.05 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm	Conforms to BDH 10108	Passes test

Cat. No.	Pk	Pack type
23882.296	1 l	Glass bottle
23882.321	2,5 l	Glass bottle
23882.330	2,5 l	Plastic bottle
23882.467	25 l	Metal drum

Ethyl acetate Reag. Ph. Eur. 1035301

Cat. No.	Pk	Pack type
87829.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ethyl acetate GPR RECTAPUR®

Assay	Min. 99.0 %
IR Spectrum	Passes test
Acidity	Max. 0.008 meq/g
Density (20/4)	0.899 to 0.901
Distillation range	75.5 to 77.5 °C
n 20/D	1.371 to 1.373
Substances discoloured by H_2SO_4	Max. 60 APHA
Ethanol	Max. 0.5 %
Evaporation residue	Max. 10 ppm
Heavy metals (as Pb)	Max. 2 ppm
Water	Max. 0.05 %
Conforms to BDH 28311	Passes test

Cat. No.	Pk	Pack type
23880.290	1 l	Glass bottle
23880.324	2,5 l	Plastic bottle
23880.368	5 l	Plastic container
23880.461	25 l	Plastic drum
23880.552	200 l	Metal drum

Ethyl acetate TECHNICAL

Assay	Min. 99 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test

Cat. No.	Pk	Pack type
23879.295	1 l	Plastic bottle
23879.364	5 l	Plastic container
23879.466	25 l	Plastic drum
23879.557	200 l	Metal drum

Ethyl alcohol

See Ethanol absolute p.172

Ethyl 4-aminobenzoate

See Benzocaine (Ethyl 4-aminobenzoate) p.63

Ethyl carbinol

See 1-Propanol p.392

(±)-Ethyl methyl carbinol

See (±)-2-Butanol p.87

Ethyl methyl ketone

See Methyl ethyl ketone p.290

N-Ethyldiisopropylamine

N,N-Diisopropylethylamine

Danger
H225 H301 H314 H412
P210 P243 P280 P273 P301+P330+P331 P304+P340
P309+P310

CAS 7087-68-5
EINECS: 230-392-0
UN: 2733
ADR 3,II
Flash Pt: 6 °C

$[(CH_3)_2CH]_2NC_2H_5$
M.W. 129.25 g/mol
Density: 0.76 g/cm³ (20 °C)
Boiling Pt: 127 °C (1013 hPa)
Melting Pt: -50 °C
Storage Temperature: Ambient temperature

NEW N-Ethyldiisopropylamine for peptide synthesis

Assay (calculated on anhydrous) ..... Min. 99.5 %
Appearance ..... Clear liquid
Colour value ..... Max. 25 APHA
Identity (IR) ..... Passes test
Residue on evaporation ..... Max. 0.001 %
Water ..... Max. 0.03 %

Cat. No.	Pk	Pack type
84574.290	1 l	Glass bottle

Ethylene chloride

See 1,2-Dichloroethane p.141

Ethylene dichloride

See 1,2-Dichloroethane p.141

Ethylene glycol

Glycol , 1,2-Ethanediol , 1,2-Dihydroxy ethane

Warning
H302
P301+P312

CAS 107-21-1
Index 603-027-00-1
EINECS: 203-473-3
Flash Pt: 116 °C

$HOCH_2CH_2OH$
M.W. 62.07 g/mol
Density: 1.115 g/cm³ (20 °C)
Boiling Pt: 196 to 198 °C (1013 hPa)
Melting Pt: -13 °C
Storage Temperature: 2 - 8°C

Ethylene glycol AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.7 %
IR Spectrum ..... Passes test
Alkalinity ..... Max. 0.0002 meq/g
Density (20/4) ..... 1.111 to 1.115
Formaldehyde ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 30 ppm
Water ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 20 ppm
Fe (Iron) ..... Max. 0.5 ppm
Conforms to BDH 10324 ..... Passes test
Appearance of solution (50 % V/V; water) Passes test
Acidity ..... Max. 0.0001 meq/g
Colouration ..... Max. 10 APHA
Substances discoloured by H_2SO_4 .. Max. 150 APHA
Heavy metals (as Pb) ..... Max. 1 ppm
Substances reducing $KMnO_4$ (as O) ..... Max. 3 ppm
Cl (Chloride) ..... Max. 0.2 ppm
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 1 ppm

Cat. No.	Pk	Pack type
24041.297	1 l	Glass bottle
24041.320	2,5 l	Glass bottle
24041.366	5 l	Plastic bottle
24041.446	20 l	Plastic drum

Ethylene glycol Ph. Eur.

Assay ..... Min. 99.0 %
Appearance ..... Clear viscous liquid
Relative density ..... 1.113 to 1.115
n 20/D (± 1.432) ..... Passes test
Boiling point (± 198°C) ..... Passes test
Acidity ..... Passes test
Water ..... Max. 0.2 %

Cat. No.	Pk	Pack type
85512.290	1 l	Plastic bottle
85512.360	5 l	Plastic container

Ethylene glycol TECHNICAL

Assay (on anhydrous substance) ..... Min. 98.0 %
Appearance of solution (50 % V/V; water) ..... Passes test

Cat. No.	Pk	Pack type
24407.292	1 l	Plastic bottle
24407.326	2,5 l	Plastic bottle
24407.361	5 l	Plastic bottle
24407.463	25 l	Plastic drum

Ethylene glycol VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
50906648.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ethylene glycol Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52106725.	210 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Ethylene glycol-O,O'-bis(2-aminoethyl)-N,N,N',N'-tetraacetic acid

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid)... p.162

Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid)... p.162

Ethylene glycol bis(2-aminoethyl ether)tetraacetic acid

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid)... p.162

Ethylene glycol monobutyl ether

See 2-Butoxyethanol p.87

Ethylene glycol monophenyl ether

See 2-Phenoxyethanol p.361

Ethylene tetrachloride

See Tetrachloroethylene..... p.498

Ethylenebis(oxyethylenenitrilo)tetra(acetic acid)

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid)... p.162

Ethylenediamine tetraacetic acid

See EDTA (Ethylenediamine tetraacetic acid)..... p.159

Ethylenediamine

1,2-Ethanediamine , 1,2-Diaminoethane

Danger
H226 H302+H312 H314 H334 H317
P210 P243 P280 P285 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 107-15-3
Index 612-006-00-6
EINECS: 203-468-6
UN: 1604
ADR 8,II
Flash Pt: 34 °C

$C_2H_8N_2$
M.W. 60.1 g/mol
Density: 0.898 g/cm³ (20 °C)
Boiling Pt: 117 °C (1013 hPa)
Melting Pt: 8.5 °C
Storage Temperature: Ambient temperature

Ethylenediamine TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
24039.290	1 l	Glass bottle

Ethylenediaminetetra-acetic acid dipotassium salt dihydrate

See EDTA dipotassium salt dihydrate p.160

Ethylenediaminetetra-acetic acid disodium salt dihydrate

See EDTA disodium salt dihydrate p.160

Ethylenediaminetetra-acetic acid iron (III) monosodium salt

See EDTA ferric monosodium salt p.161

Ethylenediaminetetra-acetic acid iron (III) sodium salt

See EDTA ferric monosodium salt p.161

Ethylenediaminetetra-acetic acid tetrasodium salt

See EDTA tetrasodium salt p.162

Ethylenedinitrilotetra-acetic acid dipotassium salt dihydrate

See EDTA dipotassium salt dihydrate p.160

Ethylenedinitrilotetra-acetic acid disodium salt dihydrate

See EDTA disodium salt dihydrate p.160

Ethylenedinitrilotetra-acetic acid iron (III) monosodium salt

See EDTA ferric monosodium salt p.161

Ethylenedinitrilotetra-acetic acid iron (III) sodium salt

See EDTA ferric monosodium salt p.161

Ethylenedinitrilotetra-acetic acid tetrasodium salt

See EDTA tetrasodium salt p.162

Ethylenedinitrilotetra-acetic acid

See EDTA (Ethylenediamine tetraacetic acid) p.159

Di-(2-ethylhexyl) phthalate

See Bis(2-ethylhexyl) phthalate p.67

2-(Ethylmercuriomercapto)benzoic acid sodium salt

See Thiomersal p.504

2-(Ethylmercuriothio)benzoic acid sodium salt

See Thiomersal p.504

Ethylmercurithiosalicylic acid sodium salt

See Thiomersal p.504

2-[(Ethylmercury)thio]benzoic acid sodium salt

See Thiomersal p.504

Europium standard solution, 1,000 mg/l Eu in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-53-1
EINECS: 231-161-7
UN: 3264
ADR 8,III

Eu
M.W. 151.96 g/mol
Density: 7.42 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Europium standard solution, 1,000 mg/l Eu in dil. nitric acid (from Eu_2O_3) ARISTAR® standard for ICP

Eu_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455342T	100 ml	Plastic bottle
455344V	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW

Europium standard solution, 1,000 mg/l Eu in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86676.180	100 ml	Plastic bottle
86676.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Fehling's reagent I (Copper (II) sulphate solution, concentrated solution)

Warning
H302 H319 H315 H410
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 7758-98-7
EINECS: 231-847-6
UN: 1760
ADR 8,III

$CuSO_4$
M.W. 159.61 g/mol
Storage Temperature: Ambient temperature

Fehling's reagent I (Copper (II) sulphate solution, concentrated solution) for qualitative determination of reducing sugars

Cupric sulphate solution
Fehling's reagent solution A
5 ml of solution A + 5 ml of solution B corresponds to about 0,050 g of anhydrous glucose
Identification ..... Passes test

Cat. No.	Pk	Pack type
31965.264	500 ml	Glass bottle

Fehling's reagent I (Copper (II) sulphate solution)

H411
P273

CAS 7758-98-7
EINECS: 231-847-6
UN: 3082
ADR 9,III

$CuSO_4$
M.W. 159.61 g/mol
Density: 1 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Fehling's reagent I (Copper (II) sulphate solution) for qualitative determination of reducing sugars

Cupric sulphate solution
Fehling's reagent solution A
10 ml of solution A + 10 ml of solution B corresponds to about 0,050 g of anhydrous glucose
Identification ..... Passes test

Cat. No.	Pk	Pack type
31963.291	1 l	Plastic bottle

Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution, concentrated solution)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 1824
ADR 8,II

Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution, concentrated solution) for qualitative determination of reducing sugars

Potassium-sodium tartrate, alkaline solution
Fehling's reagent solution B
5 ml of solution A + 5 ml of solution B corresponds to about 0,050 g of anhydrous glucose
Identification ..... Passes test

Cat. No.	Pk	Pack type
31966.267	500 ml	Glass bottle

Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 1824
ADR 8,II
Density: 1.2 g/cm³ (20 °C)

NEW

Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution) for qualitative determination of reducing sugars

Fehling's reagent solution B

Cat. No.	Pk	Pack type
230245A	1 l	Plastic bottle

Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution) for qualitative determination of reducing sugars

Potassium-sodium tartrate, alkaline solution

10 ml of solution A + 10 ml of solution B corresponds to about 0,050 g of anhydrous glucose
Identification ..... Passes test

Cat. No.	Pk	Pack type
31964.294	1 l	Plastic bottle

Fehling's reagent (kit, contains solution I and II)

Fehling's reagent (kit, contains solution I and II) Reag. Ph. Eur. 1023300 for qualitative determination of reducing sugars

Cat. No.	Pk	Pack type
87814.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Fehling's reagent (kit, contains solution I and II) for qualitative determination of reducing sugars

10 ml of solution corresponds to about 0,050 g of anhydrous glucose
Appearance ..... Clear blue liquid
Identification ..... Passes test

Cat. No.	Pk	Pack type
31701.296	1 l	Glass bottle

Ferric ammonium sulfate solution R2

NEW

Ferric ammonium sulfate solution R2 Reag. Ph. Eur. 1037702

Cat. No.	Pk	Pack type
87830.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferric ammonium sulfate solution R5

NEW

Ferric ammonium sulfate solution R5 Reag. Ph. Eur. 1037704

Cat. No.	Pk	Pack type
87831.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferric ammonium sulfate solution R6

NEW

Ferric ammonium sulfate solution R6 Reag. Ph. Eur. 1037705

Cat. No.	Pk	Pack type
87832.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferric chloride hexahydrate

See Iron (III) chloride hexahydrate p.250

Ferric chloride solution R3

NEW

Ferric chloride solution R3 Reag. Ph. Eur. 1037803

Cat. No.	Pk	Pack type
87835.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferric chloride

See Iron (III) chloride p.250

Ferric chloride-sulfamic acid reagent

NEW

Ferric chloride-sulfamic acid reagent Reag. Ph. Eur. 1037804

Cat. No.	Pk	Pack type
87836.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferric nitrate nonahydrate

See Iron (III) nitrate nonahydrate p.251

Ferric oxide

See Iron (III) oxide p.251

Ferric sulphate hydrate

See Iron (III) sulphate hydrate p.252

Ferroin (1,10-Phenanthroline-ferrous sulphate-complex) 0.025 mol/l in aqueous solution

CAS 14634-91-4
EINECS: 238-676-6

$C_{36}H_{24}FeN_6SO_4$
M.W. 692.54 g/mol
Density: 1.01 g/cm^3 (20 °C)

Ferroin (1,10-Phenanthroline-ferrous sulphate-complex) 0.025 mol/l in aqueous solution Reag. Ph. Eur. 1038100 redox indicator

Cat. No.	Pk	Pack type
87702.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ferroin indicator (1,10-Phenanthroline-Iron (II) sulphate complex, 7 mg/ml $FeSO_4$) in aqueous solution

CAS 14634-91-4
EINECS: 238-676-6

$C_{36}H_{24}FeN_6SO_4$
M.W. 692.54 g/mol

Ferroin indicator (1,10-Phenanthroline-Iron (II) sulphate complex, 7 mg/ml $FeSO_4$) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

1 ml of solution corresponds to 0,0070 g FeSO4

Identification ..... Passes test

Cat. No.	Pk	Pack type
30890.188	100 ml	Glass bottle

Ferrous chloride tetrahydrate

See Iron (II) chloride tetrahydrate p.249

Ferrous sulphate heptahydrate

See Iron (II) sulphate heptahydrate p.252

Fibrowax (formulation Raymond A. Lamb)

Warning
H302+H312 H319 H315
P280 P302+P352 P305+P351+P338 P309+P310
Storage Temperature: Ambient temperature

Fibrowax (formulation Raymond A. Lamb), in pastille form

(formulation Raymond A. Lamb)

Special blend of paraffin wax and microcrystalline wax, for superior sectioning. Recommended for fibrous tissue.

Appearance (65°C) ..... Passes test
Cutting/ ribboning ..... Passes test
Congealing range ..... 55 to 58 °C

Cat. No.	Pk	Pack type
361427G	10 kg	Plastic container

Ficoll 400

CAS 26873-85-8
M.W. 400000 g/mol
Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Ficoll 400 Electran® Molecular biology grade

Ficoll 400 is a neutral, hydrophilic polymer of sucrose, which readily dissolves in aqueous solutions.

Cat. No.	Pk	Pack type
437092S	25 g	Plastic bottle for solids
437093T	250 g	Plastic bottle for solids

Ficoll® is a registered trademark of Pharmacia Biotech AB.

FITC (Fluorescein 5-isothiocyanate, Fluorescein isothiocyanate isomer I)

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 3326-32-7
EINECS: 222-042-0

$C_{21}H_{11}NO_5S$
Storage Temperature: 2 - 8°C

FITC (Fluorescein 5-isothiocyanate, Fluorescein isothiocyanate isomer I) for conjugation

Features an excitation wavelength of 494 nm and an emission wavelength of 520 nm. Used widely in immunohistochemistry, flow cytometry, FACS analysis and molecular structure and functional studies.

Em (499 nm, Methanol, NaOH) 75000
Isomer I ..... 90 %

Cat. No.	Pk	Pack type
0633-500MG	500 mg	Glass bottle

Fixing solution (0.02% formaldehyde and 0.01% citric acid in aqueous solution)

Storage Temperature: Ambient temperature

Fixing solution (0.02% formaldehyde and 0.01% citric acid in aqueous solution) Reag. Ph. Eur. 1122500

Cat. No.	Pk	Pack type
87969.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Fixing solution (0.02% formaldehyde in methanol 50% (v/v))

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1198
ADR 3,III
Storage Temperature: Ambient temperature

Fixing solution (0.02% formaldehyde in methanol 50% (v/v)) Reag. Ph. Eur. 1122600

Cat. No.	Pk	Pack type
87970.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Fixing solution for isoelectric focusing in polyacrylamide gel

Danger
H314 H335 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3265
ADR 8,II
M.W. 218.19 g/mol

Fixing solution for isoelectric focusing in polyacrylamide gel Reag. Ph. Eur. 1138700

Cat. No.	Pk	Pack type
87972.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Florisil® 30-60 mesh for chromatography

Identification ..... Passes test
Particle size (30-60 US Mesh) ..... Min. 70 %

Cat. No.	Pk	Pack type
150243C	250 g	Plastic bottle for solids

Florisil® 60-100 mesh for chromatography

Identification ..... Passes test
Conforms to BDH 15025 ..... Passes test

Cat. No.	Pk	Pack type
24278.182	100 g	Plastic bottle for solids
24278.230	250 g	Plastic bottle for solids
24278.295	1 kg	Plastic bottle for solids

Florisil® 100-200 mesh for chromatography

Identification ..... Passes test
Particle size (100-200 US Mesh) ..... Min. 70 %

Cat. No.	Pk	Pack type
150263G	250 g	Plastic bottle for solids

Florisil® 60-100 mesh for pesticide residue analysis

Identification ..... Passes test

Cat. No.	Pk	Pack type
24279.185	100 g	Plastic bottle for solids

Fluid Thioglycollate Medium

See Microbiology

FluoranSafe 2 Scintran®

See Scintillation cocktail for aqueous samples p.417

Fluorescein sodium salt

See Fluorescein disodium salt p.186

Fluorescein

2-(6-Hydroxy-3-oxo-(3H)-xanthen-9-yl)benzoic acid

CAS 2321-07-5

EINECS: 219-031-8

$C_{20}H_{12}O_5$

M.W. 332.31 g/mol

Melting Pt: 314 to 316 °C

Storage Temperature: Ambient temperature

Fluorescein TECHNICAL

Ignition residue (SO_4)..... Max. 2 %
Loss on drying (100-105°C)..... Max. 1 %

Cat. No.	Pk	Pack type
6539.1000	1 kg	Plastic bottle for solids

Fluoride standard solution, 1,000 mg/l F- in water

Density: 1.005 g/cm³ (25 °C)

Boiling Pt: 100 °C (1013 hPa)

Storage Temperature: Ambient temperature

Fluoride standard solution, 1,000 mg/l F- in water (from NaF) ARISTAR® standard for ion chromatography

(F in H_2O)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458002X	100 ml	Plastic bottle
458004Q	500 ml	Plastic bottle

Fluorescein disodium salt

2-(6-hydroxy-3-oxo-(3H)-xanthen-9-yl)benzoic acid disodium salt , Disodium 2-(3-oxo-6-oxidoxanthen-9-yl)benzoate , Fluorescein sodium salt

CAS 518-47-8

EINECS: 208-253-0

$C_{20}H_{10}Na_2O_5$

M.W. 376.28 g/mol

Density: 1.601 g/cm³ (20 °C)

Melting Pt: Min. 300 °C

Storage Temperature: Ambient temperature

VWR CHEMICALS Fluorescein disodium salt, high purity

Yellow fluorine dye soluble in water as a sodium salt. Biological applications include use as a fluorescent labelling reagent for proteins.

Lambda Max..... 487 - 493 nm
O.D.@ Lambda Max (0.0124 g/2 L 0.001 M CO_3 Buffer)..... 1.0 - 1.25
Solubility (0.05%, Water)..... PASS

Cat. No.	Pk	Pack type
0681-100G	100 g	Glass bottle
0681-500G	500 g	Glass bottle

VWR CHEMICALS Fluorescein disodium salt USP

Employed in fluorescence microscopy. A useful industrial tracking dye.

Acriflavine..... PASS
Identification..... PASS
Moisture (KF)..... 17.0 %
Purity..... 90.0 - 102.0 %
Zinc..... PASS

Cat. No.	Pk	Pack type
0577-500G	500 g	Glass bottle

Product is tested to USP specifications

Fluorescein disodium salt TECHNICAL

IR Spectrum..... Passes test
UV Spectrum..... Passes test
Loss on drying (110°C)..... Max. 10 %
Absorption max. (buffer pH 8,0)..... 490 to 492 nm
Spec.absorptivity(Lm;0,005g/l;pH8,0;dry)..... Min. 1200

Cat. No.	Pk	Pack type
260983T	100 g	Glass bottle
26098CF	5 kg	Bucket (Plastic)

5-Fluorouracil

Fluorouracil , 5-FU

Danger
H351 H301
P201 P281 P309+P310

CAS 51-21-8

EINECS: 200-085-6

UN: 2811

ADR 6.1,III

$C_4H_3FN_2O_2$

M.W. 130.08 g/mol

Boiling Pt: 347 °C (1013 hPa)

Melting Pt: 282 to 283 °C

Storage Temperature: Ambient temperature

VWR CHEMICALS 5-Fluorouracil USP

Fluorine Content..... 13.9 - 15.0 %
Heavy Metals..... 0.002 %
Identification..... PASS
Loss on Drying..... 0.5 %
Purity..... 98.0 - 102.0 %
Residue after Ignition..... 0.1 %

Cat. No.	Pk	Pack type
0597-5G	5 g	Glass bottle

Product is Tested to USP Specifications

Folin-Ciocalteu's reagent

Warning
H319 H315
P280 P302+P352 P305+P351+P338

UN: 3264

ADR 8,III

Density: 1.22 g/cm³ (20 °C)

Folin-Ciocalteu's reagent for analysis of phenols

Identification..... Passes test

Cat. No.	Pk	Pack type
31360.264	500 ml	Glass bottle

Folin-Denis' reagent

Warning
H319 H315
P280 P302+P352 P305+P351+P338
Density: 1.1 g/cm³ (20 °C)

Folin-Denis' reagent for analysis of uric acid

Cat. No.	Pk	Pack type
31351.296	1 l	Glass bottle

Formal

See Formaldehyde dimethyl acetal p.190

Formaldehyde (35 - 40%)

Danger
H351 H301+H311+H331 H314 H317
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 2209
ADR 8,III

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 37% Electran® Molecular biology grade

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Cat. No.	Pk	Pack type
437533W	250 ml	Glass bottle
437536C	2,5 l	Glass bottle

Formaldehyde 37% for biotechnology

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Acidity	0.03 %
Colour (APHA)	<10
Formaldehyde	37.0 - 37.5 %
Methanol	10.5 - 13.0 %

Cat. No.	Pk	Pack type
0493-200ML	200 ml	Glass bottle
0493-500ML	500 ml	Glass bottle

Formaldehyde 37%, proteomics grade

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Acidity	0.03 %
Colour (APHA)	<10
Formaldehyde	37.0 - 37.5 %
Methanol	10.5 - 13.0 %

Cat. No.	Pk	Pack type
M134-200ML	200 ml	Glass bottle
M134-500ML	500 ml	Glass bottle

Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent

Stabilised with methanol 9 %

Assay	36.5 to 37.0 %	Acidity	Passes test Ph.Eur.
Appearance of solution	Passes test Ph.Eur.	Identification A	Passes test Ph.Eur.
Identification B	Passes test Ph.Eur.	Identification C	Passes test Ph.Eur.
IR Spectrum	Passes test	Solution S	Passes test Ph.Eur.
Acidity	Max. 0.006 meq/g	Colouration	Max. 10 APHA
Density (20/4)	1.083 to 1.093	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 50 ppm	Methanol	8 to 10 %
Methanol (V/V)	9.0 to 15.0 %	Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 20 ppm	Fe (Iron)	Max. 2 ppm
Pb (Lead) (ISO)	Max. 2 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
20909.290	1 l	Glass bottle
20909.330	2,5 l	Plastic bottle
20909.368	5 l	Plastic bottle
20909.448	20 l	Plastic drum

Technical data sheet and instructions available on vwr.com
Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Formaldehyde 36% (39% w/v) GPR RECTAPUR®

Stabilised with methanol 10 %

Assay	35 to 37 %
Density (20/4)	1.083 to 1.093
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.02 %
Methanol	8 to 12 %

Cat. No.	Pk	Pack type
20910.294	1 l	Plastic bottle
20910.328	2,5 l	Glass bottle SAFEBREAK
20910.330	2,5 l	Plastic bottle
20910.363	5 l	Plastic bottle
20910.443	20 l	Plastic drum

Technical data sheet and instructions available on vwr.com

NEW Formaldehyde 35% Reag. Ph. Eur. 1039101

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Cat. No.	Pk	Pack type
87837.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Formaldehyde 35% TECHNICAL

Stabilised with methanol 10 - 15 %

Assay	Min. 34.5 %

Cat. No.	Pk	Pack type
90240.5000	5 l	Plastic bottle
90240.9010	10 l	Plastic drum
90240.9025	25 l	Plastic drum

Technical data sheet and instructions available on vwr.com
Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Formaldehyde 30-35%, buffered (pH 7.0 ± 0.2)

Danger
H351 H301+H311+H331 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 2209
ADR 8,III

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 30-35%, buffered (pH 7.0 ± 0.2)

Assay (Formaldehyde)..... 30 to 35 %

Cat. No.	Pk	Pack type
5526.5000	5 l	Plastic container

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Formaldehyde 30%

Danger
H351 H301+H311+H331 H314 H317
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 50-00-0
EINECS: 200-001-8
UN: 2209
ADR 8,III
Storage Temperature: Ambient temperature

NEW Formaldehyde 30% Q PATH®

Formalin 30% fixative for tissue samples.

Cat. No.	Pk	Pack type
11699031.	5 l	Plastic container

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Formaldehyde 24%

Danger
H351 H301+H311+H331 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 3334
ADR 9,

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 24% TECHNICAL

Assay..... 22 to 24 %

Cat. No.	Pk	Pack type
5785.5000	5 l	Plastic container

Warning : Store this product at ambient temperature (above 15°C), because it may polymerise at temperatures below 9°C. Presence of polymers does not affect product properties. Precipitate can be removed by filtration.

Formaldehyde 10%

Danger
H351 H301+H311+H331 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 3334
ADR 9,

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 10%

Assay (Formaldehyde)..... 8 to 12 %
pH (20°C)..... 8.20 to 8.40

Cat. No.	Pk	Pack type
5167.1000	1 l	Plastic bottle

Formaldehyde 7.5%, buffered (pH 7.0 ± 0.2)

Warning
H351 H302+H312+H332 H317
P281 P302+P352 P304+P340 P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
Flash Pt: 64

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 7.5%, buffered (pH 7.0 ± 0.2) TECHNICAL

Assay (Formaldehyde)..... 7.0 to 9.0 %
pH (20°C)..... 6.80 to 7.20

Cat. No.	Pk	Pack type
5534.1000	1 l	Plastic bottle
5534.9010	10 l	Plastic drum

Technical data sheet and instructions available on vwr.com

Formaldehyde 4% (= 10% Formaline solution), buffered (pH 7.0 ± 0.2)

Warning
H351 H302+H312+H332 H317
P281 P302+P352 P304+P340 P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
Flash Pt: 64

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL

Formalin 10 % v/v

Assay (Formaldehyde)..... 3.5 to 4.5 %
pH (20°C)..... 6.80 to 7.20
Methanol..... 0.5 to 1.5 %

Cat. No.	Pk	Pack type
9713.1000	1 l	Plastic bottle
9713.5000	5 l	Plastic container
9713.6010	10 l	Bag-in-box (Cubitainer)
9713.9010	10 l	Plastic drum
9713.9025	25 l	Plastic drum

Technical data sheet and instructions available on vwr.com

NEW Formaldehyde 4% buffered Q PATH®

Formalin ready to use fixative for tissue samples. Pots and buckets can be used for storage.

IVD

Cat. No.	Pk	Pack type
FOR0150AF59001	32 x 80 ml	Pot
FOR0070AF59001	50 x 30 ml	Pot
FOR0060AF59001	50 x 25 ml	Pot
FOR0020AF59001	102 x 5 ml	Pot
10099464.	24 x 500 ml	Pot
10099465.	14 x 1 l	Pot
11699455.	1 l	Plastic bottle
11699404.	5 l	Plastic container
11699408.	10 l	Bag-in-box (Cubitainer)
FOR010LAF59001	10 l	Plastic container
10099474.	16 x 1 l	Bucket (Plastic)
10099473.	12 x 3 l	Bucket (Plastic)
10099476.	12 x 5 l	Bucket (Plastic)

Each 20 ml Pot contains 5 ml. Each 60 ml Pot contains 25 ml. Each 70 ml Pot contains 30 ml. Each 150 ml Pot contains 80 ml
Each 500 ml Pot contains 250 ml. Each 1 l Pot contains 500 ml
Each 1 l BUCKET contains 500 ml. Each 3 l BUCKET contains 1,5 l. Each 5 l BUCKET contains 2,5 l
IVD registered. Instructions for use on vwr.com- just search for the product.

NEW Formaldehyde 4% buffered (pink) Q PATH®

Formalin pink ready to use fixative for tissue samples. Pots can be used for storage and transport.
Contains traces of pink dye to help see section.

Cat. No.	Pk	Pack type
FOR0153AF59001	32 x 80 ml	Pot
FOR0063AF59001	50 x 25 ml	Pot
FOR0023AF59001	102 x 5 ml	Pot

Each 20 ml Pot contains 5 ml. Each 60 ml Pot contains 25 ml. Each 150 ml Pot contains 80 ml.
IVD registered. Instructions for use on vwr.com- just search for the product

Formaldehyde 0.4% in sulphuric acid 95%

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 50-00-0
EINECS: 200-001-8
UN: 1830
ADR 8,II

CH_2O
Storage Temperature: Ambient temperature

Formaldehyde 0.4% in sulphuric acid 95% Reag. Ph. Eur. 1086805

Cat. No.	Pk	Pack type
87951.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Formaldehyde neutralizer

Danger
H302 H318
EUH031
P280 P305+P351+P338 P309+P310

CAS 7681-57-4
EINECS: 231-673-0
Storage Temperature: Ambient temperature

NEW Formaldehyde neutralizer Q PATH®

Formalin neutralizer.

Cat. No.	Pk	Pack type
00699030.	5 kg	Bucket (Plastic)

Formaldehyde dimethyl acetal

Dimethoxymethane , Methylal , Formal

Danger
H225 H302+H312+H332 H371
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 109-87-5
EINECS: 203-714-2
UN: 1234
ADR 3,II
Flash Pt: -18 °C

$CH_2(OCH_3)_2$
M.W. 76.1 g/mol
Density: 0.821 g/cm³ (20 °C)
Boiling Pt: 42 °C (1013 hPa)
Melting Pt: -105 °C
Storage Temperature: Ambient temperature

Formaldehyde dimethyl acetal GPR RECTAPUR®

Assay ..... Min. 98 %
Density (20/4) ..... 0.850 to 0.860
Distillation range ..... 41.5 to 43.5 °C
Evaporation residue ..... Max. 50 ppm
Methanol ..... Max. 1.0 %

Cat. No.	Pk	Pack type
25475.293	1 l	Glass bottle

Formaldehyde dimethyl acetal TECHNICAL

Assay ..... 91 to 95 %
Methanol ..... 5.5 to 7.5 %

Cat. No.	Pk	Pack type
25473.365	5 l	Fluorinated plastic bottle

Formalin

See Formaldehyde (35 - 40%) p.187

Formalin acetic acid

Warning
H351 H302+H312+H332 H317
P281 P302+P352 P304+P340 P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8

CH_2O
Storage Temperature: Ambient temperature

NEW Formalin acetic acid Q PATH®

Formalin acetic acid ready to use fixative for tissue samples.

IVD

Cat. No.	Pk	Pack type
FOA0060AF59001	50 x 5 ml	Pot
11699025.	5 l	Plastic container

Each 60 ml Pot contains 5 ml.
IVD registered. Instructions for use on vwr.com- just search for the product.

Formamide

Danger
H360D
P201 P281 P308+P313

CAS 75-12-7
Index 616-052-00-8
EINECS: 200-842-0
Flash Pt: 79 °C

Restricted to professional users.

$HCONH_2$
M.W. 45.04 g/mol
Density: 1.1334 g/cm³ (20 °C)
Boiling Pt: 210 °C (1013 hPa)
Melting Pt: 2 °C
Storage Temperature: 2 - 8°C

Formamide AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.0 %
Ignition residue (SO_4) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 1 ppm
Heavy metals (as Pb) ..... Max. 1 ppm
Water ..... Max. 0.2 %
Fe (Iron) ..... Max. 1 ppm

Cat. No.	Pk	Pack type
24311.291	1 l	Glass bottle
24311.320	2,5 l	Glass bottle

Formamide, (max. 0.1% H_2O) GPR RECTAPUR® for synthesis

Assay ..... Min. 99 %
Ignition residue (SO_4) ..... Max. 100 ppm
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
24312.294	1 l	Glass bottle

Formamide Electran® Molecular biology grade

Identity ..... passes test
Assay (calc. as N) ..... Min 99 %
Absorbance 260 nm (C = 0.5 mol/l, H_2O - 10 mm - ref H_2O) ..... Max 0.08
DNases ..... Max 0.05
Absorbance 280 nm (C = 0.5 mol/l, H_2O - 10 mm - ref H_2O) ..... Max 0.03
DNAses (exo and endonucleases) ..... not detected
Proteases ..... not detected
RNases ..... not detected
Heavy metals (as Pb) ..... Max 0.0001 %
Heavy metals (as Pb) ..... Max. 0.0001 %
Water ..... Max. 0.1 %
Cl (Chloride) ..... Max. 0.00005 %
Fe (Iron) ..... Max. 0.00001 %
Pb (Lead) ..... Max. 0.00001 %

Cat. No.	Pk	Pack type
444472T	100 ml	Glass bottle
444475W	1 l	Plastic bottle

VWR CHEMICALS Formamide, high purity

Ideal for denaturing nucleic acids in hybridisation and DNA sequencing procedures.

Abs.@280 nm 0.1
Conductivity ..... 350 umhos
Copper ..... <0.0001 %
Freezing Range ..... 1 - 3 °C
Iron ..... < 0.0005 %
Lead ..... < 0.0001 %
Purity ..... 99.0 %
Zinc ..... < 0.0001 %

Cat. No.	Pk	Pack type
0314-500ML	500 ml	Plastic bottle for solids
0314-950ML	950 ml	Plastic bottle for solids

Formamide, ultrapure

Abs.@280 nm	0.05
Conductivity	100 umhos
Copper	<0.00001 %
DNase	NONE
Freezing Range	1 - 3 °C
Iron	< 0.0005 %
Lead	< 0.00005 %
Moisture (KF)	< 0.75 %
Purity	99.5 %
RNase	NONE
Zinc	< 0.00005 %

Cat. No.	Pk	Pack type
0606-100ML	100 ml	Plastic bottle for solids
0606-500ML	500 ml	Plastic bottle for solids
0606-950ML	950 ml	Plastic bottle for solids

Formamide TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24313.366	5 l	Plastic bottle

Formamide, treated

NEW

Formamide, treated Reag. Ph. Eur. 1039201

Cat. No.	Pk	Pack type
87838.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Formdimethylamide

See N,N-Dimethylformamide p.149

Formic acid

Methanoic acid 100%

Danger
H226 H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 64-18-6
Index 607-001-00-0
EINECS: 200-579-1
UN: 1779
ADR 8,II
Flash Pt: 48 °C

HCO_2H
M.W. 46.03 g/mol
Density: 1.22 g/cm³ (25 °C)
Boiling Pt: 100 to 101 °C (1013 hPa)
Melting Pt: 8.2 to 8.4 °C
Storage Temperature: Ambient temperature

Formic acid ARISTAR® for trace analysis

Assay	Min 98.0 %	Colouration	Max 10 HU
Acetic acid (CH_3CO_2H)	Max 0.05 %	Non-volatile matter	Max 2 ppm
Sulphates (SO_4)	Max 0.5 ppm	Chloride (Cl)	Max 5 ppm
Ag (Silver)	Max 0.001 ppm	Al (Aluminium)	Max 0.005 ppm
Au (Gold)	Max 0.005 ppm	Ba (Barium)	Max 0.002 ppm
Be (Beryllium)	Max 0.001 ppm	Bi (Bismuth)	Max 0.002 ppm
Ca (Calcium)	Max 0.05 ppm	Cd (Cadmium)	Max 0.001 ppm
Co (Cobalt)	Max 0.001 ppm	Cr (Chromium)	Max 0.001 ppm
Cu (Copper)	Max 0.002 ppm	Fe (Iron)	Max 0.01 ppm
Ga (Gallium)	Max 0.005 ppm	Hg (Mercury)	Max 0.005 ppm
In (Indium)	Max 0.002 ppm	K (Potassium)	Max 0.02 ppm
Li (Lithium)	Max 0.001 ppm	Mg (Magnesium)	Max 0.01 ppm
Mn (Manganese)	Max 0.001 ppm	Mo (Molybdenum)	Max 0.001 ppm
Na (Sodium)	Max 0.02 ppm	Ni (Nickel)	Max 0.002 ppm
Pb (Lead)	Max 0.002 ppm	Sn (Tin)	Max 0.001 ppm
Sr (Strontium)	Max 0.001 ppm	Ti (Titanium)	Max 0.001 ppm
Tl (Thallium)	Max 0.001 ppm	V (Vanadium)	Max 0.001 ppm
Zn (Zinc)	Max 0.005 ppm		

Cat. No.	Pk	Pack type
450122M	100 ml	Glass bottle

Formic acid 99-100% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Dilution test	Passes test ACS
Colouration	Max. 10 APHA	Solidification point	7 to 8 °C
n 20/D	1.370 to 1.372	Density (20/20)	1.210 to 1.230
Acetic acid	Max. 0.4 %	Evaporation residue	Max. 30 ppm
Heavy metals (as Pb)	Max. 10 ppm	Ignition residue (SO_4)	Max. 20 ppm
Water	Max. 1.0 %	Cl (Chloride)	Max. 5 ppm
NH_4 (Ammonium)	Max. 20 ppm	SO_3 (Sulphite)	Max. 10 ppm
SO_4 (Sulphate)	Max. 10 ppm	Cd (Cadmium)	Max. 0.1 ppm
Cu (Copper)	Max. 0.1 ppm	Fe (Iron)	Max. 4 ppm
Pb (Lead)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
20318.297	1 l	Glass bottle
20318.320	2,5 l	Glass bottle
20318.322	2,5 l	Glass bottle SAFEBREAK
20318.446	20 l	Plastic drum

Formic acid 98% GPR RECTAPUR®

Assay	Min. 98 %
n 20/D	1.370 to 1.372
Acetic acid	Max. 0.2 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 100 ppm
Non-volatile residue	Max. 100 ppm
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 50 ppm
Conforms to BDH 28430	Passes test

Cat. No.	Pk	Pack type
20320.295	1 l	Glass bottle
20320.320	2,5 l	Glass bottle SAFEBREAK
20320.364	5 l	Plastic bottle

Formic acid (50 - < 85%)

Methanoic acid 50%

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 64-18-6
Index 607-001-00-0
EINECS: 200-579-1
UN: 3412
ADR 8,II

HCO_2H
Storage Temperature: Ambient temperature

Formic acid 80% TECHNICAL

Assay ..... 79 to 81 %
n 20/D ..... 1.369 to 1.372

Cat. No.	Pk	Pack type
20315.297	1 l	Glass bottle
20315.366	5 l	Plastic bottle
20315.446	20 l	Plastic drum

Formic acid ammonium salt

See Ammonium formate p.33

Formic acid dimethylamide

See N,N-Dimethylformamide p.149

Fractoil synthetic immersion oil

See Immersion oil (contains dibutyl phthalate and chloroparaffin) p.239

Fraser broth

See Microbiology

Freeze gel (Glue)

Storage Temperature: Ambient temperature

NEW Freeze gel (Glue) Q PATH®

High viscosity mounting media for Cryotomy. Less viscous than O.C.T.

IVD

Cat. No.	Pk	Pack type
07111245.	125 ml	Dosing Bottle (Plastic)

IVD registered. Instructions for use on vwr.com- just search for the product.

Freezing aerosol

See Cryolab freezing aerosol p.127

D(-)-Fructose

D(-)-Levulose

CAS 57-48-7
EINECS: 200-333-3

$C_6H_{12}O_6$
M.W. 180.16 g/mol
Density: 1.59 g/cm³ (20 °C)
Boiling Pt: 552 °C (1013 hPa)
Melting Pt: 100 to 110 °C
Storage Temperature: Ambient temperature

D(-)-Fructose AnalaR NORMAPUR® analytical reagent

Assay (calculated on anhydrous) ..... Min. 99.0 %
Spec.opt.rot.(10 %;water)(on anhydrous) ... -93.5 to -91.0 °
Ignition residue (SO_4) ..... Max. 0.05 %
Water ..... Max. 0.5 %
SO_4 (Sulphate) ..... Max. 50 ppm
Cd (Cadmium) ..... Max. 1 ppm
Fe (Iron) ..... Max. 1 ppm
Zn (Zinc) ..... Max. 5 ppm
IR Spectrum ..... Passes test
Glucose ..... Max. 0.5 %
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 10 ppm
As (Arsenic) ..... Max. 1 ppm
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 1 ppm

Cat. No.	Pk	Pack type
103674Y	500 g	Plastic bottle for solids

D(-)-Fructose Ph. Eur.

Appearance ..... Colourless crystals
Identification A ..... Passes test
Identification B ..... Passes test
Identification C ..... Passes test
Identification D ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Spec. opt. rotation (calc. on anhydrous) ..... -93.5 to -91.0 °
Foreign sugars ..... Passes test
5-Hydroxymethylfurfural + related subst. ..... Passes test
Ba (Barium) ..... Passes test
Lead in sugars ..... Max. 0.5 ppm
Water ..... Max. 0.5 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
24282.290	1 kg	Plastic bottle for solids
24282.368	5 kg	Plastic bottle for solids
24282.461	25 kg	Bucket (Plastic)

D(-)-Fructose GPR RECTAPUR®

Specific optical rotation (10 %; water) ..... -94 to -90 °
Ignition residue (SO_4) ..... Max. 0.1 %
Water ..... Max. 0.5 %
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
24975.294	1 kg	Plastic bottle for solids

VWR CHEMICALS D(-)-Fructose, high purity

Arsenic ..... < 0.0001 %
Calcium & Magnesium ..... 0.005 %
Chloride ..... <0.018 %
Heavy Metals (as Pb) ..... <0.0005 %
Loss on Drying ..... 0.5 %
Purity ..... 99.0 %
Residue on Ignition ..... 0.5 %
Sulphate ..... < 0.025 %

Cat. No.	Pk	Pack type
0226-1KG	1 kg	Plastic bottle
0226-2.5KG	2,5 kg	Plastic bottle
0226-5KG	5 kg	Bucket (Plastic)
0226-12KG	12 kg	Bucket (Plastic)

Basic Fuchsin

(4-(4-Aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methylaniline hydrochloride , Diamondfuchsin , Rosaniline hydrochloride

Danger
H350
P201 P281 P308+P313

CAS 632-99-5
EINECS: 211-189-6

Restricted to professional users.

$C_{20}H_{20}ClN_3$
M.W. 337.85 g/mol
Density: 1.22 g/cm³ (20 °C)
Melting Pt: 235 °C
Storage Temperature: Ambient temperature

Basic Fuchsin for microscopy

Suited for microscopy ..... Passes test

Cat. No.	Pk	Pack type
3525.0025	25 g	Plastic bottle for solids

Technical data sheet and instructions available on vwr.com

Basic Fuchsin GURR® for microscopical staining

IVD

Dye content (spectrophotometric) ..... Min 80 %
Identity ..... Passes test (UV/Vis)
Suitability for microscopy ..... Passes test
Loss on drying (110°C) ..... Max 15 %
Absorption max. Lambda (EtOH 50%) ..... 549 to 552 nm
Absorptivity (A 1%/1cm, Lambda max., EtOH 50%) ..... 2150 to 2710
TLC test ..... Passes test

Cat. No.	Pk	Pack type
340325K	100 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Fuchsin solution, decolourised

NEW

Fuchsin solution, decolourised Reag. Ph. Eur. 1039401

Cat. No.	Pk	Pack type
87839.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Fuchsin solution decolourised R1

UN: 1789
ADR 8,III

Fuchsin solution, decolourised R1 Reag. Ph. Eur. 1039402

Cat. No.	Pk	Pack type
87840.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

2,5-Furanedione

See Maleic anhydride p.277

G418 disulphate

G-418 disulphate , Geneticin® , G418 sulphate , G-418 sulphate

Warning
H302+H312+H332
P261 P302+P352 P304+P340 P309+P311

CAS 108321-42-2

$C_{20}H_{44}N_4O_{18}S_2$
M.W. 692.72 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS G418 disulphate, ultrapure

Activity ..... 500 U/mg
Appearance ..... PASS
Expiration Date ..... REPORT
Identification (IR) ..... PASS
Moisture ..... 10.0 %
Optical Rotation (1%, Water)@25 °C ..... REPORT
Solubility (80 mg/ml, PBS) ..... NONE

Cat. No.	Pk	Pack type
E859-100MG	100 mg	Glass bottle
E859-1G	1 g	Glass bottle
E859-5G	5 g	Glass bottle

G418 disulphate 0.1 mol/l aqueous solution

CAS 108321-42-2

$C_{20}H_{44}N_4O_{18}S_2$
M.W. 692.72 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS G418 disulphate 0.1 mol/l aqueous solution for biotechnology

Used as a selection agent for both prokaryotic and eukaryotic transfected cells. An aminoglycoside similar to gentamycin, G418 is toxic to bacterial, yeast, higher plant and mammalian cells in addition to protozoans and helminths. Transformants survive in G418 supplemented media by expression of an aminoglycoside-modifying enzyme.
Recommended working concentration: 400 µg/ml

Abs.@280 nm ..... < 0.70
Abs.@570 nm ..... < 0.10
Expiration Date ..... REPORT
pH @25 °C ..... REPORT

Cat. No.	Pk	Pack type
J847-20ML	20 ml	Plastic bottle

Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-54-2
EINECS: 231-162-2
UN: 3264
ADR 8,III

Gd
M.W. 157.25 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid (from Gd_2O_3) ARISTAR® standard for ICP

Gd_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455362A	100 ml	Plastic bottle
455364C	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86679.180	100 ml	Plastic bottle
86679.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

D(+)-Galactose

(2R,3S,4S,5R)-Pentahydroxyhexanal

CAS 59-23-4
EINECS: 200-416-4

$C_6H_{12}O_6$
M.W. 180.16 g/mol
Density: 1.5 g/cm³ (20 °C)
Boiling Pt: 527 °C (1013 hPa)
Melting Pt: 163 to 169 °C
Storage Temperature: Ambient temperature

D(+)-Galactose GPR RECTAPUR®

Specific optical rotation (10 %; water) ..... 79 to 82 °
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.1 %
Loss on drying (100°C) ..... Max. 1.0 %

Cat. No.	Pk	Pack type
24333.183	100 g	Plastic bottle for solids
24333.296	1 kg	Plastic bottle for solids

VWR CHEMICALS D(+)-Galactose, high purity

Purity 99.0
Specific Rotation (2%, Water 5 Hrs.) ..... +79 to +81 °

Cat. No.	Pk	Pack type
0637-100G	100 g	Plastic bottle for solids
0637-250G	250 g	Plastic bottle for solids
0637-500G	500 g	Plastic bottle for solids

Gallium standard solution, 10,000 mg/l Ga in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-55-3
EINECS: 231-163-8
UN: 3264
ADR 8,III

Ga
M.W. 69.723 g/mol
Storage Temperature: Ambient temperature

Gallium standard solution, 10,000 mg/l Ga in dil. nitric acid (from Ga) ARISTAR® standard for ICP

Ga in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455392G	100 ml	Plastic bottle

Supplied with certificate of analysis.

Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-55-3
EINECS: 231-163-8
UN: 3264
ADR 8,III

Ga
M.W. 69.723 g/mol
Density: 1.014 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid (from Ga) ARISTAR® standard for ICP

Ga in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455382E	100 ml	Plastic bottle
455384G	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86678.180	100 ml	Plastic bottle
86678.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Gardner Colour Standard (2-16)

Storage Temperature: Ambient temperature

NEW Gardner Colour Standard 2

Cat. No.	Pk	Pack type
84815.260	500 ml	Glass bottle

NEW Gardner Colour Standard 4

Cat. No.	Pk	Pack type
84816.260	500 ml	Glass bottle

NEW Gardner Colour Standard 6

Cat. No.	Pk	Pack type
84817.260	500 ml	Glass bottle

NEW Gardner Colour Standard 8

Cat. No.	Pk	Pack type
84818.260	500 ml	Glass bottle

NEW Gardner Colour Standard 10

Cat. No.	Pk	Pack type
84819.260	500 ml	Glass bottle

NEW Gardner Colour Standard 12

Cat. No.	Pk	Pack type
84820.260	500 ml	Glass bottle

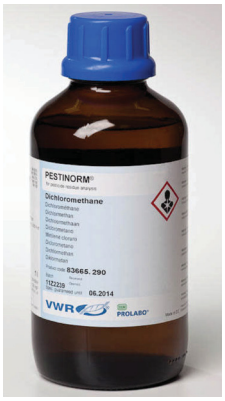
NEW Gardner Colour Standard 14

Cat. No.	Pk	Pack type
84821.260	500 ml	Glass bottle

NEW Gardner Colour Standard 16

Cat. No.	Pk	Pack type
84822.260	500 ml	Glass bottle

GC solvents and reagents for pesticide residue analysis PESTINORM®



Detection of trace organic substances in the environment requires the use of highly purified solvents for all stages of analysis, starting with sample preparation.
PESTINORM® solvents are guaranteed specifically for use in pesticide residue analysis and designed to meet the day-to-day requirements of quality control laboratories.
These solvents contain extremely low levels of halogenated and other organic compounds to prevent sample contamination. They are ideal for research and analytical laboratories that test samples for the presence of pesticides or insecticides.

Impurities causing interfering peaks on gas chromatogram are not greater than :
- 5 ng/l of lindane by electron capture detection
- 10 ng/l of ethyl parathion by phosphorous nitrogen detection
- 10 ng/ml of octanol by flame ionisation detection
- Evaporation residue less than 5 ppm

Purified from selected raw materials under ISO 9001 conditions, these solvents are:
- Filtered at 0,2 µm
- Bottled under nitrogen
- Fitted with caps which have PTFE liners to prevent contamination
- Packed in standard glass bottles with DIN 45 closures

Description	Page	Pk	Cat. No.
Acetone PESTINORM® for capillary GC analysis	6, 196	2,5 l	83960.320
Acetone PESTINORM® for pesticide residue analysis	6, 196	1 l	83656.290
Acetone PESTINORM® for pesticide residue analysis	6, 196	2,5 l	83656.320
Acetonitrile PESTINORM® for pesticide residue analysis	10, 196	1 l	83657.290
Acetonitrile PESTINORM® for pesticide residue analysis	10, 196	2,5 l	83657.320
Cyclohexane PESTINORM® for pesticide residue analysis	128, 196	1 l	83658.290
Cyclohexane PESTINORM® for pesticide residue analysis	128, 196	2,5 l	83658.320
Dichloromethane PESTINORM® for capillary GC analysis	142, 196	2,5 l	83961.320
Dichloromethane PESTINORM® for pesticide residue analysis	142, 196	1 l	83665.290
Dichloromethane PESTINORM® for pesticide residue analysis	142, 196	2,5 l	83665.320
Diethyl ether PESTINORM® for pesticide residue analysis	145, 196	2,5 l	83659.320
Ethyl acetate PESTINORM® for capillary GC analysis	179, 196	2,5 l	83963.320
Ethyl acetate PESTINORM® for pesticide residue analysis	179, 196	1 l	83660.290
Ethyl acetate PESTINORM® for pesticide residue analysis	179, 196	2,5 l	83660.320
Florisil® 60-100 mesh for pesticide residue analysis	185, 196	100 g	24279.185
n-Hexane PESTINORM® for capillary GC analysis	196, 215	2,5 l	83962.320
n-Hexane PESTINORM® for pesticide residue analysis	196, 215	1 l	83661.290
n-Hexane PESTINORM® for pesticide residue analysis	196, 215	2,5 l	83661.320
Methanol PESTINORM® for capillary GC analysis	196, 286	2,5 l	83966.320
Methanol PESTINORM® for purge and trap GC analysis	196, 286	2,5 l	83967.320
Methanol PESTINORM® for pesticide residue analysis	196, 286	1 l	83662.290
Methanol PESTINORM® for pesticide residue analysis	196, 286	2,5 l	83662.320
n-Pentane PESTINORM® for capillary GC analysis	196, 345	2,5 l	83964.320
Petroleum spirit 40-60°C PESTINORM® for pesticide residue analysis	196, 352	2,5 l	83663.320
Petroleum spirit 40-60°C PESTINORM® for capillary GC analysis	196, 352	2,5 l	83965.320
Sodium sulphate PESTINORM® for pesticide residue analysis	196, 457	1 kg	28116.293
Toluene PESTINORM® for pesticide residue analysis	196, 510	2,5 l	83664.320

Gelatine

CAS 9000-70-8
EINECS: 232-554-6
Density: 0.68 g/cm³ (20 °C)
Boiling Pt: 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Gelatine, powder Ph. Eur.

Appearance	Pale yellow powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
pH (1 %)	3.8 to 7.6
Conductivity (30°C; 1 %; water)	Max. 1 mS/cm
Sulphur dioxide	Max. 50 ppm
Peroxides	Max. 10 ppm
Gel strength (Bloom value)	80 to 120
Fe (Iron)	Max. 30.0 ppm
Cr (Chromium)	Max. 10.0 ppm
Zn (Zinc)	Max. 30.0 ppm
Loss on drying (105°C)	Max. 15.0 %
Microbial contamination	Passes test
Residual solvents	Passes test

Cat. No.	Pk	Pack type
24360.233	250 g	Plastic bottle for solids
24360.368	5 kg	Bucket (Plastic)

Gelatine, reagent grade

Bloom	238 - 282
E. coli	NONE
Moisture	<13 %
pH @25 °C	4.0 - 5.7
Salmonella	NONE
Standard Plate Count	1000 /g
Viscosity	38 - 50 mps

Cat. No.	Pk	Pack type
9764-100G	100 g	Plastic bottle for solids
9764-500G	500 g	Plastic bottle for solids

Gelatine, powder TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
24350.262	500 g	Plastic bottle for solids

Gentamicin sulphate

Gentamicin sulphate salt

Danger
H334 H317
P280 P261 P342+P311

CAS 1405-41-0
EINECS: 215-778-9
$C_{21}H_{45}N_5O_{11}S$
M.W. 575.68 g/mol
Melting Pt: 218 to 237 °C
Storage Temperature: Ambient temperature

Gentamicin sulphate USP for tissue culture

Antibiotic that primarily targets gram- bacteria by binding to the 30S subunit of bacterial ribosome. Recommended working concentration: 15 µg/ml.

Expiration Date	REPORT
Identification(IR)	PASS
Loss on Drying	18.0 %
Methanol	1.0 %
pH (4%, Water) @25 °C	3.5 - 5.5
Potency (Dry Basis)	590 mcg/mg
Residue after Ignition	1.0 %
Specific Rotation	+107 to +121 °

Cat. No.	Pk	Pack type
0304-5G	5 g	Glass bottle
0304-10G	10 g	Glass bottle

Gentamicin sulphate 50 mg/ml aqueous solution

Danger
H334 H317
P280 P261 P342+P311

CAS 1405-41-0
EINECS: 215-778-9
$C_{21}H_{45}N_5O_{11}S$
M.W. 575.68 g/mol
Storage Temperature: 2 - 8°C

Gentamicin sulphate 50 mg/ml aqueous solution for tissue culture

Filtered through a 0.22 µM filter. Binds to the 30S subunit of bacterial ribosome.

pH @25 °C	3.5 - 5.5
Specific Rotation	+107 to +121 °

Cat. No.	Pk	Pack type
E737-20ML	20 ml	Vial

Germanium standard solution, 10,000 mg/l Ge in water with hydrofluoric acid (max. 1%)

CAS 7440-56-4
EINECS: 231-164-3
Ge
M.W. 72.63 g/mol
Storage Temperature: Ambient temperature

Germanium standard solution, 10,000 mg/l Ge in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2GeF_6$) ARISTAR® standard for ICP

$(NH_4)_2GeF_6$ in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455412Q	100 ml	Plastic bottle

Supplied with certificate of analysis.

Germanium standard solution, 1,000 mg/l Ge in water

CAS 7440-56-4
EINECS: 231-164-3
Ge
M.W. 72.63 g/mol
Storage Temperature: Ambient temperature

Germanium standard solution, 1,000 mg/l Ge in water (from Ge) ARISTAR® standard for ICP-MS

$(NH_4)_2GeF_6$ in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456732K	100 ml	Plastic bottle

Supplied with certificate of analysis.

G418 disulphate

G-418 disulphate , Geneticin® , G418 sulphate , G-418 sulphate

Warning
H302+H312+H332
P261 P302+P352 P304+P340 P309+P311

CAS 108321-42-2

$C_{20}H_{44}N_4O_{18}S_2$
M.W. 692.72 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS G418 disulphate, ultrapure

Activity	500 U/mg
Appearance	PASS
Expiration Date	REPORT
Identification (IR)	PASS
Moisture	10.0 %
Optical Rotation (1%, Water)@25 °C	REPORT
Solubility (80 mg/ml, PBS)	NONE

Cat. No.	Pk	Pack type
E859-100MG	100 mg	Glass bottle
E859-1G	1 g	Glass bottle
E859-5G	5 g	Glass bottle

G418 disulphate 0.1 mol/l aqueous solution

CAS 108321-42-2

$C_{20}H_{44}N_4O_{18}S_2$
M.W. 692.72 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS G418 disulphate 0.1 mol/l aqueous solution for biotechnology

Used as a selection agent for both prokaryotic and eukaryotic transfected cells. An aminoglycoside similar to gentamycin, G418 is toxic to bacterial, yeast, higher plant and mammalian cells in addition to protozoans and helminths. Transformants survive in G418 supplemented media by expression of an aminoglycoside-modifying enzyme.
Recommended working concentration: 400 µg/ml

Abs.@280 nm	< 0.70
Abs.@570 nm	< 0.10
Expiration Date	REPORT
pH @25 °C	REPORT

Cat. No.	Pk	Pack type
J847-20ML	20 ml	Plastic bottle

Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-54-2
EINECS: 231-162-2
UN: 3264
ADR 8,III

Gd
M.W. 157.25 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid (from Gd_2O_3) ARISTAR® standard for ICP

Gd_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455362A	100 ml	Plastic bottle
455364C	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86679.180	100 ml	Plastic bottle
86679.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

D(+)-Galactose

(2R,3S,4S,5R)-Pentahydroxyhexanal

CAS 59-23-4
EINECS: 200-416-4

$C_6H_{12}O_6$
M.W. 180.16 g/mol
Density: 1.5 g/cm³ (20 °C)
Boiling Pt: 527 °C (1013 hPa)
Melting Pt: 163 to 169 °C
Storage Temperature: Ambient temperature

D(+)-Galactose GPR RECTAPUR®

Specific optical rotation (10 %; water)	79 to 82 °
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.1 %
Loss on drying (100°C)	Max. 1.0 %

Cat. No.	Pk	Pack type
24333.183	100 g	Plastic bottle for solids
24333.296	1 kg	Plastic bottle for solids

VWR CHEMICALS D(+)-Galactose, high purity

Purity	99.0
Specific Rotation (2%, Water 5 Hrs.)	+79 to +81 °

Cat. No.	Pk	Pack type
0637-100G	100 g	Plastic bottle for solids
0637-250G	250 g	Plastic bottle for solids
0637-500G	500 g	Plastic bottle for solids

Gallium standard solution, 10,000 mg/l Ga in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-55-3
EINECS: 231-163-8
UN: 3264
ADR 8,III

Ga
M.W. 69.723 g/mol
Storage Temperature: Ambient temperature

Gln

See L(+)-Glutamine p.201

D(-)-Glucitol

See D(-)-Sorbitol p.462

D-Gluconic acid sodium salt

See Sodium D-gluconate p.441

D(+)-Glucose

CAS 50-99-7

EINECS: 200-075-1

$C_6H_{12}O_6$

M.W. 180.16 g/mol

Density: 1.54 g/cm^3 (20 °C)

Melting Pt: 146 °C

Storage Temperature: Ambient temperature

D(+)-Glucose AnalaR NORMAPUR® analytical reagent

IR Spectrum ..... Passes test
Ignition residue (SO_4) ..... Max. 0.03 %
Water ..... Max. 0.5 %
SO_3 (as SO_2) ..... Max. 5 ppm
As (Arsenic) ..... Max. 0.2 ppm
Fe (Iron) ..... Max. 1 ppm
Specific optical rotation (10 %; water) 52.5 to 53.3 °
Insolubility in water ..... Max. 30 ppm
Cl (Chloride) ..... Max. 25 ppm
SO_4 (Sulphate) ..... Max. 25 ppm
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 0.5 ppm

Cat. No.	Pk	Pack type
101174Y	500 g	Plastic bottle for solids
101175P	1 kg	Plastic bottle for solids
101176K	2,5 kg	Plastic bottle for solids
10117HV	25 kg	Cardboard carton

D(+)-Glucose, anhydrous Ph. Eur., USP

Appearance ..... White crystalline powder
Identification A ..... Passes test Ph. Eur.
Identification B ..... Passes test Ph. Eur.
Identification C ..... Passes test Ph. Eur.
Identification ..... Passes test USP
Solution S ..... Passes test
Appearance of solution ..... Passes test
Colour of solution ..... Passes test USP
Acidity or alkalinity ..... Passes test
Acidity ..... Passes test USP
Dextrin ..... Passes test USP
Soluble starch, sulfites ..... Passes test USP
Spec. opt. rotation (calc. on anhydrous) ..... 52.5 to 53.3 °
Specific optical rotation [USP] ..... 52.6 to 53.2 °
Foreign sugars, soluble starch, dextrins ..... Passes test
Heavy metals (as Pb) ..... Max. 5 ppm
SO_3 (as SO_2) ..... Max. 15 ppm
Cl (Chloride) ..... Max. 125 ppm
SO_4 (Sulphate) ..... Max. 200 ppm
As (Arsenic) ..... Max. 1 ppm
Ba (Barium) ..... Passes test
Ca (Calcium) ..... Max. 200 ppm
Lead in sugars ..... Max. 0.5 ppm
Water ..... Max. 0.5 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
284504S	500 g	Plastic bottle for solids
284508W	5 kg	Bucket (Plastic)
28450BF	25 kg	Bucket (Plastic)

D(+)-Glucose, anhydrous GPR RECTAPUR®

Spec. opt. rotation (calc. on anhydrous) ..... 52.5 to 53.3 °
Loss on drying (100°C) ..... Max. 1.0 %
Ignition residue (SO_4) ..... Max. 0.1 %
Cl (Chloride) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
24379.294	1 kg	Plastic bottle for solids
24379.363	5 kg	Bucket (Plastic)
24379.465	25 kg	Bucket (Plastic)

VWR CHEMICALS D(+)-Glucose for biotechnology

Sugar used as an energy source in specialised media.

Arsenic ..... < 0.00004 %
Chloride ..... <0.01 %
DNase ..... NONE
Heavy Metals (as Pb) ..... <0.0005 %
Identification ..... PASS
Insolubles ..... 0.005 %
Iron ..... < 0.0005 %
Loss on Drying ..... 0.2 %
Protease ..... NONE
Purity ..... 99.8 %
Residue on Ignition ..... 0.02 %
RNase ..... NONE
Specific Rotation ..... +52.5 to +53.0 °
Sulphate & Sulphite ..... < 0.005 %

Cat. No.	Pk	Pack type
0188-500G	500 g	Plastic bottle for solids
0188-1KG	1 kg	Plastic bottle for solids
0188-2.5KG	2,5 kg	Plastic bottle for solids
0188-5KG	5 kg	Bucket (Plastic)
0188-12KG	12 kg	Bucket (Plastic)
0188-50KG	50 kg	Plastic drum

D(+)-Glucose monohydrate

CAS 14431-43-7

EINECS: 200-075-1

$C_6H_{12}O_6.H_2O$

M.W. 198.17 g/mol

Melting Pt: 83 °C

Storage Temperature: Ambient temperature

D(+)-Glucose monohydrate Ph. Eur.

Appearance ..... White crystalline powder
Identification B ..... Passes test
Identification C ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Spec. opt. rotation (calc. on anhydrous) ..... 52.5 to 53.3 °
Foreign sugars, soluble starch, dextrins ..... Passes test
SO_3 (as SO_2) ..... Max. 15 ppm
Cl (Chloride) ..... Max. 125 ppm
SO_4 (Sulphate) ..... Max. 200 ppm
As (Arsenic) ..... Max. 1 ppm
Ba (Barium) ..... Passes test
Ca (Calcium) ..... Max. 200 ppm
Lead in sugars ..... Max. 0.5 ppm
Water ..... 7.0 to 9.5 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
24369.290	1 kg	Plastic bottle for solids
24369.461	25 kg	Bucket (Plastic)

Where applicable, the substance is apyrogenic

D(+)-Glucose monohydrate for biochemistry

Spec. opt. rotation (calc. on anhydrous) ..... 52.5 to 53.3 °
Heavy metals (as Pb) ..... Max. 10 ppm
Maltose ..... Max. 0.2 %
Water ..... 7.0 to 9.5 %

Cat. No.	Pk	Pack type
24371.297	1 kg	Plastic bottle for solids
24371.366	5 kg	Bucket (Plastic)

D(+)-Glucose monohydrate for biotechnology

DNase ..... NONE
Insolubles ..... 0.005 %
Loss on Drying ..... 8 - 9 %
Purity (Anhydrous) ..... 99.5 %
RNase ..... NONE
Specific Rotation ..... +52.6 to +53.2 °

Cat. No.	Pk	Pack type
0643-1KG	1 kg	Plastic bottle for solids
0643-2.5KG	2,5 kg	Bucket (Plastic)

D(+)-Glucose monohydrate, powder TECHNICAL

Water ..... 7.0 to 9.5 %

Cat. No.	Pk	Pack type
24374.366	5 kg	Bucket (Plastic)

D(+)-Glucose 40% aqueous solution

CAS 50-99-7
EINECS: 200-075-1

$C_6H_{12}O_6$
Storage Temperature: Ambient temperature

D(+)-Glucose 40% aqueous solution, ultrapure

Clarity ..... PASS
Glucose ..... 35 - 40 %
Sterility ..... PASS

Cat. No.	Pk	Pack type
E701-100ML	100 ml	Plastic bottle

D(+)-Glucose 20% aqueous solution for biotechnology

Clarity ..... PASS
Sterility ..... PASS

Cat. No.	Pk	Pack type
E545-100ML	100 ml	Plastic bottle

Glucose oxidase

GOD

CAS 9001-37-0
EINECS: 232-601-0
Storage Temperature: -20°C

Glucose oxidase (from Aspergillus niger), high purity

Glucose Oxidase:Catalase Ratio 100:1
Solubility (1%, Water) ..... PASS
Specific Activity ..... 100 U/mg

Cat. No.	Pk	Pack type
0243-50KU	50.000 EU	Glass bottle
0243-100KU	100 KU	Glass bottle
0243-500KU	500 KU	Glass bottle

(S)-(+)-α-Glutamic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

L(+)-α-Glutamic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

L(+)-Glutamic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

(S)-(+)-Glutamic acid sodium salt monohydrate

See Sodium-L(+)-glutamate monohydrate p.441

L(+)-Glutamic acid

(S)-(+)-Glutamic acid , (S)-(+)-2-Aminopentanedioic acid , L(+)-2-Aminopentanedioic acid , (S)-(+)-1-Aminopropane-1,3-dicarboxylic acid , L(+)-1-Aminopropane-1,3-dicarboxylic acid , (S)-(+)-α-Glutamic acid , L(+)-α-Glutamic acid , Glu , E , H-Glu-OH

CAS 56-86-0
EINECS: 200-293-7

$HO_2CCH_2CH_2CH(NH_2)CO_2H$
M.W. 147.13 g/mol
Density: 1.538 g/cm³ (20 °C)
Boiling Pt: 325 °C (1013 hPa)
Melting Pt: 160 °C
Storage Temperature: Ambient temperature

L(+)-Glutamic acid Ph. Eur.

Assay (calculated on dried substance) ..... 98.5 to 100.5 %
Appearance ..... White crystalline powder
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Spec. opt. rotation (calc. on dried) ..... 30.5 to 32.5 °
Ninhydrin-positive substances ..... Passes test
Cl (Chloride) ..... Max. 200 ppm
SO_4 (Sulphate) ..... Max. 300 ppm
NH_4 (Ammonium) ..... Max. 200 ppm
Fe (Iron) ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (105°C) ..... Max. 0.5 %
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
20350.232	250 g	Plastic bottle for solids

L(+)-Glutamic acid, high purity

Animal-free amino acid. Polar. Acidic.

Heavy Metals (as Pb) ..... 0.002 %
Lead ..... 0.001 %
Loss on Drying ..... 0.1 %
Purity (Dried) ..... 98.5 - 101.5 %
Specific Rotation (Dried) ..... +31.5 to +32.5 °

Cat. No.	Pk	Pack type
0421-1KG	1 kg	Plastic bottle for solids

L(+)-α-Glutamic acid

See L(+)-Glutamic acid p.200

(S)-(+)-Glutamic acid

See L(+)-Glutamic acid p.200

L(+)-Glutamine

(S)-(+)-Glutamine , Levoglutamide , Gln , Q , H-Gln-OH

CAS 56-85-9

EINECS: 200-292-1

$C_5H_{10}N_2O_3$

M.W. 146.15 g/mol
Density: 1.5326 g/cm³ (130 °C)
Boiling Pt: 355 °C (1013 hPa)
Melting Pt: 185 to 186 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS L(+)-Glutamine, high purity

Arsenic	< 0.0001 %
Ash	0.1 %
Chloride	<0.02 %
Heavy Metals (as Pb)	<0.001 %
Iron	< 0.002 %
Loss on Drying	0.2 %
Purity	98.5 %
Solubility (10%, 2N HCl)	PASS
Specific Rotation (1 g/25 ml Water)	+6.3 - +7.3 °
Sulphate	< 0.03 %
Thin Layer Chromatography (TLC)	ONE SPOT

Cat. No.	Pk	Pack type
0374-500G	500 g	Plastic bottle for solids
0374-1KG	1 kg	Plastic bottle for solids

L(+)-Glutamine TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
24378.187	100 g	Plastic bottle for solids

(S)-(+)-Glutamine

See L(+)-Glutamine p.201

Glutaraldehyde (30 - < 60%) in aqueous solution

Danger
H301+H331 H314 H335 H334 H317 H400
P280 P285 P273 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 111-30-8
Index 605-022-00-X
EINECS: 203-856-5
UN: 2927
ADR 6.1,II

$C_5H_8O_2$

M.W. 100.12 g/mol
Density: 1.13 g/cm³ (20 °C)
Storage Temperature: 2 - 8°C

VWR CHEMICALS Glutaraldehyde 50% in aqueous solution, proteomics grade

Boiling Range	95 °C
Colour (APHA)	100
Glutaraldehyde	49.0 - 52.0 %
Methanol	1.0 %
pH @25 °C	5.0
Solidification Range	-20 °C
Specific Gravity	1.125 - 1.135

Cat. No.	Pk	Pack type
M155-100ML	100 ml	Plastic bottle
M155-500ML	500 ml	Plastic bottle

Glutaraldehyde (10 - < 30%) in aqueous solution

Danger
H301+H331 H314 H335 H334 H317 H400
P280 P285 P273 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 111-30-8
Index 605-022-00-X
EINECS: 203-856-5
UN: 2927
ADR 6.1,II
Flash Pt: Min. 71 °C

$C_5H_8O_2$

M.W. 100.12 g/mol
Density: 1.06 g/cm³ (20 °C)
Boiling Pt: 101 °C (1013 hPa)
Melting Pt: -6 °C
Storage Temperature: 2 - 8°C

Glutaraldehyde 25% in aqueous solution TECHNICAL

Assay	23 to 27 %

Cat. No.	Pk	Pack type
20879.238	250 ml	Glass bottle

L(-)-Glutathione (reduced form)

L(-)-Glutathione, reduced , GSH

CAS 70-18-8

EINECS: 200-725-4

$C_{10}H_{17}N_3O_6S$

M.W. 307.33 g/mol
Density: 1.475 g/cm³ (20 °C)
Melting Pt: 185 to 195 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS L(-)-Glutathione (reduced form), high purity

Iron	0.002 %
Lead	0.001 %
Loss on Drying	1.0 %
Purity	98.0 %
Specific Rotation	-18.5 to -15.5 °

Cat. No.	Pk	Pack type
0399-50G	50 g	Plastic bottle for solids
0399-250G	250 g	Plastic bottle for solids

L(-)-Glutathione (oxidised form)

GSSG , L(-)-Glutathione, oxidized , Bi(glutathion-S-yl)

CAS 27025-41-8

EINECS: 248-170-7

$C_{20}H_{32}N_6O_{12}S_2$

M.W. 612.64 g/mol
Melting Pt: 185 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS L(-)-Glutathione (oxidised form), high purity

Iron	< 0.002 %
Lead	<0.001 %
Loss on Drying	8.0 %
Purity	95.0 %

Cat. No.	Pk	Pack type
0524-1G	1 g	Glass bottle
0524-5G	5 g	Glass bottle

Glycerin albumen

Storage Temperature: Ambient temperature

Glycerin albumen GURR®

Tissue section adhesive

Cat. No.	Pk	Pack type
361002Y	100 ml	Glass bottle
361004K	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Glycerine

1,2,3-Propanetriol , Glycerol

CAS 56-81-5
EINECS: 200-289-5
Flash Pt: 177 °C (open cup)

$HOCH_2CH(OH)CH_2OH$
M.W. 92.1 g/mol
Density: 1.26 g/cm³ (20 °C)
Boiling Pt: 290 °C (1013 hPa)
Melting Pt: 18.6 °C
Storage Temperature: Ambient temperature

Glycerine 99.5% AnalaR NORMAPUR® analytical reagent, redistilled

Assay	Min. 99.5 %	Appearance of solution (10 % V/V; water)	Passes test
Acidity	Max. 0.0004 meq/g	Alkalinity	Max. 0.0003 meq/g
Colouration	Max. 10 APHA	Density (20/4)	1.257 to 1.265
Acetaldehyde	Max. 10 ppm	Esters of fatty acids (as $C_{15}H_{26}O_6$)	Max. 0.05 %
Glyceraldehyde	Max. 30 ppm	Heavy metals (as Pb)	Max. 1 ppm
Ignition residue (SO_4)	Max. 50 ppm	Ketones (as CH_3COCH_3)	Max. 50 ppm
Water	Max. 0.5 %	Cl (Chloride)	Max. 1 ppm
NH_4 (Ammonium)	Max. 5 ppm	SO_4 (Sulphate)	Max. 5 ppm
As (Arsenic)	Max. 1 ppm	Ba (Barium)	Max. 5 ppm
Fe (Iron)	Max. 1 ppm		

Cat. No.	Pk	Pack type
24388.238	250 ml	Glass bottle
24388.260	500 ml	Plastic bottle
24388.295	1 l	Glass bottle
24388.320	2,5 l	Glass bottle
24388.364	5 l	Plastic bottle
24388.444	20 l	Plastic drum

Glycerine Ph. Eur.

Assay (on anhydrous substance)	98.0 to 101.0 %
Appearance	Clear viscous liquid
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Refractive index (20°C)	1.470 to 1.475
Aldehydes	Max. 10 ppm
Esters	Passes test
Impurity A and related substances	Passes test
Halogenated compounds	Max. 35 ppm
Sugars	Passes test
Cl (Chloride)	Max. 10 ppm
Heavy metals (as Pb)	Max. 5 ppm
Water	Max. 2.0 %
Sulphated ash	Max. 0.01 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
24386.298	1 l	Plastic bottle
24386.367	5 l	Plastic container

Glycerine 98% GPR RECTAPUR®

Assay	Min. 98 %
Density (20/4)	1.257 to 1.265
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.05 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
24387.292	1 l	Plastic bottle
24387.326	2,5 l	Plastic bottle
24387.361	5 l	Plastic container
24387.463	25 l	Plastic drum
24387.554	200 l	Metal drum

Glycerine Electran® Molecular biology grade

Assay	Min. 99.5 %
Appearance	Clear viscous liquid
Identification	Passes test
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Density (20/4)	1.256 to 1.261
Fatty acids	Max. 0.02 %
Organic bound chlorine	Max. 0.0005 %
pH (5 mol/l)	5.5 to 8
Water	Max. 0.5 %
Absorbance (260 nm) (0.5 mol/l)	Max. 0.07
Absorbance (280 nm) (0.5 mol/l)	Max. 0.02
Heavy metals (as Pb)	Max. 0.0005 %
SO_4 (Sulphate)	Max. 0.001 %
As (Arsenic)	Max. 0.0001 %
Cl (Chloride)	Max. 0.0001 %
Fe (Iron)	Max. 0.0005 %
Pb (Lead)	Max. 0.0001 %

Cat. No.	Pk	Pack type
444482V	100 ml	Plastic bottle
444485B	1 l	Plastic bottle

VWR CHEMICALS Glycerine for biotechnology, sterile

Arsenic	< 0.0003 %
DNase	NONE
Heavy Metals (as Pb)	<0.0005 %
Purity (Anhydrous)	99.0 %
Residue on Ignition	0.01 %
RNase	NONE
Specific Gravity	1.2615 - 1.2635
Sterility	PASS

Cat. No.	Pk	Pack type
E520-100ML	100 ml	Plastic bottle

VWR CHEMICALS Glycerine for biotechnology

Arsenic	< 0.0003 %
Chloride	0.001 %
DNase	NONE
Heavy Metals (as Pb)	<0.0005 %
Protease	NONE
Purity (Anhydrous)	99.0 %
Residue on Ignition	0.01 %
RNase	NONE
Specific Gravity Measurement	1.2615 - 1.2635
Sulphate	0.001 %
Water (KF)	1.0 %

Cat. No.	Pk	Pack type
0854-1L	1 l	Plastic bottle
0854-4L	4 l	Bag-in-box (Cubitainer)

VWR CHEMICALS Glycerine, proteomics grade, sterile

Arsenic	< 0.0003 %
Ash	0.01 %
DNase	NONE
Heavy Metals (as Pb)	<0.0005 %
Protease	NONE
Purity (Anhydrous)	99.0 %
RNase	NONE
Specific Gravity	1.250 - 1.265
Sterility	PASS

Cat. No.	Pk	Pack type
M153-100ML	100 ml	Plastic bottle

Glycerine, proteomics grade

Arsenic	< 0.0003 %
Chloride	0.001 %
DNase	NONE
Heavy Metals (as Pb)	<0.0005 %
Protease	NONE
Purity (Anhydrous)	99.0 %
Residue on Ignition	0.01 %
RNase	NONE
Specific Gravity Measurement	1.2615 - 1.2635
Sulfate	0.001 %
Water (KF)	1.0 %

Cat. No.	Pk	Pack type
M152-1L	1 l	Plastic bottle
M152-4L	4 l	Bag-in-box (Cubitainer)

Glycerine TECHNICAL

Assay	Min. 97 %

Cat. No.	Pk	Pack type
24397.296	1 l	Plastic bottle
24397.365	5 l	Plastic bottle
24397.410	10 l	Plastic drum
24397.467	25 l	Plastic drum

Glycerine (> 50%)

CAS 56-81-5

EINECS: 200-289-5

$HOCH_2CH(OH)CH_2OH$

Storage Temperature: Ambient temperature

Glycerine 87% AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 86 %	Acidity	Max. 0.0004 meq/g
Alkalinity	Max. 0.0003 meq/g	Density (20/4)	1.220 to 1.230
Esters of fatty acids (as $C_{15}H_{26}O_6$)	Max. 0.05 %	Glyceraldehyde	Max. 30 ppm
Heavy metals (as Pb)	Max. 1 ppm	Ignition residue (SO_4)	Max. 50 ppm
Cl (Chloride)	Max. 1 ppm	NH_4 (Ammonium)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm	Fe (Iron)	Max. 1 ppm
Water	12 to 14 %		

Cat. No.	Pk	Pack type
24385.295	1 l	Glass bottle

Glycerol 20% sterile

Glycerol 20% sterile for biotechnology

Used as a cryopreservative in bacterial preservation media.

Cat. No.	Pk	Pack type
E550-100ML	100 ml	Plastic bottle

Glycerol

See Glycerine p.202

Glycerol triacetate

See Triacetin (Glycerol triacetate) p.512

Glyceryl triacetate

See Triacetin (Glycerol triacetate) p.512

Glycine (H-Gly-OH)

Aminoacetic acid , H-Gly-OH

CAS 56-40-6

EINECS: 200-272-2

NH_2CH_2COOH

M.W. 75.07 g/mol

Density: 1.64 g/cm³ (20 °C)

Boiling Pt: 181 °C (1013 hPa)

Melting Pt: 83 °C

Storage Temperature: Ambient temperature

Glycine AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.7 %	IR Spectrum	Passes test
pH (20°C; 5 %)	5.9 to 6.3	Ignition residue (SO_4)	Max. 0.05 %
Insolubility in water	Max. 30 ppm	Ninhydrin-positive substances	Max. 0.1 %
Cl (Chloride)	Max. 30 ppm	NH_4 (Ammonium)	Max. 0.02 %
SO_4 (Sulphate)	Max. 25 ppm	Cu (Copper)	Max. 1 ppm
Fe (Iron)	Max. 1 ppm	Pb (Lead)	Max. 1 ppm

Cat. No.	Pk	Pack type
101194M	250 g	Plastic bottle for solids
101196X	1 kg	Plastic bottle for solids
10119CU	5 kg	Plastic bottle for solids
10119FA	25 kg	Bucket (Plastic)

Glycine GPR RECTAPUR® done

Assay	Min. 98 %
Ignition residue (SO_4)	Max. 0.2 %
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.02 %

Cat. No.	Pk	Pack type
24403.298	1 kg	Plastic bottle for solids
24403.367	5 kg	Bucket (Plastic)

Glycine (H-Gly-OH) Electran® Molecular biology grade

Assay	Min. 99.5 %
Appearance	White crystalline powder
Identity (IR)	Passes test
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Absorbance (260 nm) (0.1 mol/l)	Max. 0.01
Absorbance (280 nm) (0.1 mol/l)	Max. 0.01
Heavy metals (as Pb)	Max. 0.001 %
Loss on drying	Max. 0.1 %
pH (5 %)	5.9 to 6.4
NH_4 (Ammonium)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.005 %
As (Arsenic)	Max. 0.0001 %
Cl (Chloride)	Max. 0.004 %
Fe (Iron)	Max. 0.0005 %
Pb (Lead)	Max. 0.0005 %

Cat. No.	Pk	Pack type
444492A	100 g	Plastic bottle
444495D	1 kg	Plastic bottle

Glycine for biotechnology

Abs.@260 nm (2M, Water) 0.05
Abs.@280 nm (2M, Water) 0.05
Chloride ..... 0.01 %
DNase ..... NONE
Heavy Metals (as Pb) ..... < 0.002 %
Loss on Drying ..... 0.2 %
pH (5 %, Water) @25 °C ..... 5.9 - 6.4
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS
Sulphate ..... 0.05 %
Thin Layer Chromatography (TLC) ..... ONE SPOT

Cat. No.	Pk	Pack type
0167-1KG	1 kg	Plastic bottle for solids
0167-5KG	5 kg	Bucket (Plastic)
0167-10KG	10 kg	Bucket (Plastic)
0167-12KG	12 kg	Bucket (Plastic)
0167-50KG	50 kg	Plastic drum

Glycine, proteomics grade

Abs.@280 nm (1 M, Water) 0.10
Chloride ..... 0.01 %
DNase ..... NONE
Heavy Metals (as Pb) ..... <0.002 %
Loss on Drying ..... 0.2 %
pH (5%, Water) @25 °C ..... 5.9 - 6.4
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS
Sulphate ..... 0.05 %
Thin Layer Chromatography (TLC) ..... ONE SPOT

Cat. No.	Pk	Pack type
M103-1KG	1 kg	Plastic bottle for solids
M103-5KG	5 kg	Bucket (Plastic)

Glycogen solution (20 mg/ml)

Glycogen solution (20 mg/ml)

Cat. No.	Pk	Pack type
N632-2X0.5ML	1 Pack	Plastic tube

Glycol

See Ethylene glycol p.181

Glycolethylether

See 1,4-Dioxane p.152

Glyoxal in aqueous solution

Warning
H341 H332 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 107-22-2
Index 605-016-00-7
EINECS: 203-474-9

OHCCHO
M.W. 58.04 g/mol
Density: 1.27 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Glyoxal 40% in aqueous solution, high purity

Acid ..... 2.0 %
Formaldehyde ..... 0.1 %
Glyoxal Content ..... 39.0 - 41.0 %
pH @25 °C ..... 2.0 - 3.5

Cat. No.	Pk	Pack type
0646-1KG	1 kg	Plastic bottle for solids

Glyoxalamine

See Imidazole p.239

Glyoxaline

See Imidazole p.239

Gold (reagents for the analysis of)

Hydroquinone GPR RECTAPUR® p.232
o-Tolidine TECHNICAL p.509

Gold standard solution, 10,000 mg/l Au in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-57-5
EINECS: 231-165-9
UN: 1789
ADR 8,II

Au
M.W. 196.97 g/mol
Storage Temperature: Ambient temperature

Gold standard solution, 10,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP

Au in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455432U	100 ml	Plastic bottle
455434W	500 ml	Plastic bottle

Supplied with certificate of analysis.

Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-57-5
EINECS: 231-165-9
UN: 1789
ADR 8,II

Au
M.W. 196.97 g/mol
Storage Temperature: Ambient temperature

Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP-MS

Au in 10 % HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456742M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP

Au in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455422S	100 ml	Plastic bottle
455424U	500 ml	Plastic bottle

Supplied with certificate of analysis.

Gold standard solution, 1,000 mg/l Au in 2% hydrochloric acid

CAS 7440-57-5
EINECS: 231-165-9
UN: 1789
ADR 8,III

Au
Storage Temperature: Ambient temperature

Gold standard solution, 1,000 mg/l Au in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86662.180	100 ml	Plastic bottle
86662.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Gram's decolorising solution

Danger
H225 H319 H336
EUH066
P210 P280 P305+P351+P338
UN: 1993
ADR 3,II
Flash Pt: -18 °C
Storage Temperature: Ambient temperature

Gram's decolourising solution

Appearance ..... Clear liquid

Cat. No.	Pk	Pack type
9761.5000	5 l	Plastic container

Technical data sheet and instructions available on vwr.com

Gram's decolourising solution

Mixture acetone/propan-2-ol
Solution 50/50 (V/V) ..... Clear liquid

Cat. No.	Pk	Pack type
99502.5000	5 l	Plastic container

Technical data sheet and instructions available on vwr.com

NEW Gram's decolourising solution

Cat. No.	Pk	Pack type
911530ZA	1 l	Plastic bottle

Graphite

CAS 7782-42-5
EINECS: 231-955-3

C
M.W. 12.01 g/mol
Density: 2.09 to 2.23 g/cm³ (20 °C)
Melting Pt: 3827 °C

Graphite, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24489.363	5 kg	Plastic bag

Grease

Storage Temperature: Ambient temperature

Grease TECHNICAL for taps and sockets

Hydrocarbons + lanolin
Identification ..... Passes test

Cat. No.	Pk	Pack type
24513.141	25 g	Plastic tube

Grease, Silicone

See Silicone

Green solvents

A lot of toxic solvents are used in organic synthesis. Some of them are known to be carcinogenic, mutagenic or harmful to reproduction (CMR) and an alternative is advised. "Green" solvents can offer opportunities for enhanced personal and environmental protection and financial savings.

- Methyl-2 THF is derived from corn. It can be used to replace solvents as THF and diethyl ether in Grignard, organometalic and lithiation applications. It can also replace dichloromethane for biphasic reactions
- 1,3-Propane diol is also derived from corn. It has a low toxicity and can be used in polymerisation reactions. Its performance is similar to that of some petroleum derived solvents.
- Dioxalane is a strong solvent, with good solubility in water, hydrophilic and hydrophobic solvents. It can be used as a potential alternative to dichloromethane, methyl ethyl ketone, and DMSO and has applications in polymerisation chemistry as a co-momomer in the synthesis of polyacetals. It will salt out in aqueous solutions easily if water-soluble salts are added.
- Cyclopentyl methyl ether (CPME) is a new alternative to THF, tert-butylmethyl ether, 1,4- Dioxane and diethyl ether. It is characterised by a low water miscibility offering potential advantages in separation, recycling and drying applications. It's relatively stable with acids and caustics and has a higher flash point and lower peroxide formation when compared against those of other commonly used ether solvents.

Description	Page	Pk	Cat. No.
Cyclopentyl methyl ether (CPME) GPR RECTAPUR®	130, 206	1 l	84565.290
Cyclopentyl methyl ether (CPME) GPR RECTAPUR®	130, 206	5 l	84565.360
1,3-Dioxolane GPR RECTAPUR® for synthesis	153, 206	1 l	87135.290
1,3-Dioxolane GPR RECTAPUR® for synthesis	153, 206	5 l	87135.360
(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis	206, 294	1 l	87132.290
(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis	206, 294	2,5 l	87132.320
(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis	206, 294	5 l	87132.360
(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis	206, 294	25 l	87132.460
(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis	206, 294	188 l	87132.550
Perlite for high clarity filtration	206, 349	1 kg	84101.290
Perlite for high clarity filtration	206, 349	5 kg	84101.360
1,3-Propanediol GPR RECTAPUR® for synthesis	206, 391	1 l	87134.290
1,3-Propanediol GPR RECTAPUR® for synthesis	206, 391	5 l	87134.360
Solvent mixture 15	206, 462	1 l	25405.292

Griess' reagent

Warning
H341 H317 H412
P281 P273 P302+P352 P308+P313

Griess' reagent for analysis of nitrite

Identification ..... Passes test

Cat. No.	Pk	Pack type
31023.293	1 l	Glass bottle

Grime Off®

UN: 1824
ADR 8,II

Grime Off®

Cat. No.	Pk	Pack type
35252AC	5 l	Plastic bag

Technical data sheet and instructions available on vwr.com

Guanidine chloride

See Guanidinium chloride p.207

Guanadine hydrochloride

See Guanidinium chloride p.207

Guanidinium chloride

Guanadine hydrochloride , Guanidine chloride

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 50-01-1
Index 607-148-00-0
EINECS: 200-002-3

$NH_2C(=NH)NH_2 \cdot HCl$
M.W. 95.53 g/mol
Density: 1.354 g/cm³ (20 °C)
Melting Pt: 185 °C
Storage Temperature: Ambient temperature

Guanidinium chloride GPR RECTAPUR®

Assay ..... Min. 99 %
IR Spectrum ..... Passes test
Melting point ..... 180 to 188 °C

Cat. No.	Pk	Pack type
284674M	500 g	Plastic bottle for solids

VWR CHEMICALS Guanidinium chloride ACS, technical grade

Suited for purification of nucleic acids or polypeptides from cell sources and inhibition of both RNase and protease activity.

Ammonium Chloride ..... 0.5 %
Ash ..... 0.4 %
Moisture (KF) ..... 0.3 %
Purity ..... 98.0 %

Cat. No.	Pk	Pack type
0118-500G	500 g	Glass bottle
0118-1KG	1 kg	Plastic bottle for solids
0118-5KG	5 kg	Bucket (Plastic)

VWR CHEMICALS Guanidinium chloride for biotechnology

Suited for purification of nucleic acids or polypeptides from cell sources and inhibition of both RNase and protease activity.

Abs.@230 nm (6 M, Water) ..... REPORT
Abs.@260 nm (6 M, Water) 0.03
Arsenic ..... 0.0005 %
DNase ..... NONE
Iron ..... 0.0005 %
Lead ..... 0.0005 %
Melting Point ..... 181 - 187 °C
Protease ..... NONE
Purity ..... 99.5 %
RNase ..... NONE
Solubility (6M, Water) ..... PASS

Cat. No.	Pk	Pack type
0287-100G	100 g	Glass bottle
0287-500G	500 g	Glass bottle

VWR CHEMICALS Guanidinium chloride, proteomics grade

Suited for purification of nucleic acids or polypeptides from cell sources and inhibition of both RNase and protease activity.

Abs.@230 nm (6 M, Water) 0.15
Abs.@260 nm (6 M, Water) 0.03
Arsenic ..... 0.0005 %
DNase ..... NONE
Iron ..... 0.0005 %
Lead ..... 0.0005 %
Melting Point ..... 181 - 187 °C
Protease ..... NONE
Purity ..... 99.5 %
RNase ..... NONE
Solubility (6M, Water) ..... PASS

Cat. No.	Pk	Pack type
M110-100G	100 g	Glass bottle
M110-250G	250 g	Glass bottle
M110-500G	500 g	Glass bottle

Guanidinium chloride in aqueous solution

Warning
H302 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 50-01-1
EINECS: 200-002-3

$NH_2C(=NH)NH_2 \cdot HCl$
Storage Temperature: Ambient temperature

VWR CHEMICALS Guanidinium chloride 8 mol/l in aqueous solution, proteomics grade

A concentrated solution prepared with Biotechnology Grade powder for convenient use in nucleic acid and protein purification procedures.

Conductivity @25 °C (1:100, Water) ..... REPORT
pH @25 °C ..... REPORT
Protease ..... NONE
Reassay Date ..... REPORT
Specific Gravity ..... REPORT

Cat. No.	Pk	Pack type
M113-4L	4 l	Bag-in-box (Cubitainer)

VWR CHEMICALS Guanidinium chloride 8 mol/l in aqueous solution for biotechnology

Absorbance @ 230 nm ..... REPORT
Absorbance @ 260 nm 0.05
Absorbance @ 280 nm 0.15
Conductivity @25 °C (1:100, Water) ..... 8.00 - 10.0 mmhos
pH @25 °C ..... REPORT
Reassay Date ..... REPORT
Specific Gravity ..... 1.1849 - 1.1949 g/ml
Titration ..... 7.5 - 8.5 M

Cat. No.	Pk	Pack type
J842-4L	4 l	Bag-in-box (Cubitainer)

Guanidinium thiocyanate

Guanidine thiocyanate , Guanidinium rhodanide

Warning
H302+H312+H332 H412
EUH032
P261 P273 P302+P352 P304+P340 P309+P311

CAS 593-84-0
Index 615-004-00-3
EINECS: 209-812-1

$NH_2C(=NH)NH_2{\cdot}HSCN$
M.W. 118.16 g/mol
Density: 1.29 g/cm³ (20 °C)
Melting Pt: 118 °C
Storage Temperature: Ambient temperature

Guanidinium thiocyanate for biotechnology

A powerful protein denaturant used to inactivate endogenous RNases during the isolation of RNA from tissues and bacterial cultures.

Abs.@280 nm (70 %, Water) 0.8
Abs.@300 nm (6 M, Water) ..... <0.1
Abs.@410 nm (6 M, Water) ..... <0.1
Copper ..... <0.0001 %
DNase ..... NONE
Identification (IR) ..... PASS
Lead ..... < 0.0001 %
Melting Point ..... 118 - 121 °C
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (70 %, Water 50 °C) ..... PASS

Cat. No.	Pk	Pack type
0380-50G	50 g	Glass bottle
0380-250G	250 g	Glass bottle
0380-500G	500 g	Glass bottle

Guanidinium thiocyanate in aqueous solution

Danger
H301+H331 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P310

CAS 593-84-0
EINECS: 209-812-1

$NH_2C(=NH)NH_2{\cdot}HSCN$
Storage Temperature: Ambient temperature

Guanidinium thiocyanate 6 mol/l in aqueous solution for biotechnology

Colour (APHA) ..... < 20
DNase ..... NONE
pH @ 25 °C ..... 4.5 - 7.0
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
K965-50ML	50 ml	Glass bottle
K965-250ML	250 ml	Glass bottle

Guanosine

CAS 118-00-3
EINECS: 204-227-8

$C_{10}H_{13}N_5O_5$
Storage Temperature: Ambient temperature

Guanosine, ultrapure

Em (252.5 nm, 0.01 M PO_4 buffer) ..... 12500 - 15000

Cat. No.	Pk	Pack type
0193-100G	100 g	Plastic bottle for solids

Guanosine-5'-monophosphate disodium salt

CAS 5550-12-9
EINECS: 226-914-1

$C_{10}H_{12}N_5Na_2O_8P$
Storage Temperature: -20°C

Guanosine-5'-monophosphate disodium salt, ultrapure

Em (252 nm, 0.1 M PO_4 Buffer, pH=7) 13300

Cat. No.	Pk	Pack type
0366-25G	25 g	Plastic bottle for solids
0366-50G	50 g	Plastic bottle for solids

Guanosine 5'-triphosphate trisodium salt hydrate

CAS 36051-31-7
EINECS: 252-847-2

$C_{10}H_{13}N_5Na_3O_{14}P_3.H_2O$
Storage Temperature: -20°C

Guanosine 5'-triphosphate trisodium salt hydrate, ultrapure

Em (252 nm, 0.01 N HCl) 10000
Identification ..... PASS
Moisture (KF) ..... 13 %
Purity ..... 98 %

Cat. No.	Pk	Pack type
0262-50MG	50 mg	Glass bottle
0262-100MG	100 mg	Glass bottle

Gum rosin

See Colophony p.117

Gum tragacanth

Tragacanth , Tragacanth gum

CAS 9000-65-1
EINECS: 232-552-5
Storage Temperature: Ambient temperature

Gum tragacanth Ph. Eur., USP, NF

Appearance ..... Passes test Ph. Eur.
Identification A ..... Passes test USP
Identification A ..... Passes test Ph. Eur.
Identification B ..... Passes test Ph. Eur.
Identification C ..... Passes test Ph. Eur.
Identification D ..... Passes test Ph. Eur.
Acacia ..... Passes test Ph. Eur.
Methylcellulose ..... Passes test Ph. Eur.
Sterculia gum A+B ..... Passes test Ph. Eur.
Foreign matter ..... Max. 1.0 %
Flow time ..... Passes test Ph. Eur.
Total ash ..... Max. 4.0 %
Microbial contamination ..... Passes test Ph. Eur.
Microbial contamination ..... Passes test USP
Pb (Lead) ..... Max. 0.001 %
Heavy metals (as Pb) ..... Max. 20 µg/g
Karaya gum ..... Passes test USP
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
24437.260	500 g	Plastic bottle for solids

Hach® (Reagents for Hach® Instruments)

see Environment

Haemalum (Mayer's)

Warning
H302
P301+P312
Density: 1.05 g/cm³ (20 °C)

Haemalum (Mayer's) GURR® for microscopical staining

IVD

Absorption maximum λ 1 ..... 555 to 565 nm
Absorption maximum λ 2 ..... 430 to 440 nm
Absorbance A1,λ1 (λmax; diluted 1:250; 1 cm) ..... 0.600 to 0.800
Absorbance A2,λ2 (λmax; diluted 1:250; 1 cm) ..... 0.150 to 0.200
Suitability for microscopy (Tissue section) ..... Passes test
Nuclei ..... Intensiva blue
Cytoplasm ..... Grey-blue

Cat. No.	Pk	Pack type
350604T	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Haematoxylin monohydrate

Hydroxybrasilin monohydrate , (6aS,11bR)-7,11b-Dihydro-6H-indeno[2,1-c] chromene-3,4,6a,9,10-pentol monohydrate , (+)-Hematoxylin monohydrate , Natural Black 1

EINECS: 208-237-3

$C_{16}H_{14}O_6.H_2O$
M.W. 320.3 g/mol

Haematoxylin monohydrate GURR® for microscopical staining

IVD

Dye content (spectrophotometric) ..... Min 95 %
Suitability for microscopy ..... Passes test
Absorbance max Lambda (in CH_3CN) ..... 290 to 292 nm
Absorptivity (A 1%/1cm, Lambda max., CH_3CN) ..... 152 to 160
Water ..... Max 6 %
Haematein ..... Max 0.1 %

Cat. No.	Pk	Pack type
340374T	25 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Harris´s Haematoxylin solution

Warning
H302
P301+P312
Storage Temperature: Ambient temperature

NEW Harris´s Haematoxylin solution Q PATH® for microscopy

Ready to use solution for Papanicolaou cytological staining.

IVD

Cat. No.	Pk	Pack type
10047007.	6 x 450 ml	Pouch
10047107.	2,5 l	Plastic bottle
00607131.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product

Haematoxylin Harris GURR® mercury free

IVD

Absorption maximum λ max ..... 555 to 565 nm
Absorbance A (λmax; diluted 1:250; 1 cm) ..... 0.600 to 0.900
Suitability for microscopy (Vaginal smear) ..... Passes test
Nuclei ..... Blue to dark violet
Cyanophilic cytoplasm ..... Blue-green
Eosinophilic cytoplasm ..... Pink

Cat. No.	Pk	Pack type
351945S	1 l	Glass bottle

Technical data sheet and instructions available on vwr.com

Haematoxylin solution Gill II

Warning
H302
P301+P312
Storage Temperature: Ambient temperature

NEW Haematoxylin solution Gill II Q PATH® for microscopy

Ready to use Haematoxylin solution for Papanicolaou cytological staining in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047026.	6 x 450 ml	Pouch
10047126.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Haematoxylin solution Gill III

Warning
H302
P301+P312
Storage Temperature: Ambient temperature

NEW Haematoxylin solution Gill III Q PATH® for microscopy

Ready to use Haematoxlin solution for HES histological staining in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047027.	6 x 450 ml	Pouch
10047127.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Mayer´s Hematoxylin solution

Warning
H302
P301+P312
Storage Temperature: Ambient temperature

NEW Mayer´s Hematoxylin solution Q PATH® for microscopy

Ready to use solution for HES histological staining.

IVD

Cat. No.	Pk	Pack type
10047005.	6 x 450 ml	Pouch
10047105.	2,5 l	Plastic bottle
00607126.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-58-6
EINECS: 231-166-4
UN: 3264
ADR 8,III

Hf
M.W. 178.49 g/mol
Storage Temperature: Ambient temperature

Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) (from HfO_2) ARISTAR® standard for ICP

HfO_2 in HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455442W	100 ml	Plastic bottle
455444B	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86681.180	100 ml	Plastic bottle
86681.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Total hardness indicator

Total hardness indicator, tablets for hardness of water determinations

Minimum weight ..... Min. 0.19 g
Maximum weight ..... Max. 0.21 g
Absorbance ..... Passes test

Cat. No.	Pk	Pack type
160232E	100 Tab.	Plastic bottle

Hazen Colour Standard (0 - < 100 Hazen)

Storage Temperature: Ambient temperature

NEW Hazen Colour Standard 0 Hazen

Cat. No.	Pk	Pack type
84806.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 10 Hazen

Cat. No.	Pk	Pack type
84807.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 25 Hazen

Cat. No.	Pk	Pack type
84808.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 40 Hazen

Cat. No.	Pk	Pack type
84809.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 50 Hazen

Cat. No.	Pk	Pack type
84810.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 80 Hazen

Cat. No.	Pk	Pack type
84811.290	1.000 ml	Plastic bottle

Hazen Colour Standard (100 - 500 Hazen)

Danger
H350
P201 P281 P202 P308+P313 P405 P501
Storage Temperature: Ambient temperature

NEW Hazen Colour Standard 100 Hazen

Cat. No.	Pk	Pack type
84812.290	1 l	Plastic bottle

NEW Hazen Colour Standard 250 Hazen

Cat. No.	Pk	Pack type
84813.290	1.000 ml	Plastic bottle

NEW Hazen Colour Standard 500 Hazen

Cat. No.	Pk	Pack type
84814.290	1.000 ml	Plastic bottle

H-Cys-OH.HCl.H2O

See L(+)-Cysteine hydrochloride monohydrate p.130

Heavy distillate

Danger
H304
P301+P310 P331

CAS 64742-47-8
Index 649-422-00-2
EINECS: 265-149-8

Heavy distillate suitable for use in the testing of petroleum products by IP and ASTM methods

Distillation range (98 %) ..... 185 - 280°C
Aromatics (W/V) ..... Max. 1.0 %

Cat. No.	Pk	Pack type
286735Q	2,5 l	Glass bottle
28673LJ	25 l	Plastic drum

Heavy water

See Deuterium oxide p.138

Hema - Rapid staining set

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

Hema - Rapid staining set GURR® for haematology

IVD

Absorption maximum solution 2 ..... 513 to 518 nm
Absorption maximum solution 3 ..... 630 to 652 nm
Absorbance solution 2 (λmax; diluted 1:250; 1 cm) ..... 0.590 to 0.630
Absorbance solution 3 (λmax; diluted 1:250; 1 cm) ..... 0.800 to 0.860
Suitability for microscopy (Blood smear) ..... Passes test
Nuclei ..... Red-violet
Erythrocytes ..... Pink to brownish
Eosinophilic granules ..... Red to red-brown
Neutrophilic granules ..... Light violet
Lymphocyte cytoplasm ..... Blue

Cat. No.	Pk	Pack type
351042L	1	Glass bottle

Technical data sheet and instructions available on vwr.com

HEPES (4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid)

CAS 7365-45-9
EINECS: 230-907-9

$C_8H_{18}N_2O_4S$
M.W. 238.31 g/mol
Density: 1.448 g/cm³ (20 °C)
Melting Pt: 210 to 215 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS HEPES (4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid), high purity

DNase ..... NONE
Heavy Metals (as Pb) ..... 0.0005 %
Iron ..... 0.0005 %
pKa @20 °C ..... 7.45 - 7.65
Protease ..... NONE
Purity (Dry Basis) ..... 99.0 %
Residue on Ignition ..... 0.2 %
RNase ..... NONE

Cat. No.	Pk	Pack type
0511-50G	50 g	Plastic bottle for solids
0511-250G	250 g	Plastic bottle for solids
0511-1KG	1 kg	Plastic bottle for solids

HEPES (4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid) for biochemistry

Assay ..... Min. 99.5 %
Appearance ..... White powder
Appearance of solution (1 mol/l) ..... Clear colourless liquid
IR Spectrum ..... Passes test
pH (1 %) ..... 4.7 to 5.3
Ignition residue ..... Max. 0.1 %
Water ..... Max. 0.5 %
Cl (Chloride) ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Al (Aluminium) ..... Max. 5 ppm
Cu (Copper) ..... Max. 5 ppm
Fe (Iron) ..... Max. 5 ppm
Na (Sodium) ..... Max. 0.1 %
Pb (Lead) ..... Max. 5 ppm
Absorbance (260 nm) (1 mol/l) ..... Max. 0.05
Absorbance (280 nm) (1 mol/l) ..... Max. 0.04

Cat. No.	Pk	Pack type
441485H	250 g	Plastic bottle for solids
441487M	1 kg	Plastic bottle for solids
44148BC	5 kg	Bucket (Plastic)

HEPES (4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid)

Assay ..... Min. 99.5 %
Cl (Chloride) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 0.05 %
Heavy metals (as Pb) ..... Max. 10 ppm
pH (25 °C; 1 %) ..... 4.7 to 6.0
Water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
441476L	1 kg	Plastic bottle
44147CR	5 kg	Plastic bottle

HEPES buffer solution

CAS 7365-45-9
EINECS: 230-907-9

$C_8H_{18}N_2O_4S$
Storage Temperature: Ambient temperature

VWR CHEMICALS HEPES buffer solution pH 7.3 (1 mol/l)

DNase ..... NONE
pH @37 °C ..... 7.2 - 7.4
Protease ..... NONE
Reassay Date ..... REPORT
RNase ..... NONE

Cat. No.	Pk	Pack type
J848-100ML	100 ml	Plastic bottle
J848-500ML	500 ml	Plastic bottle

HEPES sodium salt

Sodium 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonate

CAS 75277-39-3
EINECS: 278-169-7

$C_8H_{17}N_2NaO_4S$
M.W. 260.29 g/mol
Melting Pt: Min. 105 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS HEPES sodium salt, high purity

DNase ..... NONE
Heavy Metals (as Pb) ..... <0.0001 %
Loss on Drying ..... 3.0 %
pKa ..... 7.45 - 7.65
Protease ..... NONE
Purity (Dry Basis) ..... 99.0 %
RNase ..... NONE
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
0485-25G	25 g	Glass bottle
0485-100G	100 g	Glass bottle
0485-500G	500 g	Glass bottle

HEPPS (EPPS, 4-(2-Hydroxyethyl)-1-piperazinepropanesulphonic acid)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 16052-06-5
EINECS: 240-198-8

$C_9H_{20}N_2O_4S$
Storage Temperature: Ambient temperature

VWR CHEMICALS HEPPS (EPPS, 4-(2-Hydroxyethyl)-1-piperazinepropanesulphonic acid), ultrapure

Heavy Metals (as Pb) ..... 0.0005 %
Melting Point ..... 236 - 239 °C
Moisture (KF) ..... 1 %
Purity ..... 99 %
Solubility (1M, Water) ..... PASS

Cat. No.	Pk	Pack type
J588-100G	100 g	Plastic bottle for solids

Heptane (mixture of isomers)

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 142-82-5
Index 601-008-00-2
EINECS: 205-563-8
UN: 1206
ADR 3,II
Flash Pt: -4 °C

Not to be used as power or heating fuel.

$H_3C(CH_2)_5CH_3$
M.W. 100.2 g/mol
Density: 0.68 g/cm³ (20 °C)
Boiling Pt: 97 to 98 °C (1013 hPa)
Melting Pt: -90.5 °C
Storage Temperature: Ambient temperature

Heptane (mixture of isomers) TECHNICAL

Distillation range ..... 90 to 100 °C
n 20/D ..... 1.390 to 1.405
Evaporation residue ..... Max. 20 ppm

Cat. No.	Pk	Pack type
24548.298	1 l	Glass bottle
24548.367	5 l	Metal can
24548.460	25 l	Metal drum
24548.550	210 l	Metal drum

n-Heptane

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 142-82-5
Index 601-008-00-2
EINECS: 205-563-8
UN: 1206
ADR 3,II
Flash Pt: -4 °C

Not to be used as power or heating fuel.

$H_3C(CH_2)_5CH_3$
M.W. 100.2 g/mol
Density: 0.6838 g/cm³ (20 °C)
Boiling Pt: 98.4 °C (1013 hPa)
Melting Pt: -90.6 °C
Storage Temperature: Ambient temperature

n-Heptane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99 %
Water ..... Max. 0.01 %
Non-volatile residue ..... Max. 0.001 %
Acidity ..... Max. 0.0005 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Transmittance (210 nm) ..... Min. 50 %
Transmittance (220 nm) ..... Min. 80 %
Transmittance (245 nm) ..... Min. 98 %
Conforms to BDH 15288 ..... Passes test

Cat. No.	Pk	Pack type
24539.290	1 l	Glass bottle
24539.320	2,5 l	Glass bottle

NEW n-Heptane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.0 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.01 %
Transmittance (200 nm) ..... Min. 10 %
Transmittance (210 nm) ..... Min. 50 %
Transmittance (220 nm) ..... Min. 80 %
Transmittance (230 nm) ..... Min. 90 %
Transmittance (250 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
84712.290	1 l	Glass bottle
84712.320	2,5 l	Glass bottle

n-Heptane AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	IR Spectrum	Passes test
Acidity	Max. 0.0001 meq/g	Alkalinity	Max. 0.0001 meq/g
Bromine value	Max. 0.5	Colouration	Max. 10 APHA
Density (20/4)	0.681 to 0.685	Distillation range	98 to 99 °C
Substances discoloured by H_2SO_4	Max. 90 APHA	Aromatics (V/V)	Max. 0.1 %
Evaporation residue	Max. 10 ppm	Total S (as SO_4)	Max. 10 ppm
Water	Max. 100 ppm	Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.03 ppm	Ba (Barium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.1 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.02 ppm	Na (Sodium)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.02 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm	Conforms to BDH 10363	Passes test

Cat. No.	Pk	Pack type
24551.290	1 l	Glass bottle
24551.324	2,5 l	Glass bottle
24551.368	5 l	Aluminium bottle
24551.461	25 l	Metal drum

n-Heptane GPR RECTAPUR®

Assay	Min. 99.0 %
IR Spectrum	Passes test
Substances coloured by H_2SO_4	Passes test
Density (20/4)	0.681 to 0.685
Distillation range	97 to 99 °C
Free acidity	Max. 0.0008 meq/g
Substances discoloured by H_2SO_4	Max. 90 APHA
Evaporation residue	Max. 20 ppm
Conforms to BDH 28473	Passes test

Cat. No.	Pk	Pack type
24549.292	1 l	Glass bottle
24549.326	2,5 l	Glass bottle
24549.361	5 l	Metal can
24549.463	25 l	Metal drum
24549.554	200 l	Metal drum

1-Heptanesulphonic acid sodium salt

Sodium 1-heptanesulphonate

CAS 22767-50-6
EINECS: 245-210-5

$H_3C(CH_2)_5CH_2SO_3Na$
M.W. 202.25 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

1-Heptanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC

Assay (calculated on dried substance)	Min. 99 %
IR Spectrum	Passes test
pH (10 %)	5.5 to 7.5
Loss on drying (120°C; under vacuum)	Max. 2.0 %
Transmittance (200 nm) (0.005 mol/l)	Min. 70 %
Transmittance (220 nm) (0.005 mol/l)	Min. 90 %
Transmittance (250 nm) (0.005 mol/l)	Min. 96 %

Cat. No.	Pk	Pack type
152782J	25 g	Plastic bottle for solids
152783K	100 g	Plastic bottle for solids

1-Heptanesulphonic acid sodium salt for ion pair chromatography

Identification ..... Passes test

Cat. No.	Pk	Pack type
20335.104	5 g	Glass bottle

Hexaammonium heptamolybdate tetrahydrate

See Ammonium heptamolybdate tetrahydrate p.34

Hexachloroplatinic (IV) acid hexahydrate

Dihydrogen hexachloroplatinate (IV) hexahydrate , Hydrogen hexachloroplatinate (IV) hexahydrate

Danger
H301 H314 H334 H317
P280 P285 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 18497-13-7
Index 078-009-00-4
EINECS: 241-010-7
UN: 2507
ADR 8,III

$H_2PtCl_6 \cdot 6H_2O$
M.W. 517.9 g/mol
Density: 2.434 g/cm³ (20 °C)
Melting Pt: 150 °C

Hexachloroplatinic (IV) acid hexahydrate GPR RECTAPUR®

Assay (calculated as Pt) ..... Max. 40 %

Cat. No.	Pk	Pack type
277323W	5 g	Plastic bottle

1,2,3,4,7,7- Hexachloro-8,9,10-trinorborn-2-en-5,6-ylenedimethylene sulfite

See Endosulfan (α- and β-isomer) p.169

1,4,5,6,7,7-Hexachloro-8,9,10-trinorborn-5-en-2,3-ylenedimethylene sulfite

See Endosulfan (α- and β-isomer) p.169

n-Hexadecane

Cetane

Danger
H304
P301+P310 P331

CAS 544-76-3
EINECS: 208-878-9
Flash Pt: 135 °C (closed cup)

Not to be used as power or heating fuel.

$H_3C(CH_2)_{14}CH_3$
M.W. 226.45 g/mol
Density: 0.77331 g/cm³ (20 °C)
Boiling Pt: 287 °C (1013 hPa)
Melting Pt: 18 °C
Storage Temperature: Ambient temperature

n-Hexadecane TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24556.230	250 ml	Glass bottle

1-Hexadecylpyridinium chloride monohydrate

See 1-Cetylpyridinium chloride monohydrate p.103

Hexadecyltrimethylammonium bromide

See Cetrimonium bromide p.102

2,4-Hexadienoic acid potassium salt

See Potassium sorbate p.388

(2E,4E)-2,4-Hexadienoic acid potassium salt

See Potassium sorbate p.388

(E,E)-2,4-Hexadienoic acid potassium salt

See Potassium sorbate p.388

2,4-Hexadienoic acid

See Sorbic acid p.462

(2E,4E)-2,4-Hexadienoic acid

See Sorbic acid p.462

(E,E)-2,4-Hexadienoic acid

See Sorbic acid p.462

Hexafluorosilicic acid in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 16961-83-4
Index 009-011-00-5
EINECS: 241-034-8
UN: 1778
ADR 8,II

H_2SiF_6
Density: 1.29 to 1.33 g/cm³ (20 °C)

Hexafluorosilicic acid 31% in aqueous solution TECHNICAL

Assay ..... Min. 31 %

Cat. No.	Pk	Pack type
20313.291	1 l	Plastic bottle

1,1,1,3,3,3-Hexafluoro-2-propanol

HFIP

Danger
H302+H332 H314
P280 P305+P351+P338 P309+P310

CAS 920-66-1
EINECS: 213-059-4
UN: 1760
ADR 8,II
Flash Pt: Min. 100 °C

$C_3H_2F_6O$
M.W. 168.04 g/mol
Density: 1.492 g/cm³ (20 °C)
Boiling Pt: 59.1 °C (1013 hPa)
Melting Pt: -96 °C
Storage Temperature: Ambient temperature

NEW 1,1,1,3,3,3-Hexafluoro-2-propanol for peptide synthesis

Assay (calculated on anhydrous) ..... Min. 99.8 %
Appearance ..... Clear colourless liquid
Colour value ..... Max. 10 APHA
Free amines ..... Max. 0.0002 %
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.02 %
Fe (Iron) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Pb (Lead) ..... Max. 0.1 ppm
Zn (Zinc) ..... Max. 0.1 ppm

Cat. No.	Pk	Pack type
84576.180	100 ml	Glass bottle
84576.260	500 ml	Glass bottle

Hexamethylene

See Cyclohexane p.128

Hexamethylenetetramine

See Methenamine p.288

Hexamine

See Methenamine p.288

Hexane (mixture of isomers)

Danger
H225 H361f H304 H373 H315 H336 H411
P201 P210 P243 P281 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 110-54-3
Index 601-037-00-0
EINECS: 203-777-6
UN: 1208
ADR 3,II
Flash Pt: -22 °C

Not to be used as power or heating fuel.

$H_3C(CH_2)_4CH_3$
M.W. 86.18 g/mol
Density: 0.66 g/cm³ (20 °C)
Boiling Pt: 68 to 70 °C (1013 hPa)
Melting Pt: -95 °C
Storage Temperature: Ambient temperature

Hexane (mixture of isomers) HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 45 %
Acidity ..... Max. 0.001 meq/g
Evaporation residue ..... Max. 5 ppm
Water ..... Max. 0.01 %
Transmittance (200 nm) ..... Min. 10 %
Transmittance (210 nm) ..... Min. 50 %
Transmittance (254 nm) ..... Min. 95 %

Cat. No.	Pk	Pack type
83992.320	2,5 l	Glass bottle

Hexane (mixture of isomers) TECHNICAL

Distillation range ..... 63 to 69 °C
Evaporation residue ..... Max. 20 ppm

Cat. No.	Pk	Pack type
24574.298	1 l	Glass bottle
24574.323	2,5 l	Glass bottle
24574.367	5 l	Metal can
24574.460	25 l	Metal drum
24574.551	200 l	Metal drum

n-Hexane

Danger
H225 H361f H304 H373 H315 H336 H411
P201 P210 P243 P281 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 110-54-3
Index 601-037-00-0
EINECS: 203-777-6
UN: 1208
ADR 3,II
Flash Pt: -22 °C

Not to be used as power or heating fuel.

$H_3C(CH_2)_4CH_3$
M.W. 86.18 g/mol
Density: 0.659 g/cm³ (20 °C)
Boiling Pt: 69 °C (1013 hPa)
Melting Pt: -94.3 °C
Storage Temperature: Ambient temperature

n-Hexane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 97 %
Water	Max. 0.005 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0003 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (210 nm)	Min. 50 %
Transmittance (220 nm)	Min. 80 %
Transmittance (245 nm)	Min. 98 %
Conforms to BDH 15249	Passes test

Cat. No.	Pk	Pack type
24575.290	1 l	Glass bottle
24575.320	2,5 l	Glass bottle
24575.400	4 l	Glass bottle

n-Hexane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 95 %
Acidity or alkalinity	Max. 0.0002 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 0.01 %
Transmittance (200 nm)	Min. 50 %
Transmittance (210 nm)	Min. 70 %
Transmittance (220 nm)	Min. 90 %
Transmittance (230 nm)	Min. 98 %
Transmittance (240 nm)	Min. 99 %

Cat. No.	Pk	Pack type
83991.320	2,5 l	Glass bottle

NEW n-Hexane HiPerSolv CHROMANORM® for preparative HPLC

Filtered 0.2 µm filter, packaged under nitrogen
For preparative HPLC

Assay (calculated on anhydrous)	Min. 97,0 %
Acidity	Max. 0,0003 meq/g
Alkalinity	Max. 0,0002 meq/g
Evaporation residue	Max. 0,0005 %
Water	Max. 0,005 %

Cat. No.	Pk	Pack type
84530.460	25 l	Metal drum
84530.550	200 l	Metal drum

n-Hexane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 98.5 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Colour number (Hazen)	Max. 10
Evaporation residue	Max. 5 ppm
Water	Max. 0.005 %
Fluorescence (as quinine) (365 nm)	Max. 0.001 ppm
Transmittance (195 nm)	Min. 10 %
Transmittance (210 nm)	Min. 50 %
Transmittance (217 nm)	Min. 80 %
Transmittance (225 nm)	Min. 90 %
Transmittance (245 nm)	Min. 98 %

Cat. No.	Pk	Pack type
140096E	2,5 l	Glass bottle

n-Hexane PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99 %
Acidity	Max. 0.0005 meq/g
Evaporation residue (100°C)	Max. 0.0005 %
Water	Max. 0.01 %
Organic residue (as Octanol) (GC/FID)	Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83962.320	2,5 l	Glass bottle

n-Hexane PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 95 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.02 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83661.290	1 l	Glass bottle
83661.320	2,5 l	Glass bottle

n-Hexane AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 95.0 %	IR Spectrum	Passes test
Thiophene	Passes test	Acidity	Max. 0.0002 meq/g
Bromine value	Max. 0.5	Colouration	Max. 10 APHA
Density (20/4)	0.658 to 0.662	Distillation range	68 to 70 °C
Substances discoloured by H_2SO_4	Max. 90 APHA	Benzene	Max. 100 ppm
Evaporation residue	Max. 10 ppm	Total S (as SO_4)	Max. 10 ppm
Water	Max. 100 ppm	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Na (Sodium)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.01 ppm		

Cat. No.	Pk	Pack type
24577.298	1 l	Glass bottle
24577.323	2,5 l	Glass bottle
24577.367	5 l	Aluminium bottle
24577.460	25 l	Metal drum

n-Hexane AnalaR NORMAPUR® analytical reagent

Assay	Min 99.0 %	Identity	Passes test (IR)
Colouration	Max 10 HU	Bromine number	Max 0.5
Substances darkened by sulphuric acid.	Passes test	Non-volatile matter	Max 0.001 %
Acidity (as CH_3COOH)	Max 0.0005 %	Alkalinity (as NH_3)	Max 0.0001 %
Water	Max 0.01 %	Sulphur compounds (total S)	Max 0.005 %
Aromatic hydrocarbons (C_6H_6)	Max 0.01 %	Al (Aluminium)	Max 0.00001 %
Ba (Barium)	Max 0.000002 %	Ca (Calcium)	Max 0.00002 %
Cd (Cadmium)	Max 0.000005 %	Co (Cobalt)	Max 0.000002 %
Cr (Chromium)	Max 0.000002 %	Cu (Copper)	Max 0.000002 %
Fe (Iron)	Max 0.00001 %	K (Potassium)	Max 0.00001 %
Mg (Magnesium)	Max 0.000005 %	Mn (Manganese)	Max 0.000002 %
Na (Sodium)	Max 0.00001 %	Ni (Nickel)	Max 0.000002 %
Pb (Lead)	Max 0.000002 %	Sn (Tin)	Max 0.00001 %
Sr (Strontium)	Max 0.000002 %	Zn (Zinc)	Max 0.00001 %
Water	Max. 0.01 %		

Cat. No.	Pk	Pack type
103876Q	2,5 l	Glass bottle

n-Hexane 99% AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Acidity	Max. 0.0004 meq/g
Colouration	Max. 10 APHA	Density (20/4)	0.658 to 0.662
Benzene	Max. 100 ppm	Evaporation residue	Max. 10 ppm
Thiophene	Max. 1 ppm	Total S (as SO_4)	Max. 50 ppm
Water	Max. 100 ppm	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
24608.296	1 l	Glass bottle
24608.321	2,5 l	Glass bottle

n-Hexane, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Acidity	Max. 0.001 %
Thiophene	Passes test	Colour value	Max. 10 APHA
Assay	Min. 97 %	Residue on evaporation	Max. 0.01 %
Formaldehyde-sulphuric colouration	Max. 90 APHA	Benzene	Max. 0.01 %
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.01 ppm
Pb (Lead)	Max. 0.01 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.01 ppm		

Cat. No.	Pk	Pack type
24603.290	1 l	Glass bottle

n-Hexane, dehydrated (max. 0.01% H_2O) GPR RECTAPUR® for synthesis

Assay	Min. 95 %
Evaporation residue	Max. 50 ppm
Water	Max. 100 ppm

Cat. No.	Pk	Pack type
24580.290	1 l	Glass bottle
24580.324	2,5 l	Glass bottle
24580.460	25 l	Metal drum

n-Hexane TECHNICAL

Assay	Min. 95 %
Distillation range	68 to 70 °C
Benzene	Max. 100 ppm
Evaporation residue	Max. 20 ppm

Cat. No.	Pk	Pack type
24611.297	1 l	Glass bottle
24611.366	5 l	Metal can

1,6-Hexanedioic acid

See Adipic acid p.17

trans,trans-2,4-Hexadienoic acid

See Sorbic acid p.462

trans,trans-2,4-Hexadienoic acid potassium salt

See Potassium sorbate p.388

1-Hexanesulphonic acid sodium salt

Sodium 1-hexanesulphonate

CAS 2832-45-3

EINECS: 220-601-3

$C_6H_{13}O_3SNa$

M.W. 188.22 g/mol

Melting Pt: 300 °C

Storage Temperature: Ambient temperature

1-Hexanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC

Assay (calculated on dried substance)	Min. 99 %
IR Spectrum	Passes test
pH (10 %)	5.5 to 7.5
Loss on drying (120°C; under vacuum)	Max. 2 %
Transmittance (200 nm) (0.005 mol/l)	Min. 70 %
Transmittance (220 nm) (0.005 mol/l)	Min. 90 %
Transmittance (250 nm) (0.005 mol/l)	Min. 98 %

Cat. No.	Pk	Pack type
152792L	25 g	Plastic bottle for solids
152793M	100 g	Plastic bottle for solids

H-Gln-OH

See L(+)-Glutamine p.201

H-Glu-OH

See L(+)-Glutamic acid p.200

H-Gly-OH

See Glycine (H-Gly-OH) p.203

H-His-OH

See L(+)-Histidine p.217

H-His-OH.HCl.H_2O

See L(+)-Histidine monohydrochloride monohydrate p.217

His HCl monohydrate

See L(+)-Histidine monohydrochloride monohydrate p.217

His

See L(+)-Histidine p.217

L(+)-Histidine monohydrochloride monohydrate

His HCl monohydrate , (2S)-(+)-Histidine monohydrochloride monohydrate , (S)-(+)-Histidine monohydrochloride monohydrate , L-3-Imidazol-4-ylalanine monohydrochloride monohydrate , H-His-OH.HCl.H2O

CAS 5934-29-2
EINECS: 211-438-9

$C_6H_9N_3O_2 \cdot HCl \cdot H_2O$
M.W. 209.63 g/mol
Density: 1.485 g/cm³ (20 °C)
Melting Pt: 259 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS L(+)-Histidine monohydrochloride monohydrate FCC

Animal-free amino acid. Polar. Basic.

FCC	CERTIFIED
Identification	PASS
Lead	0.0005 %
Loss on Drying	0.3 %
Purity (Dried)	98.5 - 101.5 %
Residue on Ignition	0.1 %
Specific Rotation (dried)	+8.5 to +10.5 °

Cat. No.	Pk	Pack type
E806-25G	25 g	Plastic bottle for solids
E806-100G	100 g	Plastic bottle for solids

L(+)-Histidine monohydrochloride monohydrate for biochemistry

Assay (calculated on anhydrous)	Min. 99 %
Spec. opt. rot. (50 g/l; HCl 1 N; dried)	8.5 to 10.5 °
Identity (IR)	Passes test
Heavy metals (as Pb)	Max. 10 ppm
Ninhydrin-positive substances	Max. 0.5 %
Loss on drying (150 °C)	7.0 to 10.0 %
NH_4 (Ammonium)	Max. 200 ppm
SO_4 (Sulphate)	Max. 0.03 %
Fe (Iron)	Max. 10 ppm
Sulphated ash	Max. 0.1 %

Cat. No.	Pk	Pack type
24601.180	100 g	Plastic bottle for solids

L(+)-Histidine monohydrochloride monohydrate TECHNICAL

Assay	Min. 99 %

Cat. No.	Pk	Pack type
24583.186	100 g	Plastic bottle for solids

(S)-(+)-Histidine monohydrochloride monohydrate

See L(+)-Histidine monohydrochloride monohydrate p.217

(2S)-(+)-Histidine monohydrochloride monohydrate

See L(+)-Histidine monohydrochloride monohydrate p.217

L(+)-Histidine

(S)-(+)-Histidine , (2S)-(+)-Histidine , His , H , L-3-Imidazol-4-ylalanine , H-His-OH

CAS 71-00-1
EINECS: 200-745-3

$C_6H_9N_3O_2$
M.W. 155.16 g/mol
Density: 1.44 g/cm³ (20 °C)
Melting Pt: 272 to 273 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS L(+)-Histidine, high purity

Arsenic	1.5 ppm
Chloride	0.05 %
Heavy Metals	0.0015 %
Identification	PASS
Iron	0.003 %
Loss on Drying	0.2 %
Purity (Dry Basis)	98.5 - 101.5 %
Residue after Ignition	0.2
Specific Rotation	+12.4 - +14.0 °
Sulfate	0.03 %

Cat. No.	Pk	Pack type
1B1164-100G	100 g	Plastic bottle
1B1164-500G	500 g	Plastic bottle
1B1164-1KG	1 kg	Plastic bottle

L(+)-Histidine TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
24581.134	25 g	Plastic bottle for solids

(S)-(+)-Histidine

See L(+)-Histidine p.217

(2S)-(+)-Histidine

See L(+)-Histidine p.217

Histological fixative - Formalin neutral sodium salt buffered pH 7.0 (25°C)

Danger
H351 H301+H311+H331 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338 P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 3334
ADR 9,

CH_2O
Storage Temperature: Ambient temperature

Histological fixative - Formalin neutral sodium salt buffered pH 7.0 (25°C) GURR®

pH (25°C)	6.9 to 7.1

Cat. No.	Pk	Pack type
351638K	25 l	Metal drum

Technical data sheet and instructions available on vwr.com

Histological Fixative (Formal saline)

Danger
H351 H301+H311+H331 H319 H315 H317
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 50-00-0
Index 605-001-00-5
EINECS: 200-001-8
UN: 3334
ADR 9,

CH_2O
Storage Temperature: Ambient temperature

Histological Fixative (Formal saline) GURR®

Cat. No.	Pk	Pack type
361367L	5 l	Plastic container
361368M	25 l	Metal drum

Technical data sheet and instructions available on vwr.com

AFA histological fixative

Warning
H351 H371 H319 H315 H317
P201 P281 P302+P352 P305+P351+P338 P309+P311
Storage Temperature: Ambient temperature

NEW AFA histological fixative Q PATH®

Alcohol formalin acetic acid ready to use fixative for tissue samples. Pots can be used for storage and transport

IVD

Cat. No.	Pk	Pack type
AFA0150AF59001	32 x 150 ml	Pot
AFA0060AF59001	50 x 60 ml	Pot
AFA0020AF59001	102 x 20 ml	Pot

Each 20 ml Pot contains 5 ml. Each 60 ml Pot contains 20 ml. Each 150 ml Pot contains 60 ml.
IVD registered. Instructions for use on vwr.com- just search for the product.

A.F.A. Histological Fixative containing Eosin Y

Danger
H226 H351 H302+H312+H332 H314 H335
P210 P281 P280 P301+P330+P331 P302+P352
P304+P340 P309+P310
UN: 2920
ADR 8,II
Flash Pt: 25 °C
Density: 0.91 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

A.F.A. Histological Fixative containing Eosin Y GURR®

Acidified alcoholic formalin for the fixation of glycogen

Contains acetic acid, ethanol and formaldehyde

Appearance ..... Orange-rose clear liq.
Identification ..... Passes test

Cat. No.	Pk	Pack type
81024.360	5 l	Plastic bottle

Technical data sheet and instructions available on vwr.com

Histological Fixative A.F.A.

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Flash Pt: 20 °C
Density: 0.88 g/cm³ (20 °C)

Histological Fixative A.F.A. GURR®

Acidified alcoholic formalin for the fixation of glycogen

Contains acetic acid, ethanol and formaldehyde

Density (20/4) ..... 0.860 to 0.870

Cat. No.	Pk	Pack type
81009.362	5 l	Plastic container

Reagent for replacement of Picoformol Bouin

H-Lys-OH.HCl

See L(+)-Lysine monohydrochloride p.270

HMDS

See HMDS (1,1,1,3,3,3-Hexamethyldisilazane) p.218

HMDS (1,1,1,3,3,3-Hexamethyldisilazane)

Danger
H225 H311+H331 H302 H314
P210 P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 999-97-3
EINECS: 213-668-5
UN: 2924
ADR 3,II
Flash Pt: 6 °C

$(CH_3)_3SiNHSi(CH_3)_3$
M.W. 161.4 g/mol
Density: 0.7742 g/cm³ (20 °C)
Boiling Pt: 126 °C (1013 hPa)
Melting Pt: -82 °C
Storage Temperature: Ambient temperature

HMDS (1,1,1,3,3,3-Hexamethyldisilazane) VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152885.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-60-0
EINECS: 231-169-0
UN: 3264
ADR 8,III

Ho
M.W. 164.93 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid (from Ho_2O_3) ARISTAR® standard for ICP

Ho_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455462D	100 ml	Plastic bottle
455464F	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86683.180	100 ml	Plastic bottle
86683.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Holmium (III) oxide

Holmium oxide , Diholmium trioxide

CAS 12055-62-8
EINECS: 235-015-3

Ho_2O_3
M.W. 377.86 g/mol
Density: 3.79 g/cm³ (20 °C)
Boiling Pt: 2600 °C (1013 hPa)
Melting Pt: 2400 °C

Holmium (III) oxide GPR RECTAPUR®

Assay..... Min. 99.9 %

Cat. No.	Pk	Pack type
24591.105	5 g	Glass bottle

Holmium perchlorate solution

NEW Holmium perchlorate solution Reag. Ph. Eur. 1043101

Cat. No.	Pk	Pack type
87841.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

HPLC solvents, HiPerSolv CHROMANORM®

An extensive range of high purity solvents for HPLC applications, filtered at 0,2 µm and bottled under nitrogen. Specified to meet the most demanding requirements of HPLC and LC-UV applications.

- High UV transmission
- Gradient test at 210, 235 and 254 nm
- Low residue on evaporation
- Excellent batch to batch reproducibility

Description	Page	Pk	Cat. No.
Acetonitrile HiPerSolv CHROMANORM® for LC-MS	8, 220	1 l	83640.290
Acetonitrile HiPerSolv CHROMANORM® for LC-MS	8, 220	2,5 l	83640.320
Acetonitrile HiPerSolv CHROMANORM® Reag. Ph. Eur., super gradient grade for HPLC	9, 220	1 l	83639.290
Acetonitrile HiPerSolv CHROMANORM® Reag. Ph. Eur., super gradient grade for HPLC	9, 220	2,5 l	83639.320
Acetonitrile HiPerSolv CHROMANORM® Reag. Ph. Eur., super gradient grade for HPLC	9, 220	5 l	83639.360
Acetonitrile HiPerSolv CHROMANORM®, gradient grade for HPLC	9, 220	1 l	20060.290
Acetonitrile HiPerSolv CHROMANORM®, gradient grade for HPLC	9, 220	2,5 l	20060.320
Acetonitrile HiPerSolv CHROMANORM®, isocratic grade for HPLC	9, 220	2,5 l	20048.320
1-Butanol HiPerSolv CHROMANORM® for HPLC	86, 220	1 l	83633.290
tert-Butyl methyl ether HiPerSolv CHROMANORM® for HPLC	88, 220	1 l	22105.295
Chloroform HiPerSolv CHROMANORM® for HPLC	107, 220	1 l	83626.290
Chloroform HiPerSolv CHROMANORM® for HPLC	107, 220	2,5 l	83626.320
Chloroform HiPerSolv CHROMANORM® for HPLC	107, 220	1 l	83627.290
Chloroform HiPerSolv CHROMANORM® for HPLC	107, 220	2,5 l	83627.320
Cyclohexane HiPerSolv CHROMANORM® for HPLC	128, 220	1 l	83629.290
Cyclohexane HiPerSolv CHROMANORM® for HPLC	128, 220	2,5 l	83629.320
Dichloromethane HiPerSolv CHROMANORM® for HPLC	141, 220	1 l	83623.290
Dichloromethane HiPerSolv CHROMANORM® for HPLC	141, 220	2,5 l	83623.320
Dichloromethane HiPerSolv CHROMANORM® for HPLC	141, 220	1 l	23373.290
Dichloromethane HiPerSolv CHROMANORM® for HPLC	141, 220	2,5 l	23373.320
Diethyl ether HiPerSolv CHROMANORM® for HPLC	145, 220	2,5 l	83624.320
N,N-Dimethylacetamide HiPerSolv CHROMANORM® for HPLC	148, 220	4 l	83636.350
N,N-Dimethylformamide HiPerSolv CHROMANORM® for HPLC	149, 220	2,5 l	83634.320
Ethanol absolute HiPerSolv CHROMANORM® for HPLC	173, 220	1 l	153385E
Ethanol absolute HiPerSolv CHROMANORM® for HPLC	173, 220	2,5 l	153386F
Ethanol 95-97% (v/v) HiPerSolv CHROMANORM® for HPLC	174, 220	1 l	20825.290
Ethanol 95-97% (v/v) HiPerSolv CHROMANORM® for HPLC	174, 220	2,5 l	20825.324
Ethyl acetate HiPerSolv CHROMANORM® for HPLC	179, 220	1 l	83621.290
Ethyl acetate HiPerSolv CHROMANORM® for HPLC	179, 220	2,5 l	83621.320
n-Heptane HiPerSolv CHROMANORM® for HPLC	212, 220	1 l	24539.290
n-Heptane HiPerSolv CHROMANORM® for HPLC	212, 220	2,5 l	24539.320
n-Hexane HiPerSolv CHROMANORM® for HPLC	215, 220	1 l	24575.290
n-Hexane HiPerSolv CHROMANORM® for HPLC	215, 220	2,5 l	24575.320
n-Hexane HiPerSolv CHROMANORM® for HPLC	215, 220	4 l	24575.400
Isohexane (mixture of isomers) HiPerSolv CHROMANORM® for HPLC	220, 254	2,5 l	83622.320
Methanol HiPerSolv CHROMANORM® for LC-MS	220, 285	1 l	83638.290
Methanol HiPerSolv CHROMANORM® for LC-MS	220, 285	2,5 l	83638.320
Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC	220, 286	1 l	20864.290
Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC	220, 286	2,5 l	20864.320
Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC	220, 286	2,5 l	20864.420
Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC	220, 286	4 l	20864.400
Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC	220, 286	5 l	20864.360
Methanol HiPerSolv CHROMANORM®, isocratic grade for HPLC	220, 286	2,5 l	20837.320
Methanol HiPerSolv CHROMANORM®, isocratic grade for HPLC	220, 286	5 l	20837.360
Methanol HiPerSolv CHROMANORM® for HPLC	220, 286	2,5 l	152506X
Methyl ethyl ketone HiPerSolv CHROMANORM® for HPLC	220, 291	1 l	25643.294
Methyl ethyl ketone HiPerSolv CHROMANORM® for HPLC	220, 291	2,5 l	25643.328
n-Pentane 99% HiPerSolv CHROMANORM® for HPLC	220, 345	2,5 l	83632.320
1-Propanol HiPerSolv CHROMANORM® for HPLC	220, 392	2,5 l	83635.320
2-Propanol HiPerSolv CHROMANORM® for HPLC	220, 392	1 l	20880.290
2-Propanol HiPerSolv CHROMANORM® for HPLC	220, 392	2,5 l	20880.320
2-Propanol HiPerSolv CHROMANORM® for HPLC	220, 392	4 l	20880.400
Tetrahydrofuran HiPerSolv CHROMANORM® for HPLC	220, 500	1 l	28559.290
Tetrahydrofuran HiPerSolv CHROMANORM® for HPLC	220, 500	2,5 l	28559.320
Toluene HiPerSolv CHROMANORM® for HPLC	220, 510	1 l	83625.290
Toluene HiPerSolv CHROMANORM® for HPLC	220, 510	2,5 l	83625.320
Triethylamine HiPerSolv CHROMANORM® for HPLC	220, 514	100 ml	28757.184
Triethylamine HiPerSolv CHROMANORM® for HPLC	220, 514	250 ml	28757.230
Water HiPerSolv CHROMANORM® for LC-MS	220, 536	1 l	83645.290
Water HiPerSolv CHROMANORM® for LC-MS	220, 536	2,5 l	83645.320
Water HiPerSolv CHROMANORM®, gradient grade for HPLC	220, 536	2,5 l	83650.320
Water HiPerSolv CHROMANORM® for HPLC	220, 536	1 l	23595.294
Water HiPerSolv CHROMANORM® for HPLC	220, 536	2,5 l	23595.328

HPLC - High purity reagents for HPLC HiperSolv CHROMANORM®

Description	Page	Pk	Cat. No.
Acetic acid glacial for HPLC	2, 221	250 ml	20108.230
Acetic acid glacial for HPLC	2, 221	1 l	20108.292
Ammonia 32% HiPerSolv CHROMANORM® for HPLC	27, 221	100 ml	153312K
1-Heptanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	213, 221	25 g	152782J
1-Heptanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	213, 221	100 g	152783K
1-Hexanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	216, 221	25 g	152792L
1-Hexanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	216, 221	100 g	152793M
1-Octanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	221, 330	25 g	152802T
1-Octanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	221, 330	100 g	152803U
1-Pentanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	221, 346	25 g	152812V
1-Pentanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC	221, 346	100 g	152813W
Potassium dihydrogen phosphate HiPerSolv CHROMANORM® for HPLC	221, 375	500 g	153184U
Sodium chloride HiPerSolv CHROMANORM® for HPLC	221, 434	500 g	153274V
Sodium perchlorate monohydrate HiPerSolv CHROMANORM® for HPLC	221, 453	250 g	153233M
Trifluoroacetic acid 100% HiPerSolv CHROMANORM® for HPLC	221, 515	100 ml	153112E

H-Trp-OH

See L(-)-Tryptophan p.523

Hyamine® 1622

See Benzethonium chloride p.63

Hydrated aluminium silicate

See Bole white (Kaolin) p.70

Standard solution hydrazine 100 mg/ml in water

NEW Standard solution hydrazine 100 mg/ml in water

Cat. No.	Pk	Pack type
87344.180	100 ml	Plastic bottle

Hydrazine sulphate

See Hydrazinium sulphate p.222

Hydrazinium sulphate

Hydrazine sulphate

Danger
H350 H301+H311+H331 H317 H410
P201 P281 P273 P302+P352 P304+P340 P309+P310

CAS 10034-93-2
Index 007-014-00-6
EINECS: 233-110-4
UN: 3288
ADR 6.1,III

$NH_2NH_2 \cdot H_2SO_4$
M.W. 130.13 g/mol
Density: 1.37 g/cm³ (20 °C)
Melting Pt: 254 °C

Hydrazinium sulphate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Heavy metals (As Pb)	Max. 10 ppm
Ignition residue	Max. 0.05 %	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 50 ppm	Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
24696.186	100 g	Plastic bottle for solids

Hydriodic acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 10034-85-2
Index 053-002-01-6
EINECS: 233-109-9
UN: 1787
ADR 8,II

HI
Density: 1.7 g/cm³ (20 °C)
Boiling Pt: 127 °C (1013 hPa)

Hydriodic acid 57% analytical reagent

Stabilised with hypophosphorous acid 0.5 %

Assay	Min. 57.0 %
Heavy metals (as Pb)	Max. 10 ppm
Non-volatile residue	Max. 0.5 %
Cl + Br (as Cl)	Max. 0.03 %
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
20345.267	500 ml	Glass bottle

Hydrobromic acid (40 - < 50%)

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 10035-10-6
Index 035-002-01-8
EINECS: 233-113-0
UN: 1788
ADR 8,II

HBr
M.W. 80.91 g/mol
Density: 1.47 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Hydrobromic acid 47% ARISTAR® for trace analysis

Assay	Min 47.0 %	Non-volatile matter	Max 2 ppm
Phosphate and phosphite (as PO_4)	Max 0.05 ppm	Sulphate and sulphite (as SO_4)	Max 5 ppm
Iodide (I)	Max 10 ppm	Ag (Silver)	Max 0.002 ppm
Al (Aluminium)	Max 0.01 ppm	As (Arsenic)	Max 0.005 ppm
Au (Gold)	Max 0.005 ppm	Ba (Barium)	Max 0.005 ppm
Be (Beryllium)	Max 0.001 ppm	Bi (Bismuth)	Max 0.005 ppm
Ca (Calcium)	Max 0.05 ppm	Cd (Cadmium)	Max 0.002 ppm
Co (Cobalt)	Max 0.001 ppm	Cr (Chromium)	Max 0.001 ppm
Cu (Copper)	Max 0.001 ppm	Fe (Iron)	Max 0.01 ppm
Ga (Gallium)	Max 0.005 ppm	Hg (Mercury)	Max 0.005 ppm
In (Indium)	Max 0.001 ppm	K (Potassium)	Max 0.02 ppm
Li (Lithium)	Max 0.001 ppm	Mg (Magnesium)	Max 0.01 ppm
Mn (Manganese)	Max 0.001 ppm	Mo (Molybdenum)	Max 0.001 ppm
Na (Sodium)	Max 0.05 ppm	Ni (Nickel)	Max 0.002 ppm
Pb (Lead)	Max 0.005 ppm	Sn (Tin)	Max 0.005 ppm
Sr (Strontium)	Max 0.001 ppm	Ti (Titanium)	Max 0.001 ppm
Tl (Thallium)	Max 0.002 ppm	V (Vanadium)	Max 0.001 ppm
Zn (Zinc)	Max 0.005 ppm	Zr (Zirconium)	Max 0.001 ppm

Cat. No.	Pk	Pack type
450073U	500 ml	Glass bottle SAFEBREAK

Hydrobromic acid 47% AnalaR NORMAPUR® analytical reagent

Assay	47.0 to 49.0 %	Heavy metals (As Pb)	Max. 2 ppm
Ignition residue (SO_4)	Max. 50 ppm	Cl (Chloride)	Max. 0.02 %
I + IO_3 (as I)	Max. 20 ppm	PO_4 + PO_3 (as PO_4)	Max. 2 ppm
SO_4 + SO_3 (as SO_4)	Max. 30 ppm	As (Arsenic)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.5 ppm	Cu (Copper)	Max. 0.5 ppm
Fe (Iron)	Max. 1 ppm	Pb (Lead)	Max. 0.5 ppm
Zn (Zinc)	Max. 0.5 ppm		

Cat. No.	Pk	Pack type
20207.294	1 l	Glass bottle

Hydrobromic acid 47% TECHNICAL

Assay	Min. 47 %

Cat. No.	Pk	Pack type
20208.297	1 l	Glass bottle

Hydrocarbon oil index (Standards for determination of)

Standards for determination of hydrocarbon oil index according to the ISO 9377-2 norm in Certan® bottle and ampoule.

- Designed for analysis of water and ground samples, according to the ISO 9377-2 norm
- Delivered with certificate of analysis, reference and batch number of source materials
- Produced in compliance with ISO 9001/2000 norm
- Packed in 1.5 and 4.5 ml Certan® bottles / 1 and 10 ml ampoules

Certan® bottles	Glass ampoules
001 = 1 x 1.5 ml	005 = 5 x 1 ml
002 = 1 x 4.5 ml	010 = 10 x 1 ml
003 = 3 x 1.5 ml	011 = 1 x 10 ml
004 = 3 x 4.5 ml	030 = 3 x 10 ml

NEW Extraction solvent stock solution

Mixture of C10 (20 µl/l) and C40 (20 mg/l)
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87508.001	1 KIT	Glass bottle
87508.002	1 KIT	Glass bottle
87508.003	1 KIT	Glass bottle
87508.004	1 KIT	Glass bottle

NEW Extraction solvent stock solution

Mixture of C10 (20 µl/l) and C40 (20 mg/l)
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87501.005	1 KIT	Glass ampoule
87501.010	10 Ampoules	Glass ampoule
87501.011	1 KIT	Glass ampoule
87501.030	1 KIT	Glass ampoule

NEW Standard mixture of 4 n-alkanes

C10+C20+C30+C40
Concentration : 100 mg/l each
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87506.001	1 KIT	Glass bottle
87506.002	1 KIT	Glass bottle
87506.003	1 KIT	Glass bottle
87506.004	1 KIT	Glass bottle

NEW Standard mixture of 4 n-alkanes

C10+C20+C30+C40
Concentration : 100 mg/l each
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87500.005	1 KIT	Glass ampoule
87500.010	10 Ampoules	Glass ampoule
87500.011	1 KIT	Glass ampoule
87500.030	1 KIT	Glass ampoule

NEW Standard mixture of 16 n-alkanes

C10 - C40 n-alkanes (even numbers) for system performance test measurements
Concentration : 100 mg/l each
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87505.001	1 KIT	Glass bottle
87505.002	1 KIT	Glass bottle
87505.003	1 KIT	Glass bottle
87505.004	1 KIT	Glass bottle

NEW Standard mixture of 16 n-alkanes

C10 - C40 n-alkanes (even numbers) for system performance test measurements
Concentration : 100 mg/l each
Solvent : Hexane - petroleum ether (1:1)

Cat. No.	Pk	Pack type
87499.005	1 KIT	Glass ampoule
87499.010	10 Ampoules	Glass ampoule
87499.011	1 KIT	Glass ampoule
87499.030	1 KIT	Glass ampoule

NEW Standard mixture of mineral oil stock

Additive free diesel and mineral oil
Concentration : 5 000 + 5 000 mg/l
Solvent : Hexane

Cat. No.	Pk	Pack type
87502.001	1 Bottle	Glass bottle
87502.002	1 Bottle	Glass bottle
87502.003	1 KIT	Glass bottle
87502.004	1 KIT	Glass bottle

NEW Standard mixture of mineral oil stock

Additive free diesel and mineral oil
Concentration : 5 000 + 5 000 mg/l
Solvent : Hexane

Cat. No.	Pk	Pack type
87495.005	5 Ampoules	Glass ampoule
87495.010	1 KIT	Glass ampoule
87495.011	1 Ampoule	Glass ampoule
87495.030	1 KIT	Glass ampoule

NEW Quality control standard mixture of mineral oils

Additive free diesel and mineral oil
Concentration : 500 + 500 mg/l
Solvent : Acetone

Cat. No.	Pk	Pack type
87503.001	1 KIT	Glass bottle
87503.002	1 KIT	Glass bottle
87503.003	1 KIT	Glass bottle
87503.004	1 KIT	Glass bottle

NEW Quality control standard mixture of mineral oils

Cat. No.	Pk	Pack type
87497.005	1 KIT	Glass ampoule
87497.010	10 Ampoules	Glass ampoule
87497.011	1 KIT	Glass ampoule
87497.030	1 KIT	Glass ampoule

NEW Cartridge quality control standard mixture

Additive free diesel and mineral oil
Concentration : 1 000 + 1 000 mg/l
Solvent : Hexane

Cat. No.	Pk	Pack type
87504.001	1 KIT	Glass bottle
87504.002	1 KIT	Glass bottle
87504.003	1 KIT	Glass bottle
87504.004	1 KIT	Glass bottle

NEW Cartridge quality control standard mixture

Cat. No.	Pk	Pack type
87498.005	1 KIT	Glass ampoule
87498.010	1 KIT	Glass ampoule
87498.011	1 KIT	Glass ampoule
87498.030	1 KIT	Glass ampoule

NEW Stearyl stearate 2,000 µg/ml in hexane

Cat. No.	Pk	Pack type
87507.001	1 KIT	Glass bottle
87507.002	1 KIT	Glass bottle
87507.003	1 KIT	Glass bottle
87507.004	1 KIT	Glass bottle

NEW Stearyl stearate 2,000 µg/ml in hexane

Cat. No.	Pk	Pack type
87496.005	1 KIT	Glass ampoule
87496.010	1 KIT	Glass ampoule
87496.011	1 KIT	Glass ampoule
87496.030	1 KIT	Glass ampoule

Hydrochloric acid (25 - 38%)

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Density: 1.18 g/cm^3 (20 °C)
Boiling Pt: 110 °C (1013 hPa)
Melting Pt: -30 °C
Storage Temperature: Ambient temperature

Hydrochloric acid 37% ARISTAR® for trace analysis

Assay (acidimetric)	37.0 to 38.0 %	Colouration	Max 10 HU
Evaporation residue	Max 5 ppm	Residue on ignition (as sulphates)	Max 2 ppm
Free chlorine (Cl)	Max 0.5 ppm	Ammonium (NH_4^+)	Max 1 ppm
Phosphate (PO_4)	Max 0.1 ppm	Sulphite (SO_3)	Max 0.5 ppm
Sulphates (SO_4)	Max 0.5 ppm	Bromide (Br^-)	Max 50 ppm
Ag (Silver)	Max 0.01 ppm	Al (Aluminium)	Max 0.05 ppm
As (Arsenic)	Max 0.01 ppm	Au (Gold)	Max 0.02 ppm
B (Boron)	Max 0.01 ppm	Ba (Barium)	Max 0.005 ppm
Be (Beryllium)	Max 0.01 ppm	Bi (Bismuth)	Max 0.02 ppm
Ca (Calcium)	Max 0.1 ppm	Cd (Cadmium)	Max 0.003 ppm
Co (Cobalt)	Max 0.005 ppm	Cr (Chromium)	Max 0.005 ppm
Cu (Copper)	Max 0.002 ppm	Fe (Iron)	Max 0.05 ppm
Ga (Gallium)	Max 0.02 ppm	Hg (Mercury)	Max 0.001 ppm
In (Indium)	Max 0.01 ppm	K (Potassium)	Max 0.01 ppm
Li (Lithium)	Max 0.01 ppm	Mg (Magnesium)	Max 0.02 ppm
Mn (Manganese)	Max 0.005 ppm	Mo (Molybdenum)	Max 0.005 ppm
Na (Sodium)	Max 0.05 ppm	Ni (Nickel)	Max 0.01 ppm
Pb (Lead)	Max 0.002 ppm	Pt (Platinium)	Max 0.01 ppm
Sn (Tin)	Max 0.01 ppm	Sr (Strontium)	Max 0.005 ppm
Ti (Titanium)	Max 0.01 ppm	Tl (Thallium)	Max 0.01 ppm
V (Vanadium)	Max 0.005 ppm	Zn (Zinc)	Max 0.01 ppm
Zr (Zirconium)	Max 0.005 ppm		

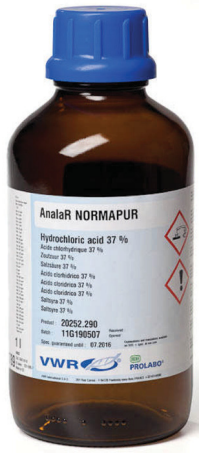
Cat. No.	Pk	Pack type
450021Y	1 l	Glass bottle
450027X	2,5 l	Glass bottle

Hydrochloric acid 37% SpectrosoL®

Al (Aluminium)	Max. 0.05 ppm
Ba (Barium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.50 ppm
Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.2 ppm
Hg (Mercury)	Max. 0.005 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.10 ppm
Mn (Manganese)	Max. 0.01 ppm
Na (Sodium)	Max. 0.50 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
141577U	2,5 l	Glass bottle SAFEBREAK

Hydrochloric acid 37% AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent



Assay	35.0 to 38.0 %	Appearance	Clear colourless liquid
Colouration	Max. 10 APHA	Density (20/4)	1.174 to 1.193
Free chlorine	Max. 0.5 ppm	Ignition residue (SO_4)	Max. 5 ppm
Reducing substances (as O)	Max. 4 ppm	Br (Bromide)	Max. 5 ppm
NH_4 (Ammonium)	Max. 1 ppm	PO_4 (Phosphate)	Max. 0.5 ppm
SO_3 (Sulphite)	Max. 1 ppm	SO_4 (Sulphate)	Max. 1 ppm
Al (Aluminium)	Max. 0.05 ppm	As (Arsenic)	Max. 0.01 ppm
Ba (Barium)	Max. 0.02 ppm	Be (Beryllium)	Max. 0.01 ppm
Bi (Bismuth)	Max. 0.02 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.07 ppm	Cu (Copper)	Max. 0.1 ppm
Fe (Iron)	Max. 0.3 ppm	Ge (Germanium)	Max. 0.02 ppm
Hg (Mercury)	Max. 0.01 ppm	K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.01 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.04 ppm
Pb (Lead)	Max. 0.02 ppm	Sr (Strontium)	Max. 0.01 ppm
Ti (Titanium)	Max. 0.02 ppm	Tl (Thallium)	Max. 0.02 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 0.5 ppm
Zr (Zirconium)	Max. 0.02 ppm	Conforms to BDH 10125	Passes test

Cat. No.	Pk	Pack type
20252.295	1 l	Plastic bottle
20252.244	1 l	Glass bottle SAFEBREAK
20252.290	1 l	Glass bottle
20252.324	2,5 l	Glass bottle SAFEBREAK
20252.335	2,5 l	Plastic bottle
20252.420	2,5 l	Glass bottle
20252.368	5 l	Plastic bottle
20252.448	20 l	Plastic drum

Hydrochloric acid 37% Ph. Eur.

Assay	35.0 to 39.0 %
Appearance	Clear colourless liquid
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Appearance of solution	Passes test
Free chlorine	Max. 4 ppm
SO_4 (Sulphate)	Max. 20 ppm
Heavy metals (as Pb)	Max. 2 ppm
Residue on evaporation	Max. 0.01 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20255.290	1 l	Glass bottle
20255.324	2,5 l	Glass bottle SAFEBREAK
20255.420	2,5 l	Glass bottle
20255.368	5 l	Plastic bottle
20255.440	20 l	Plastic drum

Hydrochloric acid 37% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153627.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrochloric acid 36% SLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
57004879.	220 kg	Plastic drum
52976033.	230 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrochloric acid 36% Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
57843234.	240 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrochloric acid 35% GPR RECTAPUR®

Assay	35 to 38 %
Evaporation residue	Max. 0.02 %
Heavy metals (as Pb)	Max. 10 ppm
Free chlorine	Max. 50 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
20248.240	1 l	Glass bottle SAFEBREAK
20248.295	1 l	Glass bottle
20248.320	2,5 l	Glass bottle SAFEBREAK
20248.364	5 l	Plastic bottle

Hydrochloric acid 35% GPR RECTAPUR®

Assay	35.0 to 38.0 %
Appearance	Clear colourless liquid
Appearance of solution	Passes test
Free bromine or chlorine	Passes test
Evaporation residue	Max. 50 ppm
Free chlorine	Max. 1 ppm
Heavy metals (as Pb)	Max. 1 ppm
Ignition residue (SO_4)	Max. 80 ppm
Br (Bromide)	Max. 5 ppm
SO_3 (Sulphite)	Max. 10 ppm
SO_4 (Sulphate)	Max. 5 ppm
As (Arsenic)	Max. 1 ppm
Fe (Iron)	Max. 2 ppm

Cat. No.	Pk	Pack type
28507BF	2,5 l	Plastic bottle
28507CG	25 l	Plastic drum

Hydrochloric acid 35% TECHNICAL

Assay	Min. 35 %

Cat. No.	Pk	Pack type
20246.298	1 l	Plastic bottle
20246.323	2,5 l	Plastic bottle
20246.367	5 l	Plastic bottle
20246.460	25 l	Plastic drum

Hydrochloric acid 34% NORMATOM® for trace metal analysis

Assay	34 to 37 %	Colouration	Max. 10 APHA
Br (Bromide)	Max. 10 ppm	Total P (Phosphorus)	Max. 0.01 ppm
Total S (Sulphur)	Max. 0.3 ppm	Ag (Silver)	Max. 1 ppb
Al (Aluminium)	Max. 1 ppb	As (Arsenic)	Max. 0.5 ppb
Au (Gold)	Max. 0.5 ppb	B (Boron)	Max. 1 ppb
Ba (Barium)	Max. 0.1 ppb	Be (Beryllium)	Max. 0.1 ppb
Bi (Bismuth)	Max. 0.1 ppb	Ca (Calcium)	Max. 1 ppb
Cd (Cadmium)	Max. 0.1 ppb	Ce (Cerium)	Max. 0.1 ppb
Co (Cobalt)	Max. 0.1 ppb	Cr (Chromium)	Max. 0.5 ppb
Cs (Cesium)	Max. 0.1 ppb	Cu (Copper)	Max. 0.5 ppb
Dy (Dysprosium)	Max. 0.1 ppb	Er (Erbium)	Max. 0.1 ppb
Eu (Europium)	Max. 0.1 ppb	Fe (Iron)	Max. 1 ppb
Ga (Gallium)	Max. 0.1 ppb	Gd (Gadolinium)	Max. 0.1 ppb
Ge (Germanium)	Max. 0.1 ppb	Hf (Hafnium)	Max. 0.1 ppb
Hg (Mercury)	Max. 0.1 ppb	Ho (Holmium)	Max. 0.1 ppb
In (Indium)	Max. 0.1 ppb	K (Potassium)	Max. 1 ppb
La (Lanthanum)	Max. 0.1 ppb	Li (Lithium)	Max. 0.1 ppb
Lu (Lutetium)	Max. 0.1 ppb	Mg (Magnesium)	Max. 0.5 ppb
Mn (Manganese)	Max. 0.1 ppb	Mo (Molybdenum)	Max. 0.1 ppb
Na (Sodium)	Max. 1 ppb	Nb (Niobium)	Max. 0.1 ppb
Nd (Neodymium)	Max. 0.1 ppb	Ni (Nickel)	Max. 0.5 ppb
Pb (Lead)	Max. 0.1 ppb	Pr (Praseodymium)	Max. 0.1 ppb
Rb (Rubidium)	Max 0.1 ppb	Re (Rhenium)	Max. 0.1 ppb
Rh (Rhodium)	Max. 0.5 ppb	Ru (Ruthenium)	Max. 0.1 ppb
Sb (Antimony)	Max. 0.5 ppb	Sc (Scandium)	Max. 0.1 ppb
Se (Selenium)	Max. 1 ppb	Sm (Samarium)	Max. 0.1 ppb
Sn (Tin)	Max. 0.5 ppb	Sr (Strontium)	Max. 0.1 ppb
Tb (Terbium)	Max. 0.1 ppb	Te (Tellurium)	Max. 0.1 ppb
Th (Thorium)	Max. 0.1 ppb	Ti (Titanium)	Max. 0.5 ppb
Tl (Thallium)	Max. 0.1 ppb	Tm (Thulium)	Max. 0.1 ppb
U (Uranium)	Max. 0.1 ppb	V (Vanadium)	Max. 0.5 ppb
W (Tungsten)	Max. 0.1 ppb	Y (Yttrium)	Max. 0.1 ppb
Yb (Ytterbium)	Max. 0.1 ppb	Zn (Zinc)	Max. 1 ppb

Cat. No.	Pk	Pack type
83871.270	500 ml	Plastic bottle
83871.290	1 l	Plastic bottle
83871.330	2,5 l	Plastic bottle

Hydrochloric acid 32% NORMATOM®, ultrapure for trace metal analysis

Assay	Min. 32 %	Ag (Silver)	Max. 10 ppt
Al (Aluminium)	Max. 20 ppt	As (Arsenic)	Max. 50 ppt
Au (Gold)	Max. 100 ppt	B (Boron)	Max. 100 ppt
Ba (Barium)	Max. 10 ppt	Be (Beryllium)	Max. 10 ppt
Bi (Bismuth)	Max. 10 ppt	Ca (Calcium)	Max. 20 ppt
Cd (Cadmium)	Max. 10 ppt	Ce (Cerium)	Max. 10 ppt
Co (Cobalt)	Max. 10 ppt	Cr (Chromium)	Max. 20 ppt
Cs (Cesium)	Max. 10 ppt	Cu (Copper)	Max. 20 ppt
Dy (Dysprosium)	Max. 1 ppt	Er (Erbium)	Max. 1 ppt
Eu (Europium)	Max. 1 ppt	Fe (Iron)	Max. 20 ppt
Ga (Gallium)	Max. 10 ppt	Gd (Gadolinium)	Max. 1 ppt
Hf (Hafnium)	Max. 10 ppt	Hg (Mercury)	Max. 100 ppt
Ho (Holmium)	Max. 1 ppt	In (Indium)	Max. 1 ppt
K (Potassium)	Max. 10 ppt	La (Lanthanum)	Max. 1 ppt
Li (Lithium)	Max. 10 ppt	Lu (Lutetium)	Max. 10 ppt
Mg (Magnesium)	Max. 10 ppt	Mn (Manganese)	Max. 10 ppt
Mo (Molybdenum)	Max. 10 ppt	Na (Sodium)	Max. 10 ppt
Nb (Niobium)	Max. 1 ppt	Nd (Neodymium)	Max. 1 ppt
Ni (Nickel)	Max. 50 ppt	Pb (Lead)	Max. 10 ppt
Pr (Praseodymium)	Max. 1 ppt	Rb (Rubidium)	Max. 10 ppt
Re (Rhenium)	Max. 10 ppt	Rh (Rhodium)	Max. 10 ppt
Ru (Ruthenium)	Max. 10 ppt	Sb (Antimony)	Max. 20 ppt
Sc (Scandium)	Max 10 ppt	Sm (Samarium)	Max. 1 ppt
Sn (Tin)	Max. 20 ppt	Sr (Strontium)	Max. 10 ppt
Tb (Terbium)	Max. 1 ppt	Te (Tellurium)	Max. 1 ppt
Th (Thorium)	Max. 1 ppt	Ti (Titanium)	Max. 20 ppt
Tl (Thallium)	Max. 10 ppt	Tm (Thulium)	Max. 1 ppt
U (Uranium)	Max. 1 ppt	V (Vanadium)	Max. 10 ppt
W (Tungsten)	Max. 10 ppt	Y (Yttrium)	Max. 1 ppt
Yb (Ytterbium)	Max. 1 ppt	Zn (Zinc)	Max. 20 ppt
Zr (Zirconium)	Max. 10 ppt		

Cat. No.	Pk	Pack type
83878.270	500 ml	Plastic bottle
83878.290	1 l	Plastic bottle

Hydrochloric acid 32% AnalaR NORMAPUR® analytical reagent

Assay	31.5 to 33.0 %	Colouration	Max. 10 APHA
Density (20/4)	1.140 to 1.180	Free chlorine	Max. 0.5 ppm
Ignition residue (SO_4)	Max. 5 ppm	Br (Bromide)	Max. 50 ppm
NH_4 (Ammonium)	Max. 1 ppm	PO_4 (Phosphate)	Max. 0.5 ppm
SO_3 (Sulphite)	Max. 1 ppm	SO_4 (Sulphate)	Max. 1 ppm
Al (Aluminium)	Max. 0.05 ppm	As (Arsenic)	Max. 0.01 ppm
Ba (Barium)	Max. 0.02 ppm	Be (Beryllium)	Max. 0.02 ppm
Bi (Bismuth)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.04 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.2 ppm	Ge (Germanium)	Max. 0.05 ppm
Hg (Mercury)	Max. 0.01 ppm	K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.01 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.04 ppm
Pb (Lead)	Max. 0.02 ppm	Sr (Strontium)	Max. 0.01 ppm
Ti (Titanium)	Max. 0.1 ppm	Tl (Thallium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 0.05 ppm
Zr (Zirconium)	Max. 0.1 ppm	Conforms to BDH 10307	Passes test

Cat. No.	Pk	Pack type
20254.296	1 l	Glass bottle
20254.321	2,5 l	Glass bottle
20254.401	2,5 l	Plastic bottle
20254.360	5 l	Plastic bottle

Hydrochloric acid 32% TECHNICAL

Assay 31 to 33 %

Cat. No.	Pk	Pack type
20256.293	1 l	Glass bottle
20256.362	5 l	Plastic bottle
20256.418	10 l	Plastic drum

Hydrochloric acid 30% TECHNICAL

Assay 29 to 31 %

Cat. No.	Pk	Pack type
20251.365	5 l	Plastic bottle
20251.445	20 l	Plastic drum

Hydrochloric acid 25% AnalaR NORMAPUR® analytical reagent

Assay	Min. 25.0 %	Colouration	Max. 10 APHA
Free chlorine	Max. 0.5 ppm	Ignition residue (SO_4)	Max. 5 ppm
Br (Bromide)	Max. 50 ppm	NH_4 (Ammonium)	Max. 1 ppm
SO_3 (Sulphite)	Max. 1 ppm	SO_4 (Sulphate)	Max. 2 ppm
Al (Aluminium)	Max. 0.2 ppm	As (Arsenic)	Max. 0.01 ppm
Ba (Barium)	Max. 0.05 ppm	Be (Beryllium)	Max. 0.02 ppm
Bi (Bismuth)	Max. 0.1 ppm	Ca (Calcium)	Max. 1 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.2 ppm	Ge (Germanium)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm	Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.2 ppm	Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm	Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm	Ti (Titanium)	Max. 0.1 ppm
Tl (Thallium)	Max. 0.05 ppm	V (Vanadium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.1 ppm	Zr (Zirconium)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
20257.296	1 l	Glass bottle
20257.321	2,5 l	Glass bottle
20257.460	25 l	Plastic drum

Hydrochloric acid 25% Reag. Ph. Eur. 1043501

Cat. No.	Pk	Pack type
87842.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrochloric acid 25% Reag. Ph. Eur.

Assay ..... Min. 25.0 %

Cat. No.	Pk	Pack type
84514.360	5 l	Plastic bottle

Hydrochloric acid (10 - < 25%)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Storage Temperature: Ambient temperature

Hydrochloric acid 20%

Assay ..... Min. 20 %

Cat. No.	Pk	Pack type
5853.1000	1 l	Plastic bottle

NEW Hydrochloric acid 10%

Assay	9.5 to 10.5 %
Identification A	Passes test
Identification B	Passes test
Appearance test	Clear colourless liquid
Free chlorine	Max. 1 ppm
SO_4 (Sulphate)	Max. 5 ppm
Heavy metals (as Pb)	Max. 2 ppm
Residue on evaporation	Max. 0.01 %
Residual solvents	Unlikely by manuf.process

Cat. No.	Pk	Pack type
5594.9010	10 l	Plastic drum
5594.9200	210 kg	Plastic drum

Hydrochloric acid (0.5 - 10 mol) concentrated aqueous solution

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Storage Temperature: Ambient temperature

Hydrochloric acid 1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
32050.602	160 ml	Plastic ampoule

NEW Hydrochloric acid 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C; real value 0.2 % accuracy) ..... 0.4998 to 0.5002 mol/l

Cat. No.	Pk	Pack type
84589.600	210 ml	Plastic ampoule

Hydrochloric acid (< 0.5 mol) concentrated aqueous solution

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Density: 1 g/cm^3 (20 °C)
Storage Temperature: Ambient temperature

Hydrochloric acid 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.0995 to 0.1005 mol/l
Conforms to BDH 18037 ..... Passes test

Cat. No.	Pk	Pack type
32051.605	60 ml	Plastic ampoule

Hydrochloric acid (1 - < 10%)

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,III

HCl
M.W. 36.46 g/mol
Density: 1.02 to 1.05 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Hydrochloric acid 1% Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87684.290	1 l	Plastic bottle

Hydrochloric acid (2.87 - < 7.8 mol/l; 2.87 - < 7.8 N)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Density: 1.06 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Hydrochloric acid 6 mol/l (6 N) AVS TITRINORM® Reag. Ph. Eur. 3001500 volumetric solution

Cat. No.	Pk	Pack type
2611.5000	5 l	Plastic container

Hydrochloric acid 5 mol/l (5 N) AVS TITRINORM® volumetric solution

Titer (20°C;real value 0,2 % accuracy) ..... 4.99 to 5.01 mol/l
Conforms to BDH 19066 ..... Passes test

Cat. No.	Pk	Pack type
30018.298	1 l	Plastic bottle
30018.320	2,5 l	Plastic bottle
30018.360	5 l	Plastic bottle
30018.447	20 l	Plastic drum

Hydrochloric acid 4 mol/l (4 N) VOLUSOL® volumetric solution

Titer ..... 3.984 to 4.016 mol/l

Cat. No.	Pk	Pack type
310701.1000	1 l	Plastic bottle
310701.5000	5 l	Plastic bottle

Hydrochloric acid (0.27 - < 2.87 mol/l; 0.27 - < 2.87 N)

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,II

HCl
M.W. 36.46 g/mol
Storage Temperature: Ambient temperature

Hydrochloric acid 2 mol/l (2 N) Reag. Ph. Eur. 1043503

Cat. No.	Pk	Pack type
85848.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 1.996 to 2.004 mol/l

Cat. No.	Pk	Pack type
30025.293	1 l	Plastic bottle
30025.320	2,5 l	Plastic bottle
30025.362	5 l	Plastic container
30025.373	5 l	Bag-in-box (Cubitainer)
30025.407	10 l	Bag-in-box (Cubitainer)

NEW Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution

Cat. No.	Pk	Pack type
190687A	10 l	Bag-in-box (Cubitainer)

Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l
Conforms to BDH 19068 ..... Passes test

Cat. No.	Pk	Pack type
30024.290	1 l	Plastic bottle
30024.324	2,5 l	Plastic bottle
30024.370	5 l	Bag-in-box (Cubitainer)
30024.404	10 l	Bag-in-box (Cubitainer)
30024.415	10 l	Plastic drum
30024.448	20 l	Plastic drum

Hydrochloric acid 0.5 mol/l (0.5 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31954.290	1 l	Plastic bottle
31954.368	5 l	Plastic container
31954.404	10 l	Bag-in-box (Cubitainer)

Hydrochloric acid 0.4 mol/l (0.4 N)

Cat. No.	Pk	Pack type
30021.290	1 l	Plastic bottle

Hydrochloric acid 0.357 mol/l (N/2.8) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.3563 to 0.3577 mol/l

Cat. No.	Pk	Pack type
30023.296	1 l	Plastic bottle

Hydrochloric acid (0.027 - < 0.27 mol/l; 0.027 - < 0.27 N)

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,III

HCl
M.W. 36.46 g/mol
Density: 1.004 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Hydrochloric acid 0.2 mol/l (0.2 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.1996 to 0.2004 mol/l

Cat. No.	Pk	Pack type
31983.290	1 l	Plastic bottle
31983.370	5 l	Bag-in-box (Cubitainer)

Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31955.293	1 l	Plastic bottle
31955.327	2,5 l	Plastic bottle
31955.373	5 l	Bag-in-box (Cubitainer)
31955.407	10 l	Bag-in-box (Cubitainer)
31955.442	20 l	Plastic drum

Hydrochloric acid 0.04 mol/l (0.04 N) AVS TITRINORM® according to the NF T 90-036 standard, volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.03992 to 0.04008 mol/l

Cat. No.	Pk	Pack type
30022.293	1 l	Plastic bottle

NEW Hydrochloric acid 0.03 mol/l (0.03 N) Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87843.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrochloric acid (< 0.027 mol/l; < 0.027 N)

CAS 7647-01-0
Index 017-002-01-X
EINECS: 231-595-7
UN: 1789
ADR 8,III

HCl
M.W. 36.46 g/mol
Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Hydrochloric acid 0.02 mol/l (0.02 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.01996 to 0.02004 mol/l

Cat. No.	Pk	Pack type
98052.296	1 l	Plastic bottle

Hydrochloric acid 0.01 mol/l (0.01 N) Reag. Ph. Eur. 1043504

Cat. No.	Pk	Pack type
85849.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrochloric acid 0.01 mol/l (0.01 N) VOLUSOL® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
311341.1000	1 l	Plastic bottle

Hydrochloric acid (< 1%) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 7647-01-0
EINECS: 231-595-7
UN: 1993
ADR 3,II

HCl
M.W. 36.46 g/mol
Storage Temperature: Ambient temperature

Hydrochloric acid 0.25% in methanol Reag. Ph. Eur. 1053203

Cat. No.	Pk	Pack type
87868.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrochloric acid, brominated

NEW Hydrochloric acid, brominated Reag. Ph. Eur. 1043507

Cat. No.	Pk	Pack type
87845.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydrofluoric acid (45 - < 60%)

Danger
H300+H310+H330 H314
P280 P284 P301+P330+P331 P302+P350 P304+P340
P309+P310

CAS 7664-39-3
Index 009-003-00-1
EINECS: 231-634-8
UN: 1790
ADR 8,II

HF
Storage Temperature: Ambient temperature

Hydrofluoric acid 50% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151083.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrofluoric acid 48% ARISTAR® for trace analysis

Assay	Min 48.0 %	Colouration	Max 10 HU
Residue on ignition (as sulphates)	Max 2 ppm	Non-volatile matter	Max 5 ppm
Hexafluorosilicates (SiF_6)	Max 50 ppm	Nitrate (NO_3^{2-})	Max 5 ppm
Phosphate (PO_4)	Max 0.1 ppm	Sulphite (SO_3)	Max 0.5 ppm
Sulphates (SO_4)	Max 0.5 ppm	Chloride (Cl)	Max 0.2 ppm
Ag (Silver)	Max 0.01 ppm	Al (Aluminium)	Max 0.02 ppm
Au (Gold)	Max 0.02 ppm	B (Boron)	Max 0.01 ppm
Ba (Barium)	Max 0.01 ppm	Be (Beryllium)	Max 0.01 ppm
Bi (Bismuth)	Max 0.05 ppm	Ca (Calcium)	Max 0.1 ppm
Cd (Cadmium)	Max 0.01 ppm	Co (Cobalt)	Max 0.01 ppm
Cr (Chromium)	Max 0.01 ppm	Cu (Copper)	Max 0.01 ppm
Fe (Iron)	Max 0.1 ppm	Ga (Gallium)	Max 0.01 ppm
Ge (Germanium)	Max 0.05 ppm	In (Indium)	Max 0.01 ppm
K (Potassium)	Max 0.05 ppm	Li (Lithium)	Max 0.01 ppm
Mg (Magnesium)	Max 0.05 ppm	Mn (Manganese)	Max 0.02 ppm
Mo (Molybdenum)	Max 0.02 ppm	Na (Sodium)	Max 0.05 ppm
Ni (Nickel)	Max 0.01 ppm	Pb (Lead)	Max 0.01 ppm
Pt (Platinium)	Max 0.05 ppm	As + Sb (Arsenic + Antimoine) (as As)	Max 0.01 ppm
Sn (Tin)	Max 0.05 ppm	Sr (Strontium)	Max 0.02 ppm
Ti (Titanium)	Max 0.05 ppm	Tl (Thallium)	Max 0.05 ppm
V (Vanadium)	Max 0.01 ppm	Zn (Zinc)	Max 0.05 ppm
Zr (Zirconium)	Max 0.05 ppm		

Cat. No.	Pk	Pack type
450094C	500 ml	Plastic bottle

Hydrofluoric acid 48% AnalaR NORMAPUR® analytical reagent

Assay	Min. 48.0 %	Colouration	Max. 10 APHA
SiF_6 (Hexafluorosilicate)	Max. 100 ppm	PO_4 (Phosphate)	Max. 0.5 ppm
$SO_4 + SO_3$ (as SO_4)	Max. 5 ppm	Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.1 ppm	As (Arsenic)	Max. 0.05 ppm
Ba (Barium)	Max. 0.1 ppm	Bi (Bismuth)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Cl (Chloride)	Max. 5 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.3 ppm	K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.02 ppm	Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.05 ppm	Mo (Molybdenum)	Max. 0.05 ppm
Na (Sodium)	Max. 0.2 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm	Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.1 ppm	V (Vanadium)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20319.291	1 l	Plastic bottle

Hydrofluoric acid 47% NORMATOM® for trace metal analysis

Assay	47 to 51 %	Colouration	Max. 10 APHA
Cl (Chloride)	Max. 4 ppm	SiF6 (Hexafluorosilicate)	Max. 20 ppm
Total P (Phosphorus)	Max. 0.05 ppm	Total S (Sulphur)	Max. 0.1 ppm
Ag (Silver)	Max. 0.5 ppb	Al (Aluminium)	Max. 1 ppb
As (Arsenic)	Max. 0.5 ppb	Au (Gold)	Max. 0.2 ppb
B (Boron)	Max. 1 ppb	Ba (Barium)	Max. 0.1 ppb
Be (Beryllium)	Max. 0.1 ppb	Bi (Bismuth)	Max. 0.1 ppb
Ca (Calcium)	Max. 1 ppb	Cd (Cadmium)	Max. 0.1 ppb
Ce (Cerium)	Max. 0.1 ppb	Co (Cobalt)	Max. 0.1 ppb
Cr (Chromium)	Max. 1 ppb	Cs (Cesium)	Max. 0.1 ppb
Cu (Copper)	Max. 0.5 ppb	Dy (Dysprosium)	Max. 0.1 ppb
Er (Erbium)	Max. 0.1 ppb	Eu (Europium)	Max. 0.1 ppb
Fe (Iron)	Max. 1 ppb	Ga (Gallium)	Max. 0.1 ppb
Gd (Gadolinium)	Max. 0.1 ppb	Ge (Germanium)	Max. 0.1 ppb
Hf (Hafnium)	Max. 0.1 ppb	Hg (Mercury)	Max. 1 ppb
Ho (Holmium)	Max. 0.1 ppb	In (Indium)	Max. 0.1 ppb
K (Potassium)	Max. 1 ppb	La (Lanthanum)	Max. 0.1 ppb
Li (Lithium)	Max. 0.1 ppb	Lu (Lutetium)	Max. 0.1 ppb
Mg (Magnesium)	Max. 1 ppb	Mn (Manganese)	Max. 0.1 ppb
Mo (Molybdenum)	Max. 0.1 ppb	Na (Sodium)	Max. 1 ppb
Nb (Niobium)	Max. 0.1 ppb	Nd (Neodymium)	Max. 0.1 ppb
Ni (Nickel)	Max. 0.5 ppb	Pb (Lead)	Max. 0.1 ppb
Pd (Palladium)	Max 0.2 ppb	Pr (Praseodymium)	Max. 0.1 ppb
Pt (Platinum)	Max. 0.2 ppb	Rb (Rubidium)	Max. 0.1 ppb
Re (Rhenium)	Max. 0.1 ppb	Rh (Rhodium)	Max. 0.1 ppb
Ru (Ruthenium)	Max. 0.1 ppb	Sb (Antimony)	Min. 0.2 ppb
Sc (Scandium)	Max. 0.1 ppb	Se (Selenium)	Max. 1 ppb
Sm (Samarium)	Max. 0.1 ppb	Sn (Tin)	Max. 0.5 ppb
Sr (Strontium)	Max. 0.1 ppb	Tb (Terbium)	Max. 0.1 ppb
Te (Tellurium)	Max. 0.1 ppb	Th (Thorium)	Max. 0.1 ppb
Ti (Titanium)	Max. 1 ppb	Tl (Thallium)	Max. 0.1 ppb
Tm (Thulium)	Max. 0.1 ppb	U (Uranium)	Max. 0.1 ppb
V (Vanadium)	Max. 0.1 ppb	W (Tungsten)	Max. 0.5 ppb

Cat. No.	Pk	Pack type
83873.260	500 ml	Plastic bottle

Hydrofluoric acid (30 - < 45%)

Danger
H300+H310+H330 H314
P280 P284 P301+P330+P331 P302+P350 P304+P340
P309+P310

CAS 7664-39-3
Index 009-003-00-1
EINECS: 231-634-8
UN: 1790
ADR 8,II

HF
Storage Temperature: Ambient temperature

Hydrofluoric acid 40% ARISTAR® for trace analysis

Assay	Min 40.0 %	Colouration	Max 10 HU
Non-volatile matter	Max 2 ppm	Hexafluorosilicates (SiF_6)	Max 20 ppm
Phosphate (PO_4)	Max 0.1 ppm	Sulphite (SO_3)	Max 2 ppm
Sulphates (SO_4)	Max 0.5 ppm	Chloride (Cl)	Max 0.5 ppm
Ag (Silver)	Max 0.001 ppm	Al (Aluminium)	Max 0.005 ppm
As (Arsenic)	Max 0.02 ppm	Au (Gold)	Max 0.002 ppm
Ba (Barium)	Max 0.01 ppm	Be (Beryllium)	Max 0.001 ppm
Bi (Bismuth)	Max 0.001 ppm	Ca (Calcium)	Max 0.01 ppm
Cd (Cadmium)	Max 0.002 ppm	Co (Cobalt)	Max 0.002 ppm
Cr (Chromium)	Max 0.001 ppm	Cu (Copper)	Max 0.001 ppm
Fe (Iron)	Max 0.01 ppm	Ga (Gallium)	Max 0.005 ppm
Ge (Germanium)	Max 0.002 ppm	Hg (Mercury)	Max 0.005 ppm
In (Indium)	Max 0.002 ppm	K (Potassium)	Max 0.01 ppm
Li (Lithium)	Max 0.001 ppm	Mg (Magnesium)	Max 0.005 ppm
Mn (Manganese)	Max 0.001 ppm	Mo (Molybdenum)	Max 0.001 ppm
Na (Sodium)	Max 0.01 ppm	Ni (Nickel)	Max 0.001 ppm
Pb (Lead)	Max 0.002 ppm	Sn (Tin)	Max 0.001 ppm
Sr (Strontium)	Max 0.001 ppm	Ti (Titanium)	Max 0.01 ppm
Tl (Thallium)	Max 0.001 ppm	V (Vanadium)	Max 0.001 ppm
Zn (Zinc)	Max 0.005 ppm	Zr (Zirconium)	Max 0.001 ppm

Cat. No.	Pk	Pack type
450034N	500 ml	Plastic bottle

Hydrofluoric acid 40% AnalaR NORMAPUR® analytical reagent

Assay	40.0 to 42.0 %	Heavy metals (as Pb)	Max. 0.5 ppm
Ignition residue (SO_4)	Max. 5 ppm	SiF_6 (Hexafluorosilicate)	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 1 ppm
$SO_4 + SO_3$ (as SO_4)	Max. 5 ppm	Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.05 ppm	As (Arsenic)	Max. 0.05 ppm
Ba (Barium)	Max. 0.1 ppm	Be (Beryllium)	Max. 0.02 ppm
Bi (Bismuth)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.2 ppm	Ge (Germanium)	Max. 0.05 ppm
Li (Lithium)	Max. 0.02 ppm	Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.05 ppm	Mo (Molybdenum)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm	Na (Sodium)	Max. 0.2 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm	Ti (Titanium)	Max. 0.1 ppm
Tl (Thallium)	Max. 0.05 ppm	V (Vanadium)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.05 ppm	Conforms to BDH 10126	Passes test

Cat. No.	Pk	Pack type
20307.290	1 l	Plastic bottle

Hydrofluoric acid 40% GPR RECTAPUR®

Assay	40 to 42 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 100 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
20306.296	1 l	Plastic bottle

Hydrofluoric acid 40% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152779.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrofluoric acid (1 - < 7%)

Danger
H300+H310+H330 H314
P280 P284 P301+P330+P331 P302+P350 P304+P340 P309+P310

CAS 7664-39-3
Index 009-003-00-1
EINECS: 231-634-8
UN: 1790
ADR 8,II

HF
Storage Temperature: Ambient temperature

Hydrofluoric acid 5% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151136.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrogen hexachloroplatinate(IV) hexahydrate

See Hexachloroplatinic (IV) acid hexahydrate p.213

Hydrogen peroxide (40 - 60%)

Danger
H271 H302+H332 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7722-84-1
Index 008-003-00-9
EINECS: 231-765-0
UN: 2014
ADR 5.1,II

H_2O_2
M.W. 34.01 g/mol
Density: 1.19 g/cm³ (20 °C)
Boiling Pt: 126 °C (1013 hPa)
Melting Pt: -40 °C
Storage Temperature: Ambient temperature

Hydrogen peroxide 50% GPR RECTAPUR®

Stabilised with sodium pyrophosphate 30 ppm

Assay	49 to 51 %
Colouration	Max. 10 APHA
Evaporation residue	Max. 0.05 %
Heavy metals (as Pb)	Max. 5 ppm
Total N (Nitrogen)	Max. 20 ppm
Cl (Chloride)	Max. 5 ppm
Ca (Calcium)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm
Mg (Magnesium)	Max. 5 ppm

Cat. No.	Pk	Pack type
23620.292	1 l	Plastic bottle

Hydrogen peroxide (30 - < 40%)

Danger
H271 H302+H332 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7722-84-1
Index 008-003-00-9
EINECS: 231-765-0
UN: 2014
ADR 5.1,II

H_2O_2
M.W. 34.02 g/mol
Density: 1.11 g/cm³ (20 °C)
Boiling Pt: ~ 107 °C (1013 hPa)
Melting Pt: Max. 0 °C
Storage Temperature: Ambient temperature

Hydrogen peroxide 33% TECHNICAL

Assay ..... 31 to 35 %

Cat. No.	Pk	Pack type
23613.297	1 l	Plastic bottle
23613.366	5 l	Plastic bottle
23613.446	20 l	Plastic drum

Hydrogen peroxide 31% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
55316830.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrogen peroxide 31% SLSI Selectipur® for the electronics industry

Unstabilized

Cat. No.	Pk	Pack type
56992000.	520 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Hydrogen peroxide 30% AnalaR NORMAPUR® for trace analysis

Assay	30.0 to 31.0 %	Acidity	Max. 0.0002 meq/g
Colouration	Max. 10 APHA	Evaporation residue	Max. 10 ppm
Total N (Nitrogen)	Max. 3 ppm	Cl (Chloride)	Max. 0.5 ppm
PO_4 (Phosphate)	Max. 1 ppm	SO_4 (Sulphate)	Max. 1 ppm
As (Arsenic)	Max. 0.01 ppm	Cd (Cadmium)	Max. 0.01 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.03 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.03 ppm		

Cat. No.	Pk	Pack type
23615.261	500 ml	Plastic bottle
23615.248	1 l	Plastic bottle
23615.421	2,5 l	Glass bottle SAFEBREAK

Hydrogen peroxide 30% AnalaR NORMAPUR® analytical reagent

Stabilised with sodium pyrophosphate 0.02 %

Assay	Min. 30.0 %	Acidity	Max. 0.0002 meq/g
Colouration	Max. 10 APHA	Evaporation residue	Max. 30 ppm
Heavy metals (as Pb)	Max. 1 ppm	Total N (Nitrogen)	Max. 4 ppm
Cl (Chloride)	Max. 0.5 ppm	PO_4 (Phosphate)	Max. 2 ppm
SO_4 (Sulphate)	Max. 2 ppm	As (Arsenic)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
23619.264	500 ml	Plastic bottle
23619.297	1 l	Plastic bottle
23619.366	5 l	Plastic bottle

Hydrogen peroxide 30% Ph. Eur.

Stabilised

Assay	29.0 to 31.0 %
Appearance	Clear colourless liquid
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Acidity	Passes test
Organic stabilizers	Max. 500 ppm
Non-volatile residue	Max. 2 g/l
Residual solvents	Passes test

Cat. No.	Pk	Pack type
23622.260	500 ml	Plastic bottle
23622.298	1 l	Plastic bottle
23622.330	2,5 l	Plastic bottle
23622.367	5 l	Plastic container
23622.467	25 l	Plastic drum

Hydrogen peroxide (5 - < 8%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7722-84-1
Index 008-003-00-9
EINECS: 231-765-0

H_2O_2
M.W. 34.01 g/mol
Density: 1.022 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Hydrogen peroxide 6% (w/v; 20 vol,) GPR RECTAPUR®

Assay (W/V)	Min. 6.0 %
Density (20/4)	About 1,020
Cl (Chloride)	Max. 20 ppm
Fe (Iron)	Max. 1 ppm

Cat. No.	Pk	Pack type
285175C	2 l	Plastic bottle

Hydrogen peroxide (1 - < 5%)

CAS 7722-84-1
Index 008-003-00-9
EINECS: 231-765-0

H_2O_2
M.W. 34.02 g/mol
Density: 1.01 g/cm³ (20 °C)
Boiling Pt: 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Hydrogen peroxide 3% GPR RECTAPUR®

Assay	2.5 to 3.5 %
Evaporation residue	Max. 0.05 %
Heavy metals (as Pb)	Max. 5 ppm
Cl (Chloride)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
23614.291	1 l	Plastic bottle

Hydrogen tetrachloroaurate (III) trihydrate

See tetra-Chloroauric (III) acid trihydrate p.105

Hydroquinone

1,4-Dihydroxybenzene , Quinol

Danger
H351 H341 H302 H318 H317 H400
P201 P281 P273 P302+P352 P305+P351+P338
P309+P310

CAS 123-31-9
Index 604-005-00-4
EINECS: 204-617-8
UN: 3077
ADR 9,III
Flash Pt: 165 °C

$C_6H_4(OH)_2$
M.W. 110.11 g/mol
Density: 1.332 g/cm³ (20 °C)
Boiling Pt: 285 °C (1013 hPa)
Melting Pt: 172 °C
Storage Temperature: Ambient temperature

Hydroquinone GPR RECTAPUR®

Assay	Min. 99 %
Melting point	170 to 174 °C
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.1 %
Resorcinol	Max. 0.1 %

Cat. No.	Pk	Pack type
24704.298	1 kg	Plastic bottle for solids

4-Hydroxy-4-methyl-2-pentanone

Diacetone alcohol

Danger
H226 H319
P280 P305+P351+P338

CAS 123-42-2
Index 603-016-00-1
EINECS: 204-626-7
UN: 1148
ADR 3,III
Flash Pt: 58 °C

$(CH_3)_2C(OH)CH_2COCH_3$
M.W. 116.16 g/mol
Density: 0.94 g/cm³ (20 °C)
Boiling Pt: 166 °C (1013 hPa)
Melting Pt: -44 °C
Storage Temperature: Ambient temperature

4-Hydroxy-4-methyl-2-pentanone TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
23424.294	1 l	Glass bottle

1-Hydroxy butane

See 1-Butanol p.86

(±)-2-Hydroxy butane

See (±)-2-Butanol p.87

Hydroxy ethane

See Ethanol absolute p.172

Hydroxy methane

See Methanol p.285

Hydroxy methane-D4
See Methanol-[D4] p.287

1-Hydroxy pentane
See 1-Pentanol p.346

1-Hydroxy propane
See 1-Propanol p.392

2-Hydroxy propane
See 2-Propanol p.392

4-Hydroxyaniline
See 4-Aminophenol p.27

Hydroxybenzene
See Phenol p.358

4-Hydroxybenzoic acid methyl ester
See Methyl 4-hydroxybenzoate p.291

2-Hydroxybenzoic acid
See Salicylic acid p.414

o-Hydroxybenzoic acid
See Salicylic acid p.414

Hydroxybrasilin monohydrate
See Haematoxylin monohydrate p.209

(±)-Hydroxy-1,4-butanedioic acid
See (±)-Malic acid p.277

Hydroxyethyl cellulose

Danger
H301+H311+H331 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 9004-62-0
Storage Temperature: Ambient temperature

VWR CHEMICALS Hydroxyethyl cellulose, high purity

pH (2%, Water) @25 °C ..... 6.0 - 7.0

Cat. No.	Pk	Pack type
K391-100G	100 g	Glass bottle
K391-500G	500 g	Glass bottle

2-Hydroxyethyl mercaptan
See 2-Mercaptoethanol p.281

4-(2-Hydroxyethyl)piperazine-1-ethanesulphonic acid
See HEPES (4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid) p.211

4-Hydroxy-α-(4-hydroxynaphthyl)-α-phenylnaphthalene-1-methanol
See 1-Naphtholbenzeine p.318

Hydroxylamine solution, alcoholic

NEW Hydroxylamine solution, alcoholic Reag. Ph. Eur. 1044301

Cat. No.	Pk	Pack type
87847.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydroxylamine solution, alkaline

NEW Hydroxylamine solution, alkaline Reag. Ph. Eur. 1044302

Cat. No.	Pk	Pack type
87848.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

NEW Hydroxylamine solution, alkaline R1 Reag. Ph. Eur. 1044303

Cat. No.	Pk	Pack type
87849.220	200 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hydroxylammonium chloride
Hydroxylamine hydrochloride , Hydroxylamine HCl

Warning
H351 H302+H312 H373 H319 H315 H317 H400 H290
P201 P281 P273 P302+P352 P305+P351+P338
P309+P310

CAS 5470-11-1
Index 612-123-00-2
EINECS: 226-798-2
UN: 2923
ADR 8,III

$NH_2OH·HCl$
M.W. 69.49 g/mol
Density: 1.67 g/cm³ (20 °C)
Boiling Pt: 306 °C (1013 hPa)
Melting Pt: 151 °C
Storage Temperature: Ambient temperature

Hydroxylammonium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Solubility in alcohol	Passes test
Free acidity	Max. 0.25 meq/g	pH (20°C; 5 %)	2.5 to 3.5
Heavy metals (as Pb)	Max. 5 ppm	Ignition residue (SO_4)	Max. 100 ppm
Insolubility in water	Max. 50 ppm	NH_4 (Ammonium)	Max. 0.1 %
SO_4 (Sulphate)	Max. 20 ppm	As (Arsenic)	Max. 1 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 5 ppm
Pb (Lead)	Max. 5 ppm	Conforms to BDH 10129	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
24708.235	250 g	Plastic bottle for solids
24708.292	1 kg	Plastic bottle for solids

Hydroxylammonium chloride TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24706.238	250 g	Plastic bottle for solids

Hydroxylamine HCl
See Hydroxylammonium chloride p.233

Hydroxylamine hydrochloride

See Hydroxylammonium chloride p.233

Hydroxylamine hydrochloride solution R2

NEW **Hydroxylamine hydrochloride solution R2 Reag. Ph. Eur. 1044304**

Cat. No.	Pk	Pack type
87850.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

1-Hydroxy-3-methylbenzene

See m-Cresol p.126

4-(α-(4-Hydroxy-1-naphthyl)benzylidene)naphthalen-1(4H)-one

See 1-Naphtholbenzeine p.318

2-(6-hydroxy-3-oxo-(3H)-xanthen-9-yl)benzoic acid disodium salt

See Fluorescein disodium salt p.186

2-(6-Hydroxy-3-oxo-(3H)-xanthen-9-yl)benzoic acid

See Fluorescein p.186

β-Hydroxyphenetole

See 2-Phenoxyethanol p.361

ω-Hydroxyphenetole

See 2-Phenoxyethanol p.361

(±)-2-Hydroxypropanoic acid aluminium salt

See Aluminium trilactate p.25

(±)-2-Hydroxypropanoic acid magnesium salt dihydrate

See Magnesium dilactate dihydrate p.274

(±)-2-Hydroxypropanoic acid

See DL-Lactic acid p.260

(±)-2-Hydroxypropionic acid aluminium salt

See Aluminium trilactate p.25

(±)-2-Hydroxypropionic acid magnesium salt dihydrate

See Magnesium dilactate dihydrate p.274

(±)-2-Hydroxypropionic acid

See DL-Lactic acid p.260

8-Hydroxyquinoline

See 8-Quinolinol p.401

(±)-Hydroxysuccinic acid

See (±)-Malic acid p.277

3-Hydroxytoluene

See m-Cresol p.126

Hydroxytricarballylic acid

See Citric acid p.113

Hygromycin B

Danger
H300+H310+H330 H318 H334
P280 P260 P284 P264 P301+P310 P302+P350

CAS 31282-04-9
EINECS: 250-545-5
UN: 3462
ADR 6.1,I

$C_{20}H_{37}N_3O_{13}$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Hygromycin B, ultrapure

An aminoglycoside antibiotic that inhibits protein synthesis in bacteria, fungi and higher eukaryotic cells. Widely used as a selection agent for prokaryotic and eukaryotic cells carrying the hygromycin resistance gene.
Recommended working concentration: 100 µg/ml.

Activity ..... 1 000 U/mg
Purity (HPLC) ..... 80 %

Cat. No.	Pk	Pack type
J607-100MG	100 mg	Glass bottle

Hygromycin B 50 mg/ml aqueous solution

Danger
H330 H301+H311 H318 H334
P280 P260 P284 P301+P310 P305+P351+P338 P310

CAS 31282-04-9
EINECS: 250-545-5
UN: 2810
ADR 6.1,II

$C_{20}H_{37}N_3O_{13}$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Hygromycin B aqueous solution (50 mg/ml), ultrapure

Purity (by HPLC) ..... 80 %
Sterility (Bioburden) ..... PASS

Cat. No.	Pk	Pack type
K547-20ML	20 ml	Vial

Hypophosphorous reagent

NEW **Hypophosphorous reagent Reag. Ph. Eur. 1045200**

Cat. No.	Pk	Pack type
87851.180	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Hypotonic lysis buffer

VWR CHEMICALS Hypotonic lysis buffer

Detergent-free buffer for isolation of proteins from tissue culture cells. Cell lysis and the subsequent isolation of the crude cytoplasmic fraction completed in less than 30 minutes.

Cat. No.	Pk	Pack type
M334-100ML	100 ml	Plastic bottle

ICP, ICP-MS solutions

ICP Blank, Hydrochloric acid

NEW ICP Blank, Hydrochloric acid ARISTAR®

5% HCl in ASTM Type II Water

Cat. No.	Pk	Pack type
456494P	500 ml	Plastic bottle

Supplied with certificate of analysis.

Nitric acid (5 - < 20%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Storage Temperature: Ambient temperature

Nitric acid 5% ARISTAR® for calibration blank in ICP

tested in ISO Guide 34 /ISO17025 accredited laboratory.
5% HNO_3 in ASTM Type II Water
Calibration blank for ICP

Cat. No.	Pk	Pack type
456484N	500 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 1 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element calibration standard 1 in dil. nitric acid ARISTAR® for ICP

19 Elements nitric acid 5 % solution
tested in ISO Guide 34 /ISO17025 accredited laboratory.

19 Elements : 50 mg/l Ag, Ni; 100 mg/l Al; 5 mg/l B, Fe 15 mg/l, Ba, Mn; 1 mg/l Be, Sr; 200 mg/l Bi, In, Pb; 20 mg/l Cd, Co, Cu, Zn; 25 mg/l Cr; 150 mg/l Ga; 40 mg/l Tl

Cat. No.	Pk	Pack type
456452F	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 2 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element calibration standard 2 in dil. nitric acid ARISTAR® for ICP

3 Elements in 2% nitric acid solution
tested in ISO Guide 34 /ISO17025 accredited laboratory.

3 Elements: 250 mg/l Li; 1000 mg/l K,Na

Cat. No.	Pk	Pack type
456462H	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 3 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element calibration standard 3 in dil. nitric acid ARISTAR® for ICP

4 Elements in 2% nitric acid solution
tested in ISO Guide 34 /ISO17025 accredited laboratory.

4 Elements: 1000 mg/l Ba, Ca, Mg, Sr

Cat. No.	Pk	Pack type
456472J	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element quality control standard 2 in dil. nitric acid with a trace of hydrofluoric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element quality control standard 2 in dil. nitric acid with a trace of hydrofluoric acid ARISTAR® for ICP

7 Elements in 5% nitric acid solution with trace of HF
tested in ISO Guide 34 /ISO17025 accredited laboratory.

7 Elements : 50 mg/l Ag; 100 mg/l Al, B, Ba, Na; 1000 mg/l K; 500 mg/l Si

Cat. No.	Pk	Pack type
456432B	100 ml	Plastic bottle
456434D	500 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element quality control standard 3 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element quality control standard 3 in dil. nitric acid ARISTAR® for ICP

15 Elements in 5% nitric acid solution
tested in ISO Guide 34 /ISO17025 accredited laboratory.

15 Elements 100 mg/l : Al, Ba, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, Na, Ti, Zn

Cat. No.	Pk	Pack type
456442D	100 ml	Plastic bottle
456444F	500 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element quality control standard in hydrochloric acid

NEW

Multi-element quality control standard 100 mg/l in hydrochloric acid 10% ARISTAR® for ICP

9 Elements 100 mg/l: Au, Ir, Os, Pd, Pt, Rh, Ru, Sn, Te

Cat. No.	Pk	Pack type
84792.180	100 ml	Plastic bottle

Multi-element quality control standard in nitric acid

NEW

Multi-element quality control standard 1.000 mg/l in nitric acid 4% ARISTAR® for ICP

21 Elements 1000 mg/l: Ag, As, Al, B, Ba, Bi, Cd, Co, Cr, Cu, Fe, Ga, In, Li, Mn, Ni, Pb, Si, Sr, Tl, Zn

Cat. No.	Pk	Pack type
87629.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 2% ARISTAR® for ICP

28 Elements 100 mg/l: Al, Ag, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn

Cat. No.	Pk	Pack type
85006.186	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP

21 Elements 100 mg/l: Al, As, B, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, P, Si, S, Ti, Zn,

Cat. No.	Pk	Pack type
89166.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP

32 Elements 100 mg/l: Ag, Al, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, In, K, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Re, Sb, Si, Sn, Ta, Ti, V, W, Zn

Cat. No.	Pk	Pack type
89186.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP-MS

9 Elements 100 mg/l: Be, I, Bi, Li, Cr, Mg, Co, Pb, U

Cat. No.	Pk	Pack type
88175.230	250 ml	Plastic bottle

NEW

Multi-element quality control standard 10 mg/l in nitric acid 5% ARISTAR® for ICP

22 Elements 10 mg/l: As, Ba, Be, Cd, Co, Cr, Cu, Fe, Al, Mn, Mo, Ni, Pb, Sb, Se, Sn, Ti, Tl, V, U, Te, Zn

Cat. No.	Pk	Pack type
88724.150	50 ml	Plastic bottle

NEW

Multi-element quality control standard 10 mg/l in nitric acid 2% ARISTAR® for ICP-MS

36 Elements: 10 mg/l: Al, Ag, As, B, Ba, Ca, Cd, Ce, Co, Cr, Cu, Dy, Er, Eu, Fe, Gd, Ho, K, La, Li, Lu, Mg, Mn, Na, Nd, Ni, P, Pb, Rb, Se, Sm, Sr, Tl, Tm, V, Zn

Cat. No.	Pk	Pack type
84793.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP

23 Elements 100 mg/l: As, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn

Cat. No.	Pk	Pack type
84790.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP

33 Elements 100 mg/l: Al, Ag, As, B, Ba, Be, Bi, Ca, Cd, Cs, Co, Cr, Cu, Fe, In, K, Li, Mg, Mn, Mo, Na, Ni, Nb, Pb, Rb, Sb, Se, Sr, Ti, Tl, V, U, Zn

Cat. No.	Pk	Pack type
84791.180	100 ml	Plastic bottle

NEW

Multi-element quality control standard 100 mg/l in nitric acid 2% ARISTAR® for ICP

28 Elements 100 mg/l: Al, Ag, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn

Cat. No.	Pk	Pack type
05200.185	100 ml	Plastic bottle

Multi-element quality control standard in nitric acid / hydrofluoric acid

Multi-element quality control standard 100 mg/l, 23 elements in nitric acid 2-5% / hydrofluoric acid < 0.1% ARISTAR® 1 for ICP

23 Elements 5% nitric acid solution with trace of HF

tested in ISO Guide 34 /ISO17025 accredited laboratory.

23 Elements 100 mg/l : As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, P, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn

Cat. No.	Pk	Pack type
456422W	100 ml	Plastic bottle
456424B	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW

Multi-element quality control standard 10 mg/l, 12 elements in nitric acid 2% / hydrofluoric acid < 0.1% ARISTAR® for ICP-MS

12 Elements at 10 mg/l: Hf, Ge, Mo, Nb, Sb, Si, Sn, Ta, Te, Ti, W, Zr

Cat. No.	Pk	Pack type
84794.180	100 ml	Plastic bottle

Multi-element calibration standard 1 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element calibration standard 1 in dil. nitric acid ARISTAR® for ICP-MS

17 Elements in 5% nitric acid solution

tested in ISO Guide 34 /ISO17025 accredited laboratory.

17 Elements 10 mg/ml : Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, Y, Yb

Cat. No.	Pk	Pack type
456622F	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 2 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element calibration standard 2 in dil. nitric acid ARISTAR® for ICP-MS

29 Elements in 5% nitric acid solution

tested in ISO Guide 34 /ISO17025 accredited laboratory.

29 Elements 10 mg/l : Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn

Cat. No.	Pk	Pack type
456502V	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 3 in hydrochloric acid 10%

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311
UN: 1789
ADR 8,II

Multi-element calibration standard 3 in hydrochloric acid 10% ARISTAR® for ICP-MS

10 Elements in 10% Hydrochloric acid solution

tested in ISO Guide 34 /ISO17025 accredited laboratory.

10 Elements 10 mg/l : Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te

Cat. No.	Pk	Pack type
456512A	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element calibration standard 4 in water with a trace of hydrofluoric acid

Multi-element calibration standard 4 in water with a trace of hydrofluoric acid ARISTAR® for ICP-MS

(12 Elements H_2O tr. HF solution)

tested in ISO Guide 34 /ISO17025 accredited laboratory.

12 Elements 10 mg/l : B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr

Cat. No.	Pk	Pack type
456522C	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element quality control standard 1 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element quality control standard 1 in dil. nitric acid ARISTAR® for ICP-MS

9 Elements in 2% nitric acid solution)

tested in ISO Guide 34 /ISO17025 accredited laboratory.

9 Elements 10 mg/l : Be, Bi, Ce, Co, In, Pb, Mg, Ni, U

Cat. No.	Pk	Pack type
456592Q	100 ml	Plastic bottle

Supplied with certificate of analysis.

Multi-element quality control standard 2 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Multi-element quality control standard 2 in dil. nitric acid ARISTAR® for ICP-MS

25 Elements in 5% nitric acid solution

tested in ISO Guide 34 /ISO17025 accredited laboratory.

25 Elements 10 mg/l : Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn

Cat. No.	Pk	Pack type
456602B	100 ml	Plastic bottle

Supplied with certificate of analysis.

Interference check A in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Interference check A in dil. nitric acid ARISTAR® for ICP-MS

11 Elements in 2% nitric acid solution

tested in ISO Guide 34 /ISO17025 accredited laboratory.

Ag	20 µg/ml
As	10 µg/ml
C	20 µg/ml
Cd	10 µg/ml
Cr	20 µg/ml
Cu	20 µg/ml
Mn	20 µg/ml
Ni	20 µg/ml
Se	10 µg/ml
V	20 µg/ml
Zn	10 µg/ml

Cat. No.	Pk	Pack type
456562K	100 ml	Plastic bottle

Supplied with certificate of analysis.

Interference check A in nitric acid 1%

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Interference check A in nitric acid 1% ARISTAR® for ICP-MS

(12 Elements nitric acid 1% solution)

tested in ISO Guide 34 /ISO17025 accredited laboratory.

12 Elements:18000 mg/l Cl; 1000 mg/l Al, K, Mg, P, S; 2000 mg/l C; 3000 mg/l Ca; 2500 mg/l Fe, Na; 20 mg/l Mo, Ti

Cat. No.	Pk	Pack type
456552Y	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tuning solution 1 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Tuning solution 1 in dil. nitric acid ARISTAR® for ICP-MS

8 Components in 2% HNO_3

tested in ISO Guide 34 /ISO17025 accredited laboratory.

8 Elements 100 mg/l : Ba, Be, Cu, In, Li, Mg, Tl, U

Cat. No.	Pk	Pack type
456532E	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tuning solution 2 in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3264
ADR 8,III

Tuning solution 2 in dil. nitric acid ARISTAR® for ICP-MS

13 Components in 2% HNO_3

tested in ISO Guide 34 /ISO17025 accredited laboratory.

13 components 100 mg/l : Ba, Be, Bi, Ce, Cu, Ho, In, Li, Mg, Pb, Tl, U, Y

Cat. No.	Pk	Pack type
456542G	100 ml	Plastic bottle

Supplied with certificate of analysis.

Idranal® VI

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid)… p.162

IEF cathode buffer 20x

IEF cathode buffer 20x, proteomics grade

Optimised for the isolectric focusing step in 2-D electrophoresis.

Cat. No.	Pk	Pack type
M243-4X250ML	1 l	Kit

Immersion oil (contains dibutyl phthalate and chloroparaffin)

Danger
H351 H360Df H410
P281 P273 P308+P313
UN: 3082
ADR 9,III

Restricted to professional users.
Density: 1.31 g/cm³ (20 °C)

Microil Immersion oil GURR®

Refractive value (n 23/e)	1.5175 to 1.5185
Dispersion (g 23/e)	41 to 49
Viscosity (23°C)	150 to 1500 mm2s
Transparency	Passes test
Transmission 400 nm	≥ 60 %
Transmission 500 nm	≥ 95 %
Transmission 600 nm	≥ 95 %
Transmission 760 nm	≥ 95 %
Suitability for microscopy	Passes test

Cat. No.	Pk	Pack type
361042Q	100 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Imidazole

Glyoxaline , 1H-Imidazole , Glyoxalamine

Danger
H361d H302 H314
P201 P281 P301+P330+P331 P304+P340 P309+P310

CAS 288-32-4
EINECS: 206-019-2
UN: 2923
ADR 8,III
Flash Pt: 135 °C

$C_3H_4N_2$
M.W. 68.08 g/mol
Density: 1.18 g/cm³ (20 °C)
Boiling Pt: 255 °C (1013 hPa)
Melting Pt: 89 to 90 °C
Storage Temperature: Ambient temperature

Imidazole GPR RECTAPUR®, extra pure

Suitable for the assay of penicillins

Assay	Min. 99 %
IR Spectrum	Passes test
pH (20°C; 5 %)	9.5 to 10.5
As (Arsenic)	Max. 2 ppm
Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm
Pb (Lead)	Max. 5 ppm
Absorbance (324 nm) (4 %)	Max. 0.6

Cat. No.	Pk	Pack type
286874D	500 g	Plastic bottle for solids

Imidazole GPR RECTAPUR®

Assay	Min. 99.0 %
Melting point	88 to 91 °C
pH (20 °C; 5 %)	9.5 to 10.5
Ignition residue (SO_4)	Max. 0.1 %
Water	Max. 0.5 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
24720.157	50 g	Plastic bottle for solids

VWR CHEMICALS Imidazole for biotechnology

DNase	NONE
Identification	PASS
Insolubles	0.1 %
Melting Point	88 - 92 °C
pH (5 %, Water) @25 °C	9.5 - 10.5
Protease	NONE
Purity	99.0 %
RNase	NONE
Solubility (20%, Water)	PASS

Cat. No.	Pk	Pack type
0527-10G	10 g	Glass bottle
0527-50G	50 g	Glass bottle
0527-100G	100 g	Glass bottle
0527-1KG	1 kg	Plastic bottle for solids

VWR CHEMICALS Imidazole, proteomics grade

DNase	NONE
Identification	PASS
Insolubles	0.1 %
Melting Point	88 - 92 °C
pH (5%, Water) @25 °C	9.5 - 10.5
Protease	NONE
Purity	99.0 %
RNase	NONE
Solubility (20%, Water)	PASS

Cat. No.	Pk	Pack type
M136-10G	10 g	Glass bottle
M136-50G	50 g	Glass bottle
M136-100G	100 g	Glass bottle

Standard solution imidazole 1000 mg/ml in water

NEW Standard solution imidazole 1000 mg/ml in water

Cat. No.	Pk	Pack type
87345.180	100 ml	Plastic bottle
87345.290	1 l	Plastic bottle

1H-Imidazole

See Imidazole p.239

L-3-Imidazol-4-ylalanine monohydrochloride monohydrate

See L(+)-Histidine monohydrochloride monohydrate p.217

L-3-Imidazol-4-ylalanine

See L(+)-Histidine p.217

Indanetrione hydrate

See Ninhydrin p.322

BDH® '4.5' Indicator

Danger
H226 H319 H336
P210 P243 P280 P304+P340 P305+P351+P338 P312
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

BDH® '4.5' Indicator pH 3,5-6,0 pH-indicator, for titration of first hydrogen of phosphoric acid

pH 3.5 - 6.0

pH 3.5 orange-red
pH 4.4 orange-grey
pH 4.5 pure grey
pH 4.6 bluish-grey
pH 6.0 deep blue
A mixed indicator for the titration of the first hydrogen of phosphoric acid.

Cat. No.	Pk	Pack type
210414M	500 ml	Glass bottle
210416X	2,5 l	Glass bottle

Universal indicator ethanol solution

Danger
H225
P210 P243 P280
UN: 1170
ADR 3,II
Flash Pt: 20 °C
Storage Temperature: Ambient temperature

Universal indicator ethanol solution TECHNICAL®

Cat. No.	Pk	Pack type
34352.290	1 l	Glass bottle

Mixed indicator methyl orange - bromocresol green in aqueous solution

Mixed indicator methyl orange - bromocresol green in aqueous solution Reag. Ph. Eur. 1054801

Cat. No.	Pk	Pack type
87870.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Please visit vwr.com for latest pricing, certificates, SDS and updates to our range

Indicator paper in rolls, DOSATEST®

DOSATEST® pH indicator test papers give very good precision and are very easy to read because they have 2 colour zones. The hydrophobic barrier between the zones ensures a distinctive separation of colour bands and facilitates the estimation of intermediate values when used with the colour scale provided.

- Supplied as 5 m × 10 mm rolls (*except the 3 zone 35307.600 which is 6 m × 14 mm)
- Wide and narrow pH ranges available

Description	pH range	pH gradation	Pk	Cat. No.
pH indicator paper, DOSATEST®	1,0 - 12,0	1	5 Roll	35300.606
pH indicator paper, DOSATEST®	1,0 - 4,3	0,3	5 Roll	35301.600
pH indicator paper, DOSATEST®	3,5 - 6,8	0,3	5 Roll	35302.603
pH indicator paper, DOSATEST®	5,0 - 8,0	0,3	5 Roll	35303.606
pH indicator paper, DOSATEST®	1 - 11,0*	1	5 Roll	35307.600
pH indicator paper, DOSATEST®	7,0 - 10,0	0,3	5 Roll	70035.607
pH indicator paper, DOSATEST®	9,5 - 14,0	0,5	5 Roll	70036.601

pH indicator papers, Rota®

These rolls (5 m × 10 mm) have only 1 colour zone and are useful where high precision of measurement is not necessary.

Description	pH range	pH gradation	Pk	Cat. No.
Indicator Paper, Rota®	1-14	1	1 Roll	3610.
Universal Indicator, Rota®	1-10,0	1	5	1.09526.0005
Universal Indicator, Rota®	1-10,0	1	50	1.09526.0050

Indicator papers in strips, DOSATEST®

For the determination of the pH of coloured solutions. Indicator and colour comparison chart are combined on the strip. Reading the pH value is quick and reliable as a colour comparison with a separate reference chart is not needed and the actual pH values are printed on each strip. With this system even the pH of coloured solutions and suspensions can be reliably determined as the colour affects the indicator and reference colours equally. The end effect is that of compound colours of the same shade being compared. The individual colour zones are separated by a hydrophobic barrier.

Plastic box with 200 indicator strips 11×100 mm.

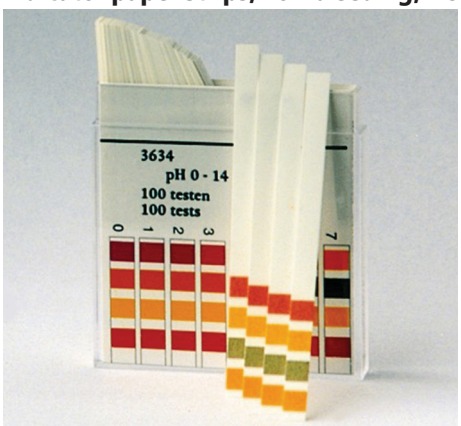
Description	pH range	pH gradation	Pk	Cat. No.
DOSATEST® pH indicator strips	1 - 12	1	3	35290.601
DOSATEST® pH indicator strips	1,8 - 3,8	0,3	3	35292.607
DOSATEST® pH indicator strips	3,8 - 5,5	0,2 - 0,3	3	35293.601
DOSATEST® pH indicator strips	5,2 - 6,8	0,2 - 0,3	3	35294.604
DOSATEST® pH indicator strips	6,0 - 8,1	0,3	3	35295.607
DOSATEST® pH indicator strips	8,0 - 9,7	0,2 - 0,3	3	35296.601
DOSATEST® pH indicator strips	9,5 - 12,0	0,5	3	35297.604
DOSATEST® pH indicator strips	12,0 - 14,0	0,5	3	35298.607

Indicator strips, non bleeding

Non bleeding special indicator dyes that are covalently bound to the reagent paper and then adhered to plastic strips.

Description	pH range	Pk	Cat. No.
Indicator strips, non bleeding	0 - 6,0	100	315052J
Indicator strips, non bleeding	0 - 14	100	315082P

Indicator paper strips, non bleeding, DOSATEST®



The test strips contain indicator dyes that are covalently bound to the reagent papers and then adhered to plastic strips. Contamination of the solution is therefore prevented even in strong alkaline solutions or from long immersion in weak buffered solution.

- Non bleeding - do not contaminate the solution to be measured or cross-contaminate neighbouring colour zones
- Length of the plastic strip protect fingers from contact with liquid
- Wide and narrow pH ranges available.

Plastic box with colour chart and 100 indicator strips 6×85 mm

Description	pH range	pH gradation	Pk	Cat. No.
pH indicator strips, DOSATEST	0 - 14	1	3	35309.606
pH indicator strips, DOSATEST	0,0 - 6,0	0,5	3	35310.601

Description	pH range	pH gradation	Pk	Cat. No.
pH indicator strips, DOSATEST	4,5 - 10	0,5	3	35311.604
pH indicator strips, DOSATEST	7 - 14	0,5	3	35312.607
pH indicator strips, DOSATEST	1,7 - 3,8	0,3	3	35315.607
pH indicator strips, DOSATEST	3,6 - 6,1	0,3 - 0,4	3	35316.601
pH indicator strips, DOSATEST	6,0 - 7,7	0,3 - 0,4	3	35317.604
pH indicator strips, DOSATEST	7,5 - 9,5	0,2 - 0,4	3	35318.607

Indicator test strips, water hardness, DOSATEST®

- Results within 1 minute ideal for applications in boiler testing, aquaria and laundries
- Test for both Ca and Mg ions in mildly alkaline conditions (pH 7 - 8,3)
- Easy to handle plastic strips (6×95 mm)

Description	Pk	Cat. No.
Hardness test	100 Tests	35320.616

Indicators : strips , rolls , dyes (dry & solution)

Description	Page	Pk	Cat. No.
pH-Indicator paper pH 1-14 ± 1 pH-unit, in strips (plastic) non-bleeding	241, 242	100	315082P
pH-Indicator paper pH 1-10 ± 1 pH-unit, in roll Rota® 5.00 m 10.00 mm	241, 242	5	1.09526.0005
pH-Indicator paper pH 1-10 ± 1 pH-unit, in roll Rota® 5.00 m 10.00 mm	241, 242	50	1.09526.0050
Alizarin complexone TECHNICAL	22, 242	1 g	20118.081
Aniline blue water soluble TECHNICAL	47, 242	100 g	21999.183
ortho-Boric acid 40 g/l in aqueous solution for Kjeldahl determinations	72, 242	2,5 l	192316H
ortho-Boric acid 10 g/l in aqueous solution, light green VOLUSOL®	72, 242	5 l	5732.5000
Bromocresol green, powder pH-indicator	75, 242	25 g	200125B
Bromocresol green 0.04% in ethanol TECHNICAL	75, 242	250 ml	34301.237
Bromocresol green 0.1% in 2-propanol, spray reagent for TLC	75, 242	250 ml	30957.602
Bromophenol blue 0.04% in ethanol TECHNICAL	76, 242	250 ml	34307.237
Bromothymol blue 0.04% in ethanol TECHNICAL	77, 242	250 ml	34303.234
Chromotropic acid disodium salt dihydrate analytical reagent	112, 242	25 g	20261.132
Clarifying reagent of biological media	114, 242	250 ml	27357.232
Congo Red 1% in aqueous solution	121, 242	1 l	31727.295
1,5-Diphenylcarbazide analytical reagent	154, 242	10 g	23550.120
Dithizone analytical reagent	156, 242	5 g	23570.106
Dragendorff's reagent for analysis of alkaloids	157, 242	250 ml	30989.236
Eriochrome Black T TECHNICAL	172, 242	100 g	26002.183
Fehling's reagent I (Copper (II) sulphate solution, concentrated solution) for qualitative determination of reducing sugars	183, 242	500 ml	31965.264
Fehling's reagent I (Copper (II) sulphate solution) for qualitative determination of reducing sugars	183, 242	1 l	31963.291
Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution, concentrated solution) for qualitative determination of reducing sugars	183, 242	500 ml	31966.267
Fehling's reagent II (L(+)-Potassium sodium tartrate in sodium hydroxide solution) for qualitative determination of reducing sugars	183, 242	1 l	31964.294
Fehling's reagent (kit, contains solution I and II) for qualitative determination of reducing sugars	183, 242	1 l	31701.296
Ferroin indicator (1,10-Phenanthroline-Iron (II) sulphate complex, 7 mg/ml $FeSO_4$) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	184, 242	100 ml	30890.188
Fluorescein disodium salt TECHNICAL	186, 242	100 g	260983T
Fluorescein disodium salt TECHNICAL	186, 242	5 kg	26098CF
Folin-Ciocalteu's reagent for analysis of phenols	186, 242	500 ml	31360.264
Folin-Denis' reagent for analysis of uric acid	187, 242	1 l	31351.296
Griess' reagent for analysis of nitrite	207, 242	1 l	31023.293
Hydroquinone GPR RECTAPUR®	232, 242	1 kg	24704.298
BDH® '4.5' Indicator pH 3,5-6,0 pH-indicator, for titration of first hydrogen of phosphoric acid	240, 242	500 ml	210414M
BDH® '4.5' Indicator pH 3,5-6,0 pH-indicator, for titration of first hydrogen of phosphoric acid	240, 242	2,5 l	210416X
Universal indicator ethanol solution TECHNICAL	240, 242	1 l	34352.290
Indigo carmine analytical reagent	242, 244	25 g	22537.138
Methyl orange 0.04% in aqueous solution TECHNICAL pH-indicator	242, 292	250 ml	31720.230
Methyl orange 0.04% in aqueous solution TECHNICAL pH-indicator	242, 292	1 l	31720.292
Methyl red 0.2 g/l in ethanol TECHNICAL	242, 293	250 ml	34302.231
Meyer'reagent for blood research	242, 294	500 ml	31072.268
Murexide analytical reagent	242, 317	10 g	25717.120
Nessler's reagent for determination of ammonia and ammonium salts	242, 319	500 ml	31074.265
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	5 g	25905.107
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	50 g	25905.153
Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent	43, 242, 322	100 g	25905.180
Ninhydrin 0.5% in 1-butanol, spray reagent for TLC	242, 323	240 ml	30960.226
Nuclear Fast Red TECHNICAL	242, 328	5 g	27416.101
Orcein TECHNICAL	242, 332	25 g	26091.134
Patton-Reeders reagent (Calconcarboxylic acid) analytical reagent	242, 340	25 g	20326.136
1,10-Phenanthroline monohydrate analytical reagent	242, 357	5 g	26227.101
1,10-Phenanthroline hydrochloride monohydrate analytical reagent	242, 357	5 g	26230.102
Phenol red 0.4 g/l in ethanol TECHNICAL	242, 360	250 ml	34304.237
Phenolphthalein GPR RECTAPUR®	242, 360	250 g	26237.231
Phenolphthalein 1% in ethanol 50% pH-indicator	242, 360	250 ml	210893Q
Phenolphthalein 1% in ethanol 50% pH-indicator	242, 360	1 l	210894R
Phenolphthalein 1% in 2-propanol TECHNICAL	242, 360	1 l	8626.1000
Phenolphthalein 0.2% in ethanol TECHNICAL	242, 360	1 l	31724.295
8-Quinolinol AnalaR NORMAPUR® analytical reagent	242, 402	250 g	26123.237
Saffron, powder TECHNICAL	242, 413	5 g	27481.105
Schiff's reagent (Feulgen stain) for analysis of aldehydes	242, 416	500 ml	30969.261
Soda lime with indicator AnalaR NORMAPUR® analytical reagent	242, 429	1 kg	22666.293

Description	Page	Pk	Cat. No.
Soda lime with indicator AnalaR NORMAPUR® analytical reagent	243, 429	5 kg	22666.362
Soda lime with indicator AnalaR NORMAPUR® analytical reagent	243, 429	180 kg	22666.555
Sodium tetraphenylborate analytical reagent	243, 460	25 g	28187.138
Starch soluble Iotect® iodine indicator AnalaR NORMAPUR® analytical reagent	243, 481	100 g	28610.187
Starch soluble Iotect® iodine indicator AnalaR NORMAPUR® analytical reagent	243, 481	250 g	28610.234
Starch soluble Iotect® iodine indicator AnalaR NORMAPUR® analytical reagent	243, 481	1 kg	28610.291
5-Sulphosalicylic acid dihydrate AnalaR NORMAPUR® analytical reagent	243, 486	100 g	20678.187
Thymol blue 0.04% in ethanol TECHNICAL	243, 505	250 ml	34300.234
o-Tolidine 0.1 % (1.6 M) hydrochloric solution for chlorine determination in water according to the NF T 90-010 standard	243, 509	1 l	28672.294
Xylenol orange tetrasodium salt TECHNICAL	243, 546	5 g	26086.103

Indigo carmine
Acid Blue 74 , Food blue No. 2

Warning
H302
P301+P312

CAS 860-22-0
EINECS: 212-728-8

$C_{16}H_8N_2Na_2O_8S_2$
M.W. 466.36 g/mol
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

Indigo carmine analytical reagent

Identification ..... Passes test

Cat. No.	Pk	Pack type
22537.138	25 g	Plastic bottle for solids

Indigo carmine 0,4% in dil. sulphuric acid

CAS 860-22-0
EINECS: 212-728-8

$C_{16}H_8N_2Na_2O_8S_2$
M.W. 466.36 g/mol

NEW Indigo carmine 0,4% in dil. sulphuric acid Reag. Ph. Eur. 1045602

Cat. No.	Pk	Pack type
87853.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Indigo carmine 0,4% in mixture of sulphuric acid 20% and hydrochloric acid 1%

CAS 860-22-0
EINECS: 212-728-8

$C_{16}H_8N_2Na_2O_8S_2$
M.W. 466.36 g/mol

NEW Indigo carmine 0,4% in mixture of sulphuric acid 20% and hydrochloric acid 1% Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87852.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Indium standard solution, 10,000 mg/l In in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-74-6
EINECS: 231-180-0
UN: 3264
ADR 8,III

In
M.W. 114.82 g/mol
Boiling Pt: 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Indium standard solution, 10,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP

In in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455492J	100 ml	Plastic bottle

Supplied with certificate of analysis.

Indium standard solution, 1,000 mg/l In in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-74-6
EINECS: 231-180-0
UN: 3264
ADR 8,III

In
M.W. 114.82 g/mol
Density: 1.014 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Indium standard solution, 1,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP-MS

In in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456752X	100 ml	Plastic bottle

Supplied with certificate of analysis.

Indium standard solution, 1,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP

In in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455482H	100 ml	Plastic bottle
455484J	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Indium standard solution, 1,000 mg/l In in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86684.180	100 ml	Plastic bottle
86684.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Indium (III) oxide
Indium trioxide , Diindium trioxide

CAS 1312-43-2
EINECS: 215-193-9

In_2O_3
M.W. 277.64 g/mol
Density: 7.18 g/cm³ (20 °C)
Melting Pt: 715.05 °C

NEW Indium (III) oxide NORMATOM®

Assay ..... Min. 99.5 %
Water ..... Max. 0.1 %
Bi (Bismuth) ..... Max. 5 ppm
Ca (Calcium) ..... Max. 10 ppm
Cr (Chromium) ..... Max. 5 ppm
Cu (Copper) ..... Max. 5 ppm
Fe (Iron) ..... Max. 10 ppm
Ni (Nickel) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm
Si (Silicon) ..... Max. 15 ppm
Sn (Tin) ..... Max. 5 ppm
Tl (Thallium) ..... Max. 5 ppm
Zn (Zinc) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
84846.130	25 g	Plastic bottle for solids
84846.180	100 g	Plastic bottle for solids

(3-Indoxyl) β-D-glucopyranoside

CAS 487-60-5

$C_{14}H_{17}NO_6$
Storage Temperature: -20°C

VWR CHEMICALS (3-Indoxyl) β-D-glucopyranoside, high purity

Purity (HPLC) ..... > 97 %

Cat. No.	Pk	Pack type
N721-25MG	25 mg	Glass bottle
N721-100MG	100 mg	Glass bottle

Industrial methylated spirits

See Ethanol 90% denatured with methanol (industrial methylated spirit) . p.177

NEW Black ink Q PATH®

Ink for pathology for marking and identifying histological samples without altering the tissues.

Cat. No.	Pk	Pack type
01816200.	40 ml	Plastic bottle

NEW Green ink Q PATH® for microscopy

Ink for pathology for marking and identifying histological samples without altering the tissues.

Cat. No.	Pk	Pack type
01816201.	30 ml	Plastic bottle

NEW Yellow ink Q PATH® for microscopy

Ink for pathology for marking and identifying histological samples without altering the tissues.

Cat. No.	Pk	Pack type
01816202.	30 ml	Plastic bottle

NEW Blue ink Q PATH® for microscopy

Ink for pathology for marking and identifying histological samples without altering the tissues.

Cat. No.	Pk	Pack type
01816203.	30 ml	Plastic bottle

NEW Red ink Q PATH® for microscopy

Ink for pathology for marking and identifying histological samples without altering the tissues.

Cat. No.	Pk	Pack type
01816204.	30 ml	Plastic bottle

Inosine

CAS 58-63-9
EINECS: 200-390-4

$C_{10}H_{12}N_4O_5$
Storage Temperature: Ambient temperature

VWR CHEMICALS Inosine, high purity

Ash ..... 0.2 %
Heavy Metals (as Pb) ..... < 10 ppm
Loss on Drying ..... 1.0 %
Purity ..... 98.0 %
Thin Layer Chromatography (TLC) ..... ONE SPOT

Cat. No.	Pk	Pack type
0451-25G	25 g	Plastic bottle for solids

myo-Inositol

CAS 87-89-8
EINECS: 201-781-2

$C_6H_{12}O_6$
M.W. 180.16 g/mol
Density: 1.752 g/cm³ (20 °C)
Boiling Pt: 291 °C (1013 hPa)
Melting Pt: 210 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS myo-Inositol, high purity

Melting Range ..... 224 - 227 °C
Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0444-100G	100 g	Plastic bottle for solids

Iodine

Warning
H312+H332 H400
P261 P273 P302+P352 P304+P340 P312

CAS 7553-56-2
Index 053-001-00-3
EINECS: 231-442-4
UN: 3495
ADR 8,III

I_2
M.W. 253.81 g/mol
Density: 4.9 g/cm³ (20 °C)
Boiling Pt: 184.3 °C (1013 hPa)
Melting Pt: 114 °C
Storage Temperature: Ambient temperature

Iodine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent, resublimed

Assay ..... 99.8 to 100.5 %
Identification A ..... Passes test Ph.Eur.
Identification B ..... Passes test Ph.Eur.
Insoluble substances ..... Passes test
Solution S ..... Passes test
Non-volatile residue ..... Max. 100 ppm
Cl + Br (as Cl) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Conforms to BDH 10135 ..... Passes test
Conforms to ACS ..... Passes test
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
24757.187	100 g	Glass bottle
24757.234	250 g	Glass bottle
24757.291	1 kg	Glass bottle for solids

Iodine Ph. Eur.

Assay ..... 99.5 to 100.5 %
Appearance ..... Grey-violet crystals
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Bromides and chlorides ..... Max. 250 ppm
Non-volatile residue ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
24762.265	500 g	Glass bottle

Iodine GPR RECTAPUR®, resublimed

Assay ..... 99.8 to 100.5 %
Non-volatile residue ..... Max. 0.05 %
Cl + Br (as Cl) ..... Max. 0.025 %
Conforms to BDH 28564 ..... Passes test

Cat. No.	Pk	Pack type
24755.181	100 g	Glass bottle
24755.294	1 kg	Glass bottle for solids

Iodine concentrated aqueous solution

CAS 7553-56-2
EINECS: 231-442-4

I_2
Storage Temperature: Ambient temperature

NEW Iodine 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C; real value 0.2 % accuracy) ..... 0.04998 to 0.05002 mol/l

Cat. No.	Pk	Pack type
84591.600	30 ml	Glass ampoule

Iodine in aqueous solution

CAS 7553-56-2
EINECS: 231-442-4
UN: 3264
ADR 8,II

I_2
Storage Temperature: Ambient temperature

Iodine 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
30914.238	250 ml	Glass bottle
30914.295	1 l	Glass bottle

Iodine 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l
Conforms to BDH 19078 ..... Passes test

Cat. No.	Pk	Pack type
30917.295	1 l	Glass bottle
30917.320	2,5 l	Glass bottle

Iodine solution R4

NEW Iodine solution R4 Reag. Ph. Eur. 1045806

Cat. No.	Pk	Pack type
87856.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iodine in chloroform

CAS 7553-56-2
EINECS: 231-442-4

I_2
Storage Temperature: Ambient temperature

NEW Iodine 5 g/l in chloroform Reag. Ph. Eur. 1045805

Cat. No.	Pk	Pack type
87855.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iodine monobromide in acetic acid

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 7789-33-5
EINECS: 232-159-9
UN: 2789
ADR 8,II

IBr
Storage Temperature: Ambient temperature

Iodine monobromide 20 g/l in acetic acid 99% Reag. Ph. Eur. 1045901

Cat. No.	Pk	Pack type
87714.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iodine trichloride (Wijs'reagent)

Danger
H314 H335 H290
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 865-44-1
EINECS: 212-739-8
UN: 2920
ADR 8,II
Flash Pt: 40 °C

ICl_3
M.W. 233.26 g/mol
Density: 1.23 g/cm³ (20 °C)
Melting Pt: 63 °C
Storage Temperature: -20°C

Iodine trichloride (Wijs'reagent) for determination of iodine value

Identification ..... Passes test

Cat. No.	Pk	Pack type
2812.0500	500 ml	Glass bottle
2812.1000	1 l	Glass bottle

Iodoacetamide

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 144-48-9
EINECS: 205-630-1
UN: 2811
ADR 6.1,III

ICH_2CONH_2
M.W. 184.96 g/mol
Boiling Pt: 266 °C (1013 hPa)
Melting Pt: 91 to 94 °C
Storage Temperature: 2 - 8°C

Iodoacetamide, proteomics grade

Loss on Drying....1.0 %
Melting Point....90 - 95 °C
Protease....NONE
Purity....98.0 %

Cat. No.	Pk	Pack type
M216-30G	30 g	Glass bottle

Iodomethane
Methyl iodide

Danger
H351 H301+H331 H312 H335 H315
P201 P281 P302+P352 P304+P340 P309+P310

CAS 74-88-4
Index 602-005-00-9
EINECS: 200-819-5
UN: 2644
ADR 6.1,I

CH_3I
M.W. 141.94 g/mol
Density: 2.279 g/cm³ (20 °C)
Boiling Pt: 42.4 °C (1013 hPa)
Melting Pt: -66 °C
Storage Temperature: 2 - 8°C

Iodomethane GPR RECTAPUR®

Assay....Min. 99 %
IR Spectrum....Passes test
Density (20/4)....2.260 to 2.290

Cat. No.	Pk	Pack type
25596.154	50 ml	Glass bottle

2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyltetrazolium chloride
2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyl-2H-tetrazolium chloride , Iodonitrotetrazolium violet , INT , p-Iodonitrotetrazolium violet , 3-(4-Iodophenyl)-2-(4-nitrophenyl)-5-phenyl-2H-tetrazolium chloride , 3-(4-Iodophenyl)-2-(4-nitrophenyl)-5-phenyltetrazolium chloride

Warning
H371
P260 P309+P311

CAS 146-68-9
EINECS: 205-676-2

$C_{19}H_{13}ClIN_5O_2$
M.W. 505.7 g/mol
Melting Pt: 227 to 229 °C
Storage Temperature: 2 - 8°C

2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyltetrazolium chloride, high purity

Em (250 nm, Water)....34000
Purity....99.0 %
Solubility (1%, DMSO)....PASS

Cat. No.	Pk	Pack type
0294-500MG	500 mg	Glass bottle
0294-1G	1 g	Glass bottle

Iodoplatinate reagent

NEW

Iodoplatinate reagent Reag. Ph. Eur. 1046300

Cat. No.	Pk	Pack type
87857.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iotect® iodine indicator

See Starch, soluble.... p.481

IPA

See 2-Propanol.... p.392

IPTG (Isopropyl-β-D-thiogalactopyranoside)

CAS 367-93-1
EINECS: 206-703-0

$C_9H_{18}O_5S$
M.W. 238.31 g/mol
Boiling Pt: 402 °C (1013 hPa)
Melting Pt: 109.5 to 110.5 °C
Storage Temperature: -20°C

IPTG (Isopropyl-β-D-thiogalactopyranoside) (not of animal origin), high purity

Free of all animal products. Dioxane free.

Abs.@300 nm (5 %, Water)....0.15
Abs.@400 nm (5 %, Water)....0.06
Dioxane....NONE
Identification (IR)....PASS
Melting Point....110 - 114 °C
Moisture (KF)....1.0 %
pH (5 %, Water)@25 °C....5.0 - 7.0
Purity....98 %
Specific Rotation....-34.5 to -28.5 °

Cat. No.	Pk	Pack type
N679-1G	1 g	Glass bottle
N679-10G	10 g	Glass bottle

IPTG (Isopropyl-β-D-thiogalactopyranoside), ultrapure

Commonly used inducer for β-Galactosidase activity in many bacterial gene sequences controlled by the *lac* operon. IPTG and X-Gal are often used together to identify bacterial colonies containing recombinant plasmid DNA. Dioxane-free.

Abs.@300 nm (5 %, Water)....0.13
Abs.@400 nm (5 %, Water)....0.06
Dioxane....NONE
Identification (IR)....PASS
Melting Point....110 - 114 °C
Moisture (KF)....1.0 %
pH (5 %, Water) @25 °C....5 - 7
Purity....99.0 %
Solubility (5 %, Water)....PASS
Specific Rotation (1 %, Water)....-34.0 to -29.0 °

Cat. No.	Pk	Pack type
0487-1G	1 g	Glass bottle
0487-10G	10 g	Glass bottle
0487-100G	100 g	Glass bottle

IPTG (Isopropyl-β-D-thiogalactopyranoside), ultrapure

Abs.@300 nm (5 %, Water)..... 0.13
Abs.@400 nm (5 %, Water)..... 0.06
Dioxane..... NONE
Identification (IR)..... PASS
Melting Point..... 110 - 114 °C
Moisture (KF)..... 1.0 %
pH (5 %, Water) @25 °C..... 5 - 7
Purity..... 99.0 %
Solubility (5 %, Water)..... PASS
Specific Rotation (1 %, Water)..... -34.5 to -28.5 °

Cat. No.	Pk	Pack type
J436-100G	100 g	Glass bottle

IPTG (Isopropyl-β-D-thiogalactopyranoside)

A chemical analogue of galactose which cannot be hydrolysed by the enzyme ß-galactosidase. IPTG is an inducer for activity of the *E.Coli* lac operon which acts by binding and inhibiting the lac repressor. Genes controlled by the lac promoter/operator sequence are expressed to high levels in the presence of IPTG. Essentially dioxane free.

Assay..... Min. 98 %
Appearance..... White crystalline powder
IR Spectrum..... Passes test
Specific optical rotation (1 %; water)..... -33 to -31 °
Dioxan..... Max. 1 ppm
Water..... Max. 1 %

Cat. No.	Pk	Pack type
437145X	10 g	Glass bottle for solids
437144N	25 g	Glass bottle for solids
43714BD	1 kg	Glass bottle

IPTG (20mg/ml)

IPTG (20mg/ml), ultrapure

Commonly used inducer for β-Galactosidase activity in many bacterial gene sequences controlled by the *lac* operon. IPTG and X-Gal are often used together to identify bacterial colonies containing recombinant plasmid DNA.

Cat. No.	Pk	Pack type
E708-1ML	1 ml	Plastic tube

Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7439-88-5
EINECS: 231-095-9
UN: 1789
ADR 8,II

Ir
M.W. 192.22 g/mol
Storage Temperature: Ambient temperature

Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid (from $IrCl_3$) ARISTAR® standard for ICP

($IrCl_3.3H_2O$ in HCl)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455502R	100 ml	Plastic bottle
455504T	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86685.180	100 ml	Plastic bottle
86685.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Iron (reagents for the analysis of)

1,10-Phenanthroline monohydrate analytical reagent..... p.357
5-Sulphosalicylic acid dihydrate AnalaR NORMAPUR® analytical reagent . p.486

Iron

Warning
H228
P280

CAS 7439-89-6
EINECS: 231-096-4
UN: 3089
ADR 4.1,III

Fe
M.W. 55.85 g/mol
Density: 7.86 g/cm³ (20 °C)
Boiling Pt: 3000 °C (1013 hPa)
Melting Pt: 1536 °C
Storage Temperature: Ambient temperature

Iron, powder AnalaR NORMAPUR® analytical reagent, reduced by hydrogen

Assay..... Min. 99.5 %
Cl (Chloride)..... Max. 20 ppm
As (Arsenic)..... Max. 2 ppm
Mn (Manganese)..... Max. 20 ppm
Zn (Zinc)..... Max. 20 ppm
Insolubility in sulphuric acid..... Max. 0.1 %
S (Sulphur)..... Max. 20 ppm
Cu (Copper)..... Max. 20 ppm
Pb (Lead)..... Max. 20 ppm

Cat. No.	Pk	Pack type
24088.232	250 g	Plastic bottle for solids

Iron 98%, powder TECHNICAL

Assay..... Min. 98 %

Cat. No.	Pk	Pack type
24086.292	1 kg	Plastic bottle for solids

Iron standard solution, 10,000 mg/l Fe in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-89-6
EINECS: 231-096-4
UN: 3264
ADR 8,III

Fe
M.W. 55.85 g/mol
Storage Temperature: Ambient temperature

Iron standard solution, 10,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP-MS

Fe in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457072B	100 ml	Plastic bottle

Supplied with certificate of analysis.

Iron standard solution, 10,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP

Fe in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455532A	100 ml	Plastic bottle
455534C	500 ml	Plastic bottle

Supplied with certificate of analysis.

Iron standard solution, 1,000 mg/l Fe in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-89-6
EINECS: 231-096-4
UN: 3264
ADR 8,III

Fe
M.W. 55.85 g/mol
Density: 1.02 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Iron standard solution, 1,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP-MS

Fe in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456762Q	100 ml	Plastic bottle

Supplied with certificate of analysis.

Iron standard solution, 1,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP

Fe in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455522V	100 ml	Plastic bottle
455524A	500 ml	Plastic bottle

Supplied with certificate of analysis.

Iron standard solution, 1,000 mg/l Fe in 2% hydrochloric acid

CAS 7439-89-6
EINECS: 231-096-4

Fe
M.W. 55.85 g/mol
Storage Temperature: Ambient temperature

Iron standard solution, 1,000 mg/l Fe in 2% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86677.180	100 ml	Plastic bottle
86677.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Standard solution (200 ppm Fe) for the preparation of Iron standard solution (20 ppm Fe) Reag.Ph.Eur.; 5001600

NEW

Standard solution (200 ppm Fe) for the preparation of iron standard solution (20 ppm Fe) Reag. Ph. Eur.; 5001600

Cat. No.	Pk	Pack type
88086.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iron dichloride tetrahydrate

See Iron (II) chloride tetrahydrate p.249

Iron (II) chloride tetrahydrate

Ferrous chloride tetrahydrate , Iron dichloride tetrahydrate

Danger
H302 H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 13478-10-9
EINECS: 231-843-4
UN: 3260
ADR 8,III

$FeCl_2 \cdot 4H_2O$
M.W. 198.81 g/mol
Density: 1.926 g/cm³ (20 °C)
Melting Pt: 677 °C
Storage Temperature: Ambient temperature

Iron (II) chloride tetrahydrate AnalaR NORMAPUR® analytical reagent

Assay	98.0 to 102.0 %	Not precipitated by NH_4OH (as SO_4)	Max. 0.1 %
Total N (Nitrogen)	Max. 10 ppm	SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 5 ppm	Fe (III) (Iron)	Max. 0.2 %
Pb (Lead)	Max. 10 ppm	Zn (Zinc)	Max. 100 ppm

Cat. No.	Pk	Pack type
24127.237	250 g	Plastic bottle for solids

Iron (II) chloride tetrahydrate, purified

Assay ..... Min. 99.0 %

Cat. No.	Pk	Pack type
24128.297	1 kg	Plastic bottle for solids

Iron (III) chloride

Ferric chloride , Iron trichloride

Danger
H302 H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 7705-08-0
EINECS: 231-729-4
UN: 1773
ADR 8,III

$FeCl_3$
M.W. 162.21 g/mol
Density: 2.8 g/cm³ (20 °C)
Boiling Pt: 315 °C (1013 hPa)
Melting Pt: 260 °C
Storage Temperature: Ambient temperature

Iron (III) chloride, anhydrous TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24216.268	500 g	Plastic bottle for solids
24216.361	5 kg	Bucket (Plastic)

Iron (III) chloride hexahydrate

Ferric chloride hexahydrate , Iron trichloride hexahydrate

Danger
H302 H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 10025-77-1
EINECS: 231-729-4
UN: 3260
ADR 8,III

$FeCl_3 \cdot 6H_2O$
M.W. 270.3 g/mol
Density: 1.82 g/cm³ (20 °C)
Boiling Pt: 280 to 285 °C (1013 hPa)
Melting Pt: 37 °C
Storage Temperature: Ambient temperature

Iron (III) chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99.0 %
Heavy metals (as Pb) ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 100 ppm
Cu (Copper) ..... Max. 30 ppm
Zn (Zinc) ..... Max. 30 ppm
Free chlorine ..... Passes test
Total N (Nitrogen) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (II) (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
24208.237	250 g	Plastic bottle for solids
24208.260	500 g	Plastic bottle for solids

Iron (III) chloride (10 - 60%) in aqueous solution

Danger
H302 H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 7705-08-0
EINECS: 231-729-4
UN: 2582
ADR 8,III

$FeCl_3$

Iron (III) chloride 41% in aqueous solution TECHNICAL

Assay ..... 38 to 42 %

Cat. No.	Pk	Pack type
24212.298	1 l	Glass bottle
24212.367	5 l	Plastic bottle
24212.447	20 l	Plastic drum

Iron (III) chloride 27.5% in aqueous solution AnalaR NORMAPUR® analytical reagent

Assay ..... 27.5 to 29.0 %
Density (20/4) ..... 1.260 to 1.280
Heavy metals (as Pb) ..... Max. 30 ppm
NH_4 (Ammonium) ..... Max. 20 ppm
PO_4 (Phosphate) ..... Max. 20 ppm
As (Arsenic) ..... Max. 5 ppm
Zn (Zinc) ..... Max. 20 ppm
Acidity ..... Max. 0.08 meq/g
Free chlorine ..... Max. 10 ppm
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.05 %
NO_3 (Nitrate) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (II) (Iron) ..... Max. 30 ppm

Cat. No.	Pk	Pack type
24207.291	1 l	Glass bottle

Iron (III) chloride 27% in aqueous solution GPR RECTAPUR®

Assay ..... 27 to 29 %
Density (20/4) ..... 1.260 to 1.280
Heavy metals (as Pb) ..... Max. 100 ppm
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.5 %
SO_4 (Sulphate) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
24206.297	1 l	Glass bottle

Iron (III) chloride 27% in aqueous solution TECHNICAL

Assay ..... 27 to 29 %

Cat. No.	Pk	Pack type
24205.294	1 l	Glass bottle
24205.363	5 l	Plastic bottle

Iron (III) chloride 105 g/l in aqueous solution Reag. Ph. Eur. 1037801

Cat. No.	Pk	Pack type
87833.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iron (III) chloride (< 10%) in aqueous solution

CAS 7705-08-0
EINECS: 231-729-4
UN: 2582
ADR 8,III

$FeCl_3$

NEW Iron (III) chloride 13 g/l in aqueous solution Reag. Ph. Eur. 1037802

Cat. No.	Pk	Pack type
87834.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iron (III) citrate trihydrate

Iron (III) citrate tribasic trihydrate

CAS 17217-76-4
EINECS: 249-117-0

$C_6H_5FeO_7.3H_2O$
M.W. 298.99 g/mol
Storage Temperature: Ambient temperature

Iron (III) citrate trihydrate

Assay (calculated as Fe)..... 18 to 21 %
Cl (Chloride)..... Max. 0.05 %
NH_4 (Ammonium)..... Max. 0.5 %
As (Arsenic)..... Max. 5 ppm

Cat. No.	Pk	Pack type
283814C	500 g	Plastic bottle for solids

Iron (III) citrate tribasic trihydrate

See Iron (III) citrate trihydrate p.250

Iron (II) ethanedioate dihydrate

See Iron (II) oxalate dihydrate..... p.251

Iron (III) monosodium ethylenediaminetetraacetate

See EDTA ferric monosodium salt..... p.161

Iron (III) nitrate nonahydrate

Ferric nitrate nonahydrate , Iron trinitrate nonahydrate

Warning
H272 H319 H335 H315
P210 P280 P302+P352 P305+P351+P338

CAS 7782-61-8
EINECS: 233-899-5
UN: 1466
ADR 5.1,III

$Fe(NO_3)_3 \cdot 9H_2O$
M.W. 404 g/mol
Density: 1.68 g/cm³ (20 °C)
Boiling Pt: 125 °C (1013 hPa)
Melting Pt: 47 °C
Storage Temperature: Ambient temperature

Iron (III) nitrate nonahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay..... 99.0 to 101.0 %
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
SO_4 (Sulphate)..... Max. 50 ppm
Cu (Copper)..... Max. 50 ppm
Mg (Magnesium) ..... Max. 10 ppm
Na (Sodium)..... Max. 50 ppm
Zn (Zinc)..... Max. 10 ppm
Conforms to Reag. Ph.Eur. ..... Passes test
Free acid ..... Max. 0.05 meq/g
Not precipitated by NH_4OH (as SO_4)..... Max. 0.1 %
PO_4 (Phosphate)..... Max. 50 ppm
Ca (Calcium)..... Max. 50 ppm
K (Potassium)..... Max. 50 ppm
Mn (Manganese) ..... Max. 0.02 %
Pb (Lead)..... Max. 10 ppm
Conforms to ACS ..... Passes test

Cat. No.	Pk	Pack type
24175.233	250 g	Plastic bottle for solids
24175.260	500 g	Plastic bottle for solids
24175.290	1 kg	Plastic bottle for solids

Iron (III) nitrate nonahydrate TECHNICAL

Assay..... Min. 98 %

Cat. No.	Pk	Pack type
24174.296	1 kg	Plastic bottle for solids
24174.365	5 kg	Bucket (Plastic)

Iron (II) oxalate dihydrate

Iron (II) ethanedioate dihydrate , Oxalic acid iron (II) salt dihydrate

Warning
H302+H312
P261 P302+P352 P304+P340 P312

CAS 6047-25-2
Index 607-007-00-3
EINECS: 208-217-4
UN: 3288
ADR 6.1,III

$Fe(C_2O_4) \cdot 2H_2O$
M.W. 179.9 g/mol
Density: 2.28 g/cm³ (25 °C)
Melting Pt: 190 °C
Storage Temperature: Ambient temperature

Iron (II) oxalate dihydrate, purified

Assay..... Min. 99 %

Cat. No.	Pk	Pack type
24179.293	1 kg	Plastic bottle for solids

Iron (II,III) oxide

Triiron tetraoxide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1317-61-9
EINECS: 215-277-5

Fe_3O_4
M.W. 231.54 g/mol
Density: 5.18 g/cm³ (20 °C)
Melting Pt: 1560 °C

Iron (II,III) oxide, black TECHNICAL

Identification..... Passes test

Cat. No.	Pk	Pack type
24187.460	25 kg	Metal drum

Iron (III) oxide

Ferric oxide , Diiron trioxide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1309-37-1
EINECS: 215-168-2

Fe_2O_3
M.W. 159.69 g/mol
Density: 5.24 g/cm³ (20 °C)
Melting Pt: 1538 °C

Iron (III) oxide, anhydrous GPR RECTAPUR®

Assay..... Min. 97 %
Cl (Chloride) ..... Max. 0.1 %
Mg (Magnesium) ..... Max. 0.03 %
Mn (Manganese) ..... Max. 0.3 %
Pb (Lead)..... Max. 50 ppm

Cat. No.	Pk	Pack type
24193.292	1 kg	Plastic bottle for solids

Iron salicylate solution

NEW

Iron salicylate solution Reag. Ph. Eur. 1046700

Cat. No.	Pk	Pack type
87858.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iron (III) sodium ethylenediaminetetraacetate

See EDTA ferric monosodium salt p.161

Iron (II) sulphate hydrate

Ferrous sulphate hydrate

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 13463-43-9
Index 026-003-01-4
EINECS: 231-753-5

$FeSO_4 \cdot H_2O$
M.W. 169.92 g/mol
Density: 2.97 g/cm³ (20 °C)
Melting Pt: ~ 300 °C
Storage Temperature: Ambient temperature

Iron (II) sulphate hydrate GPR RECTAPUR®

Assay (on anhydrous substance) ..... Min. 84 %
Heavy metals (as Pb) ..... Max. 50 ppm
Insolubility in water ..... Max. 0.05 %
As (Arsenic) ..... Max. 2 ppm
Fe (III) (Iron) ..... Max. 0.4 %
Pb (Lead) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
24242.292	1 kg	Plastic bottle for solids

Iron (II) sulphate heptahydrate

Ferrous sulphate heptahydrate

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 7782-63-0
Index 026-003-01-4
EINECS: 231-753-5

$FeSO_4 \cdot 7H_2O$
M.W. 278.02 g/mol
Density: 1.9 g/cm³ (20 °C)
Melting Pt: 64 °C
Storage Temperature: Ambient temperature

Iron (II) sulphate heptahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99.5 %
Total N (Nitrogen) ..... Max. 10 ppm
PO_4 (Phosphate) ..... Max. 10 ppm
Cu (Copper) ..... Max. 10 ppm
Mn (Manganese) ..... Max. 0.05 %
Zn (Zinc) ..... Max. 50 ppm
pH (20°C; 5 %) ..... 3.0 to 4.0
Cl (Chloride) ..... Max. 10 ppm
As (Arsenic) ..... Max. 2 ppm
Fe (III) (Iron) ..... Max. 0.02 %
Pb (Lead) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
24244.232	250 g	Plastic bottle for solids
24244.298	1 kg	Plastic bottle for solids

Iron (II) sulphate heptahydrate Ph. Eur.

Assay ..... 98.0 to 105.0 %
Appearance ..... Blue-green crystals
Identification A ..... Passes test
Identification B ..... Passes test
Identification C ..... Passes test
Solution S ..... Passes test
pH (5 %) ..... 3.0 to 4.0
Cl (Chloride) ..... Max. 200 ppm
Cr (Chromium) ..... Max. 50 ppm
Cu (Copper) ..... Max. 50 ppm
Ferric ions ..... Max. 0.3 %
Mn (Manganese) ..... Max. 0.1 %
Ni (Nickel) ..... Max. 50 ppm
Zn (Zinc) ..... Max. 50 ppm
Residual solvents ..... Unlikely by manuf.process

Cat. No.	Pk	Pack type
24246.295	1 kg	Plastic bottle for solids

Iron (II) sulphate heptahydrate GPR RECTAPUR®

Assay ..... Min. 98 %
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.5 %
Cl (Chloride) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
24240.295	1 kg	Plastic bottle for solids
24240.364	5 kg	Plastic bottle for solids

Iron (II) sulphate heptahydrate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
24237.294	1 kg	Plastic bottle for solids
24237.363	5 kg	Bucket (Plastic)

Iron (III) sulphate hydrate

Diiron trissulphate hydrate , Ferric sulphate hydrate

Warning
H302 H319 H335
P280 P304+P340 P305+P351+P338 P309+P311

CAS 15244-10-7
EINECS: 233-072-9

$Fe_2(SO_4)_3 \cdot H_2O$
M.W. 417.9 g/mol
Density: 3.1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Iron (III) sulphate hydrate AnalaR NORMAPUR® analytical reagent

Assay (calculated as Fe(III)) ..... 21.0 to 23.0 %
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.05 %
NO_3 (Nitrate) ..... Max. 0.02 %
As (Arsenic) ..... Max. 5 ppm
Fe (II) (Iron) ..... Max. 0.02 %
Insolubility in diluted HCl ..... Max. 100 ppm
Cl (Chloride) ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 30 ppm
Cu (Copper) ..... Max. 20 ppm
Zn (Zinc) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
24252.296	1 kg	Plastic bottle for solids

Iron (III) sulphate hydrate GPR RECTAPUR®

Assay (calculated as Fe(III)) ..... Min. 21 %
Not precipitated by NH_4OH (as SO_4) ..... Max. 0.1 %
Cl (Chloride) ..... Max. 100 ppm
Fe (II) (Iron) ..... Max. 0.05 %
Zn (Zinc) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
24248.292	1 kg	Plastic bottle for solids

Iron trichloride

See Iron (III) chloride p.250

Iron trichloride hexahydrate

See Iron (III) chloride hexahydrate p.250

Iron trinitrate nonahydrate

See Iron (III) nitrate nonahydrate p.251

Isoamyl alcohol

3-Methyl-1-butanol , Isopentyl alcohol , iso-Pentanol

Danger
H226 H332 H335
EUH066
P210 P243 P280 P304+P340 P312

CAS 123-51-3
Index 603-006-00-7
EINECS: 204-633-5
UN: 1105
ADR 3,III
Flash Pt: 42 °C

$(CH_3)_2CHCH_2CH_2OH$
M.W. 88.15 g/mol
Density: 0.812 g/cm³ (20 °C)
Boiling Pt: 130 °C (1013 hPa)
Melting Pt: -117 °C
Storage Temperature: Ambient temperature

Isoamyl alcohol AnalaR NORMAPUR® analytical reagent

Assay (calculated as mixture of isomers)	Min. 99.0 %	Acidity	Max. 0.008 meq/g
Alkalinity	Max. 0.0008 meq/g	Colouration	Max. 10 APHA
Density (20/4)	0.808 to 0.812	Distillation range	131.0 to 132.5 °C
Acidity and esters (as $C_7H_{14}O_2$)	Max. 0.12 %	Evaporation residue	Max. 10 ppm
Furfuraldehyde	Max. 1 ppm	Pentan-1-ol	Max. 0.5 %
Peroxides (as H_2O_2)	Max. 10 ppm	Water	Max. 0.2 %
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20798.295	1 l	Glass bottle

Isoamyl alcohol for milk analysis according to the NF V 04-210 standard

Assay (calculated as mixture of isomers)	Min. 98.0 %
Fats	Passes test
Furfuraldehyde	Passes test
Organic impurities	Passes test
Density (20/4)	0.808 to 0.818
Distillation range	128 to 132 °C
Evaporation residue	Max. 50 ppm
2-Methyl-1-butanol	8 to 10 %
3-Methyl-1-butanol	90 to 92 %
Water	Max. 0.5 %

Cat. No.	Pk	Pack type
20799.298	1 l	Glass bottle

Isoamyl alcohol, dehydrated (max. 0.05% H_2O) GPR RECTAPUR® for synthesis

Assay (calculated as mixture of isomers)	Min. 98 %
Density (20/4)	0.808 to 0.812
Water	Max. 0.05 %

Cat. No.	Pk	Pack type
20796.298	1 l	Glass bottle

Isoamyl alcohol TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
20797.292	1 l	Glass bottle

Isobutanol

2-Methyl-1-propanol , iso-Butyl alcohol , iso-Butanol

Danger
H226 H335 H315 H318 H336
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 78-83-1
Index 603-108-00-1
EINECS: 201-148-0
UN: 1212
ADR 3,III
Flash Pt: 28 °C

$(CH_3)_2CHCH_2OH$
M.W. 74.12 g/mol
Density: 0.802 g/cm³ (20 °C)
Boiling Pt: 107.9 °C (1013 hPa)
Melting Pt: -108 °C
Storage Temperature: Ambient temperature

Isobutanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Acidity	Max. 0.0006 meq/g
Boiling point	107 to 109 °C	Colouration	Max. 10 APHA
Density (20/4)	0.799 to 0.803	Density (20/20)	0.800 to 0.804
n 15/D	1.397 to 1.399	n 20/D	1.395 to 1.396
Evaporation residue	Max. 50 ppm	Water	Max. 0.5 %
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
20833.297	1 l	Glass bottle

Isobutanol GPR RECTAPUR®

Assay	Min. 98 %
Density (20/4)	0.799 to 0.803
Distillation range	107 to 110 °C
Evaporation residue	Max. 0.02 %
n 20/D	1.395 to 1.396

Cat. No.	Pk	Pack type
20836.297	1 l	Glass bottle

Isobutanol TECHNICAL

Assay	Min. 97 %
n 20/D	1.395 to 1.396

Cat. No.	Pk	Pack type
20835.294	1 l	Glass bottle

Isohexane (mixture of isomers)

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 92112-69-1
Index 601-007-00-7
EINECS: 295-570-2
UN: 1208
ADR 3,II
Flash Pt: -33 °C

C_6H_{14}
M.W. 86.18 g/mol
Density: 0.653 g/cm³ (25 °C)
Boiling Pt: 60 °C (1013 hPa)
Melting Pt: -154 °C
Storage Temperature: Ambient temperature

Isohexane (mixture of isomers) HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 97 %
Water	Max. 0.01 %
Evaporation residue	Max. 0.0005 %
n-Hexane	Max. 3 %
Transmittance (205 nm)	Min. 50 %
Transmittance (220 nm)	Min. 80 %
Transmittance (230 nm)	Min. 95 %
Transmittance (280 nm)	Min. 98 %

Cat. No.	Pk	Pack type
83622.320	2,5 l	Glass bottle

Isohexane (mixture of isomers) GPR RECTAPUR®

n-Hexane	Max. 5 %
Evaporation residue	Max. 50 ppm
Total S (Sulphur)	Max. 50 ppm

Cat. No.	Pk	Pack type
287206A	2,5 l	Glass bottle

Isomount 2000 mounting media

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311
UN: 1866
ADR 3,II

Not to be used as power or heating fuel.
Storage Temperature: Ambient temperature

NEW Isomount 2000 mounting media Q PATH®

Intermediate viscosity mounting media for histology.
An excellent alternative to DPX

IVD

Cat. No.	Pk	Pack type
05547535.	500 ml	Plastic bottle
05547536.	1 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Isooctane

See 2,2,4-Trimethylpentane p.516

Isopentyl alcohol

See Isoamyl alcohol p.253

Isopropanol

See 2-Propanol p.392

4-Isopropyl-3-hydroxytoluene

See Thymol p.505

Isopropyl alcohol

See 2-Propanol p.392

6-Isopropyl-m-cresol

See Thymol p.505

2-Isopropyl-5-methylphenol

See Thymol p.505

IPTG

See IPTG (Isopropyl-β-D-thiogalactopyranoside) p.247

Kanamycin sulphate

Danger
H360
P201 P281 P308+P313

CAS 25389-94-0
EINECS: 246-933-9

$C_{18}H_{38}N_4O_{15}S$
Storage Temperature: Ambient temperature

VWR CHEMICALS Kanamycin sulphate

Binds to the 70S subunit of bacterial ribosome. Recommended working concentration: 30 µg/ml.

Chromatographic Purity	PASS
Crystallinity	PASS
Expiration Date	REPORT
Identification	PASS
Loss on Drying	4.0 %
pH (1%, Water) @25°C	6.5 - 8.5
Potency (Anhydrous)	750 mcg/mg
Potency (As is)	REPORT
Residue on Ignition	1.0 %

Cat. No.	Pk	Pack type
0408-EU-10G	10 g	Plastic bottle for solids
0408-EU-25G	25 g	Plastic bottle for solids

VWR CHEMICALS Kanamycin sulphate 50 mg/ml aqueous solution, ultrapure

Binds to the 70S subunit of bacterial ribosome. Recommended working concentration: 30 µg/ml.

Abs.@208 nm (10 %, Water)	0.90 - 1.1
Clarity	PASS

Cat. No.	Pk	Pack type
E713-20ML	20 ml	Vial

VWR CHEMICALS Kanamycin sulphate 25 mg/ml aqueous solution, ultrapure

Kanamycin is an aminoglycoside antibiotic that inhibits protein synthesis in gram-negative and gram-positive bacteria and in mycoplasma. Recommended working concentration: 30 µg/ml.

Abs.@208 nm (20 %, Water)	0.90 - 1.1
Clarity	PASS

Cat. No.	Pk	Pack type
E710-20ML	20 ml	Vial

Kestranal® 2S dihydrate

See EDTA disodium salt dihydrate p.160

Kestranal® 4S

See EDTA tetrasodium salt p.162

Kestranal® A

See EDTA (Ethylenediamine tetraacetic acid) p.159

Kestranal® FE PA

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid) ... p.162

α-Ketoglutaric acid disodium salt

CAS 305-72-6
EINECS: 206-167-8

$NaOOCCH_2CH_2COCOONa \cdot 2H_2O$
M.W. 190.06 g/mol
Storage Temperature: 2 - 8°C

VWR CHEMICALS α-Ketoglutaric acid disodium salt, anhydrous, reagent grade

Identification	PASS
Moisture	3 %
Purity	97.0 %

Cat. No.	Pk	Pack type
0345-25G	25 g	Plastic bottle for solids
0345-250G	250 g	Plastic bottle for solids
0345-1KG	1 kg	Plastic bottle for solids

2-Ketopropionic acid sodium salt

See Sodium pyruvate p.455

α-Ketopropionic acid sodium salt

See Sodium pyruvate p.455

Drum Keys

A selection of drum keys for removal of closures, plugs or drum tab-seal caps for 10 litre containers up to 200 litre drums.

Type	Pk	Cat. No.
Drum key for 2" and 3/4" plugs and seal caps	1	238-0020
Drum key, metal, for seals and 2" and 3/4" closures on metal drums	1	29548.061
Drum keys, plastic, for tightening/opening caps for 10 L (DIN 51) plastic drums	1	29548.064
Drum key to open DIN 32/45/54/80 caps	1	84544.001
Drum keys, plastic, for tightening/opening caps for 20 or 25 L (DIN 61) plastic drums	1	29548.053

Labofix (vaporizer)

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

NEW **Labofix Q PATH® for microscopy**

Water soluble fixing solution for cytodiagnosis.

IVD

Cat. No.	Pk	Pack type
13356770.	6 x 100 ml	Vaporizer

IVD registered. Instructions for use on vwr.com- just search for the product.

NEW **Labofix Q PATH®**

Recommended for fixing gynaecological smears.

IVD

Cat. No.	Pk	Pack type
00556760.	12 x 200 ml	Aerosol can

IVD registered. Instructions for use on vwr.com- just search for the product.

Detergents and cleaning agents, LABWASH® Premium

A more concentrated version of the LABWASH® range.

- Residue-free laboratory glassware cleaning
- Excellent cleaning power at low dosage levels
- NTA-free (no Nitrilotriacetic acid)
- Protects the environment, active ingredients are biodegradable
- Acid rinse concentrates available to neutralise alkaline cleaners

Application	Manual Cleaning					Machine cleaning							
	LABWASH® Premium Extra	LABWASH® Premium Neutral	LABWASH® Premium Extra PF	LABWASH® Premium Classic	Sodium Hydroxide solution	LABWASH® Premium Powder	LABWASH® Premium Powder PF	LABWASH® Premium Alkamatic	LABWASH® Premium Alkamatic PF	LABWASH® Premium Acidrinse P	LABWASH® Premium Acidrinse C	LABWASH® Premium EasyRinse	LABWASH® Premium Pure
Aldehyde resins	x		x	x									x
Aluminium		x											
Amines					x					x	x		x
Analytical laboratories	x	x	x	x		x		x				x	x
Balsam resins	x		x	x			x		x				x
Bitumen	x		x										
Blood	x		x	x			x						x
Brass		x											x
Breweries	x	x	x	x	x	x	x		x				x
Bronze		x					x						
Calcareous deposits					x					x	x	x	
Carbonates					x					x		x	
Cells		x		x								x	
Chemical glassware	x	x	x	x		x		x					
Culture media				x			x		x				
Dairies	x	x	x	x	x	x	x		x				
Distillation residues	x		x	x			x		x			x	
Enzymes	x	x	x	x		x	x	x	x	x	x		x
Fat residues	x		x	x			x						x
Felt-tip pen	x	x	x			x	x	x	x				
Foam													
Food industries	x	x	x	x	x	x	x		x				
Food waste	x	x		x		x	x	x	x				x
Glass and porcelain equipment	x	x		x			x		x			x	
Grease for joints	x			x			x		x				x
Heavy oils	x		x	x			x		x				x
Hydroxides					x					x	x		
Lab. floors	x		x		x								
Metal equipment		x				x		x					
Mucus				x									
Neutralisation					x					x			
Nickel	x	x	x			x					x		
Oil	x		x	x	x		x		x				
Petri dishes	x	x	x	x		x	x	x	x	x	x		
Phosphate analysis equip.			x										
Pipettes		x		x		x		x					
Plaster residues	x	x	x		x								
Plastic equipment						x		x				x	
Precision equipment		x		x									
Protein residues	x		x	x			x						
Proteins	x		x	x					x				
Quartz equipment		x											
Rubber		x											
Saliva	x		x	x									
Silicones	x		x						x		x		

Spectacle lenses		x											
Stainless steel	x	x	x	x	x				x				
Thin film plates	x		x		x	x							
Tiled surfaces	x		x		x				x				
Tough residues				x			x						
Ultrasound	x	x	x										
Wax	x		x	x									
Zinc		x											

Description	pH value	Temp. range	Pk	Cat. No.
Manual cleaning - immersion cleaning				
LABWASH® Premium Classic, mildly alkaline concentrate for manual cleaning of laboratory glassware	12,2	20...85 °C	1 l	84545.290
			5 l	84545.360
			10 l	84545.410
			20 l	84545.440
LABWASH® Premium Extra, concentrate for the manual cleaning of laboratory glassware and precision components	11,8	10...40 °C	1 l	84546.290
			5 l	84546.360
			10 l	84546.410
			20 l	84546.440
LABWASH® Premium Extra PF, phosphate-free concentrate for manual cleaning of laboratory glassware	12,7	10...70 °C	1 l	84554.290
			5 l	84554.360
			10 l	84554.410
			20 l	84554.440
LABWASH® Premium Neutral, pH-neutral concentrate for the cleaning of laboratory glassware and precision components	7,4	10...60 °C	1 l	84547.290
			5 l	84547.360
			10 l	84547.410
			20 l	84547.440
Automated cleaning - laboratory washing machines				
LABWASH® Premium Powder, mildly alkaline cleaning powder for laboratory washing machines	12,1	10...60 °C	1 kg	84548.290
			10 kg	84548.410
LABWASH® Premium Powder PF, phosphate-free, alkaline powder cleaner for laboratory washing machines	13	0...95 °C	1 kg	84557.290
			10 kg	84557.410
LABWASH® Premium Pure, concentrate for soak and spray cleaning of laboratory glassware	11,8		1 l	84555.290
			5 l	84555.360
			10 l	84555.410
			20 l	84555.440
LABWASH® Premium Alkamatic, mildly alkaline, liquid cleaning concentrate for washing machines	12	20...95 °C	1 l	84549.290
			5 l	84549.360
			10 l	84549.410
			20 l	84549.440
LABWASH® Premium Alkamatic LA, highly alkaline, intensive cleaner for laboratory washing machines	12,5		1 l	84556.290
			5 l	84556.360
			10 l	84556.410
			20 l	84556.440
LABWASH® Premium Alkamatic PF, alkaline, phosphate-free, chlorine-free, liquid cleaning concentrate for washing machines for heavy contamination	11,6	10...95 °C	1 l	84550.290
			5 l	84550.360
			10 l	84550.410
			20 l	84550.440
LABWASH® Premium Acidrinse P, neutraliser and pre-cleaner for washing machines	2,1	40...85 °C	1 l	84552.290
			5 l	84552.360
			10 l	84552.410
			20 l	84552.440
LABWASH® Premium Acidrinse C, phosphate-free neutraliser for washing machines	2,7		1 l	84551.290
			5 l	84551.360
			10 l	84551.410
			20 l	84551.440
LABWASH® Premium Easyrinse, acidic, ecological rinsing concentrate with shiny effect	2,2	0...60 °C	1 l	84553.290
			5 l	84553.360
			10 l	84553.410
			20 l	84553.440

LABWASH® cleaning agents

- Residue-free laboratory glassware cleaning
- Excellent cleaning power at low dosage levels
- Protects the environment
- Acid rinse concentrates available to neutralise alkaline cleaners

Type	Description	Pk	Cat. No.
Manual cleaning - immersion cleaning			
LABWASH® classic	Strongly alkaline cleaner for removal of organic and inorganic contamination; adequate substitute for chromosulphuric acid; contains active chlorine	1 kg	29870.318
		5 kg	29870.360
		10 kg	29870.411
		28 kg	29870.488
LABWASH® extra	Mildly alkaline, low in phosphate, also used for sensitive laboratory equipment; pH value of 11,5 in 1% solution	1,3 kg	29871.312
		7 kg	29871.367
LABWASH® extra PF	Phosphate-free, versatile, effective cleaner; environmentally friendly; especially useful for pipette washers	1 kg	83901.310
		5 kg	83901.360
		10 kg	83901.410
		28 kg	83901.480
LABWASH® pure	Surfactant-free, non foaming cleaner especially suitable for glassware used for organic trace analysis and also highly effective with organic and inorganic residues	1 kg	83902.310
		5 kg	83902.360
		10 kg	83902.410
		30 kg	83902.480
LABWASH® neutra	pH neutral, phosphate- and silicate-free, extremely gentle on materials, removes light contamination and is suitable for use with hard water	5 kg	29872.360
Automated cleaning - washing machines			
LABWASH® alkamatic	Mildly alkaline liquid cleaner with oxidising action for the removal of organic and inorganic residues on laboratory glassware and reusable equipment	6 kg	29875.360
		12 kg	29875.417
		30 kg	29875.485
LABWASH® alkamatic PF	Phosphate-free, chlorine-free, alkaline liquid cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments in central sterilisation. Note: This cleaner is not compatible with aluminium, zinc, non ferrous metals, rubber or latex.	6 kg	29876.360
		12 kg	29876.411
		30 kg	29876.488
LABWASH® alkamatic LA	Strongly alkaline, surfactant-free, intensive, liquid cleaner; very effective against stubborn residues on laboratory glassware, particularly useful in microbiology and syntheses laboratories	6 kg	83903.360
		12 kg	83903.410
		30 kg	83903.480
LABWASH® powder	Mildly alkaline, chlorine- and surfactant-free cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments and anaesthesia devices in central sterilisation	1 kg	29874.312
		10 kg	29874.414
LABWASH® powder PF	Phosphate-free, alkaline, chlorine- and surfactant-free cleaner for removal of organic and inorganic impurities especially with applications where the presence of phosphate is critical	1 kg	83904.310
		10 kg	83904.410
LABWASH® acidrinse C	Phosphate- and surfactant-free neutraliser, based on organic acid, also removes acid-soluble residues	1 kg	29877.312
		5 kg	29877.367
		10 kg	29877.414
		25 kg	29877.460
LABWASH® acidrinse P	Surfactant-free neutraliser, based on inorganic acid, can also be used as pre-rinsing agent. Note: Not compatible with aluminium or zinc	7 kg	29878.361
		12 kg	29878.417
		35 kg	29878.485
LABWASH® easyrinse	Environmentally friendly rinse-aid and shine aid	1 kg	29879.318
		5 kg	29879.364
		10 kg	29879.410
		25 kg	29879.460

L-Lactate dehydrogenase (LDH)

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 9001-60-9
EINECS: 232-617-8
Storage Temperature: 2 - 8°C

L-Lactate dehydrogenase (LDH) (from porcine heart), reagent grade

Activity	> 5000 U/mL
GOT	0.04 %
GPT	0.04 %
MDH	0.01 %
Specific Activity	> 300 U/mg protein

Cat. No.	Pk	Pack type
0253-25000U	25 KU	Glass bottle
0253-100000U	100 KU	Glass bottle

(±)-Lactic acid

See DL-Lactic acid p.260

DL-Lactic acid

(±)-2-Hydroxypropanoic acid ,
(±)-2-Hydroxypropionic acid , (±)-Lactic acid

Danger
H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 598-82-3
EINECS: 209-954-4
Flash Pt: 113 °C (closed cup)

$H_3CCH(OH)COOH$
M.W. 90.08 g/mol
Density: 1.357 g/cm³ (20 °C)
Boiling Pt: 122 °C (20 hPa)
Melting Pt: 16.8 °C
Storage Temperature: Ambient temperature

Lactic acid AnalaR NORMAPUR® analytical reagent

Assay	88.0 to 92.0 %	IR Spectrum	Passes test
Reducing substances	Passes test	Volatile fatty acids	Passes test
Colouration	Max. 20 APHA	Density (20/20)	1.200 to 1.210
Ignition residue (SO_4)	Max. 100 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	As (Arsenic)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.02 %	Cu (Copper)	Max. 1 ppm
Fe (Iron)	Max. 3 ppm	Pb (Lead)	Max. 1 ppm
Zn (Zinc)	Max. 10 ppm		

Cat. No.	Pk	Pack type
101384Q	500 ml	Glass bottle

Lactic acid (≥ 50%) in aqueous solution

Danger
H315 H318
P280 P302+P352 P305+P351+P338 P309+P310

CAS 50-21-5
EINECS: 200-018-0

$H_3CCH(OH)COOH$
Density: 1.11 to 1.21 g/cm³ (20 °C)
Boiling Pt: 122 °C (20 hPa)
Storage Temperature: Ambient temperature

Lactic acid 90% in aqueous solution Ph. Eur.

Assay	88.0 to 92.0 %
Appearance	Clear viscous liquid
Identification A	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance test	Passes test
Ether-insoluble substances	Passes test
Sugars and other reducing substances	Passes test
Citric, oxalic and phosphoric acids	Passes test
Relative density	1.20 to 1.21
SO_4 (Sulphate)	Max. 200 ppm
Ca (Calcium)	Max. 200 ppm
Heavy metals (as Pb)	Max. 10 ppm
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20370.297	1 l	Plastic bottle
20370.366	5 l	Plastic container

Not for parenteral use

Lactic acid 90% in aqueous solution GPR RECTAPUR®, pure

Assay	Min. 90 %
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.1 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
20356.298	1 l	Glass bottle
20356.323	2,5 l	Glass bottle

Lactic acid 90% in aqueous solution TECHNICAL

Assay	Min. 90 %

Cat. No.	Pk	Pack type
20366.293	1 l	Glass bottle
20366.464	25 l	Plastic drum

DL-Lactic acid aluminium salt

See Aluminium trilactate p.25

(±)-Lactic acid aluminium salt

See Aluminium trilactate p.25

DL-Lactic acid magnesium salt dihydrate

See Magnesium dilactate dihydrate p.274

(±)-Lactic acid magnesium salt dihydrate

See Magnesium dilactate dihydrate p.274

Lactoflavin

See Riboflavine (Vitamin B2) p.410

Lactose monohydrate

CAS 10039-26-6
EINECS: 200-559-2

$C_{12}H_{22}O_{11}.1H_2O$
M.W. 360.32 g/mol
Melting Pt: 223 °C
Storage Temperature: Ambient temperature

Lactose monohydrate AnalaR NORMAPUR® analytical reagent

Specific optical rotation (10 %; water) 52.0 to 52.8 °
Ignition residue (SO_4) Max. 0.1 %
Water 4.8 to 5.4 %
Cu (Copper) Max. 0.5 ppm
Pb (Lead) Max. 0.5 ppm
Acidity Max. 0.005 meq/g
Insolubility in water Max. 50 ppm
As (Arsenic) Max. 1 ppm
Fe (Iron) Max. 1 ppm

Cat. No.	Pk	Pack type
101394S	500 g	Plastic bottle for solids

Lactose monohydrate GPR RECTAPUR®

Spec. opt. rotation (calc. on anhydrous) 54.4 to 55.9 °
Ignition residue (SO_4) Max. 0.1 %
Loss on drying (120°C) 4.0 to 5.5 %
Cl (Chloride) Max. 100 ppm
SO_4 (Sulphate) Max. 100 ppm

Cat. No.	Pk	Pack type
24945.291	1 kg	Plastic bottle for solids
24945.360	5 kg	Bucket (Plastic)

Lanolin

Wool fat

CAS 8006-54-0
EINECS: 232-348-6
Flash Pt: 113 °C (closed cup)
Density: 0.932 to 0.945 g/cm³ (15 °C)
Melting Pt: 38 to 44 °C

Lanolin TECHNICAL

Identification Passes test

Cat. No.	Pk	Pack type
24485.291	1 kg	Plastic bottle

Lanthanum standard solution, 100,000 mg/l La in water

CAS 7439-91-0
EINECS: 231-099-0

La
M.W. 138.91 g/mol
Storage Temperature: Ambient temperature

Lanthanum standard solution, 100,000 mg/l La in water (from $LaCl_3$) SpectrosoL® standard for AAS

(10% w/v La (Lanthanum) for atomic absorption spectroscopy (26.6% w/v $LaCl_3.7H_2O$))

Ca (Calcium) Max. 2 ppm
Pb (Lead) Max. 1 ppm
Cu (Copper) Max. 0.5 ppm
Fe (Iron) Max. 0.5 ppm
Mg (Magnesium) Max. 0.5 ppm
Zn (Zinc) Max. 0.5 ppm

Cat. No.	Pk	Pack type
140415W	1 l	Glass bottle

Lanthanum standard solution, 50,000 mg/l La in water

CAS 7439-91-0
EINECS: 231-099-0

La
M.W. 138.91 g/mol
Storage Temperature: Ambient temperature

Lanthanum standard solution, 50,000 mg/l La in water Reag. Ph. Eur. 1114001

Cat. No.	Pk	Pack type
87968.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lanthanum standard solution, 10,000 mg/l La in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-91-0
EINECS: 231-099-0
UN: 3264
ADR 8,III

La
M.W. 138.91 g/mol
Storage Temperature: Ambient temperature

Lanthanum standard solution, 10,000 mg/l La in dil. nitric acid (from La_2O_3) ARISTAR® standard for ICP

La_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455554G	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-91-0
EINECS: 231-099-0
UN: 3264
ADR 8,III

La
M.W. 138.91 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid (from La_2O_3) ARISTAR® standard for ICP

La_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455542C	100 ml	Plastic bottle
455544E	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW

Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86687.180	100 ml	Plastic bottle
86687.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lanthanum (III) chloride heptahydrate

CAS 10025-84-0
EINECS: 233-237-5

$LaCl_3 \cdot 7H_2O$
M.W. 371.37 g/mol
Boiling Pt: Min. 860 °C (1013 hPa)
Melting Pt: 96 °C
Storage Temperature: Ambient temperature

Lanthanum (III) chloride heptahydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 98 %	Identification	Passes test
Insolubility in water	Max. 0.1 %	Ca (Calcium)	Max. 10 ppm
Cu (Copper)	Max. 1 ppm	Fe (Iron)	Max. 5 ppm
Mg (Magnesium)	Max. 1 ppm	Pb (Lead)	Max. 1 ppm
Zn (Zinc)	Max. 1 ppm		

Cat. No.	Pk	Pack type
103433Q	100 g	Plastic bottle for solids

Lanthanum (III) chloride heptahydrate GPR RECTAPUR®

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
24957.188	100 g	Plastic bottle for solids
24957.268	500 g	Plastic bottle for solids

Lanthanum (III) nitrate hexahydrate

Warning
H272 H319 H335 H315
P210 P280 P305+P351+P338 P309+P310

CAS 10277-43-7
EINECS: 233-238-0
UN: 1477
ADR 5.1,III

$La(NO_3)_3 \cdot 3H_2O$
M.W. 433.01 g/mol
Density: 2.347 g/cm³ (20 °C)
Boiling Pt: 126 °C (1013 hPa)
Melting Pt: 65 to 67 °C
Storage Temperature: Ambient temperature

Lanthanum (III) nitrate hexahydrate GPR RECTAPUR®

Assay (calculated as La_2O_3) ..... Min. 99.99 %

Cat. No.	Pk	Pack type
24958.238	250 g	Plastic bottle for solids

NEW Lanthanum nitrate solution Reag. Ph. Eur. 1048001

Cat. No.	Pk	Pack type
87859.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lanthanum (III) oxide

CAS 1312-81-8
EINECS: 215-200-5

La_2O_3
M.W. 325.81 g/mol
Density: 6.51 g/cm³ (20 °C)
Boiling Pt: 4200 °C (1013 hPa)
Melting Pt: 2315 °C
Storage Temperature: Ambient temperature

Lanthanum (III) oxide GPR RECTAPUR®

Assay ..... Min. 99.995 %

Cat. No.	Pk	Pack type
24960.260	500 g	Plastic bottle for solids

Lauryl sulphate sodium salt

See Sodium dodecyl sulphate (SDS) p.439

LB Agar (Lennox), Tissue Culture Grade

VWR CHEMICALS LB Agar (Lennox), Tissue Culture Grade

Used for the propagation and maintenance of *E. coli*. Widely used for the preparation of plasmid DNA and recombinant proteins. Each pack prepares 10 × 1 l of media.

Cat. No.	Pk	Pack type
K497-10PK	10	Kit

LB Agar (Miller), Tissue Culture Grade

VWR CHEMICALS LB Agar (Miller), Tissue Culture Grade

Used for the propagation and maintenance of *E. coli*. Widely used for the preparation of plasmid DNA and recombinant proteins. Each pack prepares 10 × 1 l of media.

Cat. No.	Pk	Pack type
J104-10PK	10	Kit
J104-1KG	1 kg	Plastic bottle for solids

Lead

Danger
H360Df H302+H332 H373 H410
P201 P281 P273 P304+P340 P309+P311

CAS 7439-92-1
Index 082-001-00-6
EINECS: 231-100-4

Pb
M.W. 207.2 g/mol
Density: 11.3437 g/cm³ (20 °C)
Boiling Pt: 1740 °C (1013 hPa)
Melting Pt: 327 °C
Storage Temperature: Ambient temperature

Lead, granules TECHNICAL 2,5 mm

small shot ø 2,5 mm
Identification ..... Passes test

Cat. No.	Pk	Pack type
26472.290	1 kg	Plastic bottle for solids

Lead standard solution (0.1% Pb)

NEW Lead standard solution (0.1% Pb) Reag. Ph. Eur. 5001700

Cat. No.	Pk	Pack type
88087.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lead standard solution, 10,000 mg/l Pb in dil. nitric acid

CAS 7439-92-1
EINECS: 231-100-4
UN: 3264
ADR 8,III

Restricted to professional users.

Pb
M.W. 207.2 g/mol
Density: 1.02 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Lead standard solution, 10,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP

$Pb(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455572Y	100 ml	Plastic bottle
455574K	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lead standard solution, 1,000 mg/l Pb in dil. nitric acid

CAS 7439-92-1
EINECS: 231-100-4
UN: 3264
ADR 8,III

Pb
M.W. 207.2 g/mol
Density: 1.02 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Lead standard solution, 1,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP-MS

$Pb(NO_3)_2$ in 2% HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456772S	100 ml	Plastic bottle

Supplied with certificate of analysis.

Lead standard solution, 1,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP

$Pb(NO_3)_2$ in 2% HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455562G	100 ml	Plastic bottle
455564Y	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lead standard solution, 1,000 mg/l Pb in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86699.180	100 ml	Plastic bottle
86699.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lead (II) acetate trihydrate

Acetic acid lead (II) salt trihydrate , Lead diacetate trihydrate

Danger
H360Df H373 H410
P201 P281 P273 P309+P311

CAS 6080-56-4
Index 082-005-00-8
EINECS: 206-104-4
UN: 1616
ADR 6.1,III

Restricted to professional users.

$(H_3CCOO)_2Pb.3H_2O$
M.W. 379.34 g/mol
Density: 2.55 g/cm³ (20 °C)
Boiling Pt: 280 °C (1013 hPa)
Melting Pt: 75 °C
Storage Temperature: Ambient temperature

Lead (II) acetate trihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	pH (20°C; 10 %)	5.0 to 7.5
Insolubility in water	Max. 50 ppm	Total N (Nitrogen)	Max. 20 ppm
Cl (Chloride)	Max. 5 ppm	NH_4 (Ammonium)	Max. 20 ppm
Ca (Calcium)	Max. 50 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm	K (Potassium)	Max. 50 ppm
Na (Sodium)	Max. 50 ppm		

Cat. No.	Pk	Pack type
26483.231	250 g	Plastic bottle for solids
26483.297	1 kg	Plastic bottle for solids

Lead (II) acetate trihydrate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
26478.290	1 kg	Plastic bottle for solids

NEW Lead acetate solution Reag. Ph. Eur. 1048103

Cat. No.	Pk	Pack type
87860.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lead (II) acetate on cotton

Index 082-001-00-6

$(H_3CCOO)_2Pb$
M.W. 325.29 g/mol

Lead acetate cotton Reag. Ph. Eur. 1048101

Cat. No.	Pk	Pack type
85868.130	10 g	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lead (II) acetate paper

Lead (II) acetate paper Reag. Ph. Eur. 1048102 for detection of hydrogen sulfide and sulfide

Cat. No.	Pk	Pack type
85869.150	50	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lead (II) acetate basic

Acetic acid lead (II) salt basic , Lead subacetate

Danger
H351 H360Df H373 H410
P201 P281 P273 P309+P311

CAS 1335-32-6
Index 082-007-00-9
EINECS: 215-630-3
UN: 1616
ADR 6.1,III

Restricted to professional users.

$(CH_3COO)_2Pb{\cdot}2Pb(OH)_2$
M.W. 807.72 g/mol
Storage Temperature: Ambient temperature

Lead (II) acetate basic, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26488.363	5 kg	Bucket (Plastic)

Lead (II) acetate basic (≥ 10%) in aqueous solution

Danger
H351 H360Df H373 H410
P201 P281 P273 P309+P311

CAS 1335-32-6
EINECS: 215-630-3
UN: 3082
ADR 9,III

Restricted to professional users.

$(CH_3COO)_2Pb{\cdot}2Pb(OH)_2$
Storage Temperature: Ambient temperature

Lead (II) acetate basic d = 1.21 g/cm³ in aqueous solution TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26489.297	1 l	Glass bottle

Lead (II) carbonate basic

Lead carbonat basic , Lead (II) carbonate hydroxide , Lead (II) hydroxide carbonate

Danger
H360Df H302+H332 H373 H410
P201 P281 P273 P304+P340 P309+P311

CAS 1319-46-6
Index 082-001-00-6
EINECS: 215-290-6
UN: 2291
ADR 6.1,III

Restricted to professional users.

$(PbCO_3)_2{\cdot}Pb(OH)_2$
M.W. 775.63 g/mol
Density: 6.06 g/cm³ (20 °C)
Melting Pt: 400 °C

Lead (II) carbonate basic, powder TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
26505.294	1 kg	Plastic bottle for solids

Lead (II) carbonate hydroxide

See Lead (II) carbonate basic p.264

Lead diacetate trihydrate

See Lead (II) acetate trihydrate p.263

Lead dinitrate

See Lead (II) nitrate p.264

Lead (II) hydroxide carbonate

See Lead (II) carbonate basic p.264

Lead monoxide

See Lead (II) oxide p.265

Lead (II) nitrate

Lead dinitrate

Danger
H360Df H302+H332 H373 H410
P201 P281 P273 P304+P340 P309+P311

CAS 10099-74-8
Index 082-001-00-6
EINECS: 233-245-9
UN: 1469
ADR 5.1,II

Restricted to professional users.

$Pb(NO_3)_2$
M.W. 331.21 g/mol
Density: 4.53 g/cm³ (20 °C)
Melting Pt: 450 to 470 °C
Storage Temperature: Ambient temperature

NEW Lead (II) nitrate AnalaR NORMAPUR®

Assay ..... Min. 99.0 %
Cl (Chloride) ..... Max. 10 ppm
Cu (Copper) ..... Max. 20 ppm
K (Potassium) ..... Max. 50 ppm
Insolubility in water ..... Max. 50 ppm
Ca (Calcium) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm
Na (Sodium) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
84847.180	100 g	Plastic bottle for solids
84847.290	1 kg	Plastic bottle for solids

Lead (II) nitrate GPR RECTAPUR®

Assay ..... Min. 98.5 %
Substances not precipitated by H_2SO_4 ..... Max. 0.5 %
Cl (Chloride) ..... Max. 50 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
26554.260	500 g	Plastic bottle for solids

Lead nitrate solution

Danger
H360Df H411
P201 P281 P273 P309+P311
UN: 3082
ADR 9,III

NEW Lead nitrate solution Reag. Ph. Eur. 1048301

Cat. No.	Pk	Pack type
87861.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Lead (II) oxide

Lead monoxide

Danger
H360Df H302+H332 H373 H410
P201 P281 P273 P304+P340 P309+P311

CAS 1317-36-8
Index 082-001-00-6
EINECS: 215-267-0
UN: 2291
ADR 6.1,III

Restricted to professional users.

PbO
M.W. 223.2 g/mol
Density: 9.5 g/cm³ (20 °C)
Boiling Pt: 1470 °C (1013 hPa)
Melting Pt: 888 °C

Lead (II) oxide, yellow TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
26566.294	1 kg	Plastic bottle for solids

Lead (II,IV) oxide

Minium , Orange lead

Danger
H360Df H302+H332 H373 H410
P201 P281 P273 P304+P340 P309+P311

CAS 1314-41-6
Index 082-001-00-6
EINECS: 215-235-6
UN: 1479
ADR 5.1,II

Restricted to professional users.

Pb_3O_4
M.W. 685.6 g/mol
Density: 9.1 g/cm³ (20 °C)
Boiling Pt: 2682 °C (1013 hPa)
Melting Pt: 830 °C

Lead (II,IV) oxide, red TECHNICAL

Assay (calculated as PbO_2) ..... Min. 30 %

Cat. No.	Pk	Pack type
26572.295	1 kg	Plastic bottle for solids

Lead subacetate

See Lead (II) acetate basic p.264

LEB broth

See Microbiology

Lecithin from egg yolk

CAS 93685-90-6
EINECS: 297-639-2

Lecithin from egg yolk GPR RECTAPUR®

Loss on drying (100°C) ..... Max. 6 %
N (Nitrogen) ..... 1.4 to 1.9 %
P (Phosphorus) (on dry substance) ..... Min. 3 %
Solubility in ethanol 96 % ..... Min. 90 %

Cat. No.	Pk	Pack type
24966.180	100 g	Plastic bottle for solids

Lecithin from soybean

CAS 8030-76-0
EINECS: 310-129-7

Lecithin from soybean, powder GPR RECTAPUR®

Insolubility in acetone ..... Min. 62 %
Peroxide value ..... Max. 5

Cat. No.	Pk	Pack type
24967.183	100 g	Plastic bottle for solids

Lecithin from soybean

Microbiological test ..... passes test
Sulphated ash ..... Max 10 %
Escherichia coli (absent in 1g) ..... passes test
Enterobacteriaceae (absent in 1g) ..... passes test
Salmonella species (absent in 10g) ..... passes test
Nitrogen ..... 0.8 to 1.2 %
P (Phosphorus) ..... 2.0 to 2.5 %

Cat. No.	Pk	Pack type
298632A	100 g	Plastic bottle

LEGIONELLA Agar

See Microbiology

Leishman's eosin-methylene blue solution in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 12627-53-1
EINECS: 235-732-1
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

Leishman's eosin-methylene blue solution in methanol GURR® for microscopical staining

IVD

Absorption maximum λ 1 ..... 645 to 655 nm
Absorption maximum λ 2 ..... 520 to 525 nm
Absorbance A1, λ 1 (λ max; diluted 1:250; 1 cm) ..... 0.800 to 1.000
Absorbance A2, λ 1 (λ max; diluted 1:250; 1 cm) ..... 0.420 to 0.540
Suitability for microscopy (Blood smear) ..... Passes test
Nuclei ..... Violet
Erythrocytes ..... Pink-brownish
Eosinophilic granules ..... Red to red-brown
Neutrophilic granules ..... Light violet
Lymphocyte cytoplasm ..... Blue

Cat. No.	Pk	Pack type
350224L	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Lenzol Immersion oil Gurr®

See Immersion oil (contains dibutyl phthalate and chloroparaffin) p.239

Letheen broth

See Microbiology

Leupeptin hemisulphate (Ac-Leu-Leu-Arg-al hemisulphate) monohydrate

CAS 103476-89-7

$C_{40}H_{78}N_{12}O_{12}S$
Storage Temperature: -20°C

Leupeptin hemisulphate (Ac-Leu-Leu-Arg-al hemisulphate) monohydrate, ultrapure

A reversible inhibitor of cysteine proteases and serine proteases resembling trypsin. Inhibits trypsin, plasmin, papain, kallikrein, thrombin, and cathepsin A and B.

Specific Rotation (2%, Water) ..... -85.0 to -79.0 degrees

Cat. No.	Pk	Pack type
J580-5MG	5 mg	Glass bottle
J580-25MG	25 mg	Glass bottle

Leupeptin hemisulphate (Ac-Leu-Leu-Arg-al hemisulphate) monohydrate, proteomics grade

A reversible inhibitor of cysteine proteases and serine proteases resembling trypsin. Inhibits trypsin, plasmin, papain, kallikrein, thrombin, and cathepsin A and B.

Specific Rotation (2%, Water) ..... -85.0 to -79.0 degrees

Cat. No.	Pk	Pack type
M180-5MG	5 mg	Glass bottle
M180-25MG	25 mg	Glass bottle

Levoglutamide

See L(+)-Glutamine..... p.201

D(-)-Levulose

See D(-)-Fructose p.192

Light liquid paraffin

See Paraffin, liquid..... p.338

Linamarase (β-D-Glucosidase)

Danger
H334
P261 P285 P304+P341 P342+P311

CAS 9001-22-3
Index 647-001-00-8
EINECS: 232-589-7

Linamarase (β-D-Glucosidase) (from cassava)

1 EU hydrolyses 1 µmol of linamarin per minute at 30 °C in phosphate buffer pH 6.0.

Cat. No.	Pk	Pack type
391172R	50 EU	Vial

Linoleic acid

cis,cis-9,12-Octadecadienoic acid , 9Z,12Z-Octadecadienoic acid

CAS 60-33-3
EINECS: 200-470-9

$C_{18}H_{32}O_2$
M.W. 280.45 g/mol
Density: 0.9 g/cm³ (20 °C)
Boiling Pt: 360 °C (1013 hPa)
Melting Pt: -5 °C
Storage Temperature: Ambient temperature

Linoleic acid, ultrapure

Purity..... 99.0 %
Activity @25 °C..... REPORT
Albumin..... NONE
Salmonella..... NONE

Cat. No.	Pk	Pack type
0660-10G	10 g	Plastic bottle

Liquid cleaning concentrate, tenside

Storage Temperature: Ambient temperature

Teepol® L

A neutral liquid detergent for use in hard, soft and salt water leaving surfaces clean and bright. A highly effective wetting agent. Particularly good for cleaning laboratory glassware - residual surface activity may be removed by subsequent acid hydrolysis.

Cat. No.	Pk	Pack type
560116C	20 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Liquid for manometer with sloping tube

Danger
H225 H302
P210 P243 P280 P301+P312
UN: 1170
ADR 3,II
Flash Pt: 14 °C
Storage Temperature: Ambient temperature

Liquid for manometer with sloping tube

for manometer

Identification ..... Passes test

Cat. No.	Pk	Pack type
24989.202	125 ml	Glass bottle

Lithium standard solution, 10,000 mg/l Li in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-93-2
EINECS: 231-102-5
UN: 3264
ADR 8,III

Li
M.W. 6.94 g/mol
Storage Temperature: Ambient temperature

Lithium standard solution, 10,000 mg/l Li in dil. nitric acid (from Li_2CO_3) ARISTAR® standard for ICP

Li_2CO_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455594X	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lithium standard solution, 10,000 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ICP-MS

Li_2CO_3 in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456782U	100 ml	Plastic bottle

Supplied with certificate of analysis.

Lithium standard solution, 1,000 mg/l Li in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-93-2
EINECS: 231-102-5
UN: 3264
ADR 8,III

Li
M.W. 6.94 g/mol
Storage Temperature: Ambient temperature

Lithium standard solution, 1,000 mg/l Li in dil. nitric acid (from Li_2CO_3) ARISTAR® standard for ICP

Li_2CO_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455582K	100 ml	Plastic bottle
455584M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lithium standard solution, 1,000 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ion chromatography

Li in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458242F	100 ml	Plastic bottle

Lithium standard solution, 1,000 mg/l Li in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86688.180	100 ml	Plastic bottle
86688.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Lithium standard solution, 200 mg/l Li in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-93-2
EINECS: 231-102-5
UN: 3264
ADR 8,III

Li
M.W. 6.94 g/mol
Storage Temperature: Ambient temperature

Lithium standard solution, 200 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ion chromatography

Li in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458322E	100 ml	Plastic bottle

Lithium bromide

Warning
H302
P301+P312

CAS 7550-35-8
EINECS: 231-439-8

LiBr
M.W. 86.85 g/mol
Density: 3.46 g/cm³ (20 °C)
Boiling Pt: 1265 °C (1013 hPa)
Melting Pt: 550 °C
Storage Temperature: Ambient temperature

Lithium bromide GPR RECTAPUR®

Assay	Min. 99 %
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 50 ppm
Cl (Chloride)	Max. 0.03 %
Heavy metals (as Pb)	Max. 10 ppm
Ba (Barium)	Max. 30 ppm

Cat. No.	Pk	Pack type
25002.266	500 g	Plastic bottle for solids

Lithium carbonate

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 554-13-2
EINECS: 209-062-5

Li_2CO_3
M.W. 73.89 g/mol
Density: 2.11 g/cm³ (20 °C)
Melting Pt: 720 °C
Storage Temperature: Ambient temperature

Lithium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99 %	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in hydrochloric acid	Max. 100 ppm	Cl (Chloride)	Max. 20 ppm
NH_4 (Ammonium)	Max. 5 ppm	NO_3 (Nitrate)	Max. 5 ppm
SO_4 (Sulphate)	Max. 0.02 %	Ca (Calcium)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm	K (Potassium)	Max. 50 ppm
Mg (Magnesium)	Max. 10 ppm	Na (Sodium)	Max. 50 ppm
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
25007.230	250 g	Plastic bottle for solids

Lithium carbonate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %
Ca + Mg (as Ca)	Max. 0.04 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
25006.236	250 g	Plastic bottle for solids
25006.293	1 kg	Plastic bottle for solids

Lithium chloride

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 7447-41-8
EINECS: 231-212-3

LiCl
M.W. 42.39 g/mol
Density: 2.07 g/cm³ (20 °C)
Boiling Pt: 1382 °C (1013 hPa)
Melting Pt: 614 °C
Storage Temperature: Ambient temperature

Lithium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (20 °C; 5 %)	5.0 to 9.0
Heavy metals (as Pb)	Max. 5 ppm	Total N (Nitrogen)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ba (Barium)	Max. 20 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 0.05 %	Mg (Magnesium)	Max. 50 ppm
Na (Sodium)	Max. 0.05 %	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
25012.237	250 g	Plastic bottle for solids
25012.260	500 g	Plastic bottle for solids
25012.363	5 kg	Plastic bottle for solids

Lithium chloride Electran® Molecular biology grade

Assay	Min. 99 %
Appearance	White crystalline powder
DNases	Not detected
RNases	Not detected
Proteases	Not detected
pH (5 %)	5 to 7
Insoluble substances	Passes test
Loss on drying	Max. 1 %
SO_4 (Sulphate)	Max. 0.01 %
Heavy metals (as Pb)	Max. 0.0005 %
As (Arsenic)	Max. 0.005 %
Ca (Calcium)	Max. 0.01 %
Fe (Iron)	Max. 0.0005 %
Na (Sodium)	Max. 0.1 %
Mg (Magnesium)	Max. 0.005 %

Cat. No.	Pk	Pack type
437032G	50 g	Plastic bottle
437033H	250 g	Plastic bottle

Lithium chloride for biotechnology

Insolubles	0.01 %
Iron	10 ppm
Purity	99.0 %

Cat. No.	Pk	Pack type
0416-100G	100 g	Plastic bottle for solids
0416-500G	500 g	Plastic bottle for solids

Lithium chloride TECHNICAL, purified

Assay	Min. 98.0 %

Cat. No.	Pk	Pack type
25009.236	250 g	Plastic bottle for solids
25009.293	1 kg	Plastic bottle for solids
25009.362	5 kg	Bucket (Plastic)
25009.464	25 kg	Bucket (Plastic)

Lithium chloride (≥ 5.9 mol/l) in aqueous solution

Warning
H302 H319 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 7447-41-8
EINECS: 231-212-3

LiCl
Storage Temperature: Ambient temperature

Lithium chloride 8 mol/l in aqueous solution for biotechnology

A convenient, ready-to-use solution that helps to remove inhibitors of cDNA synthesis and translation.

DNase	NONE
Protease	NONE
RNase	NONE
Titration	7.7 - 8.2 M

Cat. No.	Pk	Pack type
K445-100ML	100 ml	Plastic bottle
K445-500ML	500 ml	Plastic bottle

Lithium dodecyl sulphate

Dodecyl sulphate lithium salt , Dodecyl sulphuric acid lithium salt , Lauryl sulphate lithium salt , Lithium lauryl sulphate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 2044-56-6
EINECS: 218-058-2

$C_{12}H_{25}LiO_4S$
M.W. 272.34 g/mol
Storage Temperature: Ambient temperature

Lithium dodecyl sulphate, high purity

Abs.@260 nm (5 %, Water)	0.1
Abs.@280 nm (5 %, Water)	0.1
Loss on Drying	3.0 %
Purity	99.0 %

Cat. No.	Pk	Pack type
0782-25G	25 g	Plastic bottle for solids

Lithium hydroxide monohydrate

Danger
H301 H314
P280 P301+P330+P331 P304+P340 P309+P310

CAS 1310-66-3
EINECS: 215-183-4
UN: 2680
ADR 8,II

$LiOH \cdot 1H_2O$
M.W. 41.96 g/mol
Density: 1.51 g/cm³ (20 °C)
Boiling Pt: 920 °C (1013 hPa)
Melting Pt: 462 °C
Storage Temperature: Ambient temperature

Lithium hydroxide monohydrate GPR RECTAPUR®

Assay ..... Min. 95 %
Lithium carbonate ..... Max. 3 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 0.02 %
SO_4 (Sulphate) ..... Max. 0.05 %
K (Potassium) ..... Max. 0.05 %
Na (Sodium) ..... Max. 0.2 %

Cat. No.	Pk	Pack type
24994.368	5 kg	Bucket (Plastic)

Lithium nitrate

Warning
H272
P210 P280

CAS 7790-69-4
EINECS: 232-218-9
UN: 2722
ADR 5.1,III

$LiNO_3$
M.W. 68.95 g/mol
Density: 2.38 g/cm³ (20 °C)
Melting Pt: 255 °C
Storage Temperature: Ambient temperature

Lithium nitrate, purified

Assay ..... Min. 99.0 %
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
25029.268	500 g	Plastic bottle for solids

di-Lithium tetraborate

Lithium tetraborate

CAS 12007-60-2
EINECS: 234-514-3

$Li_2B_4O_7$
M.W. 169.12 g/mol
Density: 1.4 g/cm³ (25 °C)
Melting Pt: 918 °C
Storage Temperature: Ambient temperature

di-Lithium tetraborate for X-Ray analysis

Assay ..... Min. 99.0 %
Suited for analysis by fluorescence X ..... Passes test
Apparent volume weight (g/100 ml) ..... Min. 40
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 5 ppm
Ca (Calcium) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm
K (Potassium) ..... Max. 50 ppm
Na (Sodium) ..... Max. 0.1 %
Pb (Lead) ..... Max. 2 ppm

Cat. No.	Pk	Pack type
25040.234	250 g	Plastic bottle for solids
25040.291	1 kg	Plastic bottle for solids

Litmus 2 % aqueous solution

CAS 1393-92-6
EINECS: 215-739-6

Litmus 2 % aqueous solution TECHNICAL pH-indicator

Identification ..... Passes test

Cat. No.	Pk	Pack type
31725.265	500 ml	Glass bottle

Losolin® IV

Danger
H302 H304 H314 H411
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 85536-14-7
EINECS: 287-494-3
UN: 2586
ADR 8,III

Losolin® IV Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153203.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Luff-Schoorl's reagent

Danger
H314
P280 P301+P330+P331 P305+P351+P338 P309 +P310

Luff-Schoorl's reagent for quantitative determination of reducing sugars

Assay ..... Passes test
Density (20/4) ..... 1.140 to 1.160
pH (20°C) ..... 9.70 to 10.30

Cat. No.	Pk	Pack type
5058.1000	1 l	Plastic bottle
5058.5000	5 l	Plastic container

Lugol solution stabilized

NEW Lugol solution stabilized

Cat. No.	Pk	Pack type
911520ZA	1 l	Plastic bottle

Lugol's iodine solution

Density: 1.01 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Lugol's iodine solution

IVD

Suitability for microscopy ..... Passes test
Staphylococcus aureus ..... Dark bluish violet
E.coli ..... pink to red

Cat. No.	Pk	Pack type
351903Y	250 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-94-3
EINECS: 231-103-0
UN: 3264
ADR 8,III

Lu
M.W. 174.97 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid (from Lu_2O_3) ARISTAR® standard for ICP

Lu_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455602U	100 ml	Plastic bottle
455604W	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86689.180	100 ml	Plastic bottle
86689.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

2,4-Lutidine

2,4-Dimethylpyridine

Danger
H226 H301
P210 P243 P280 P301+P310

CAS 108-47-4
EINECS: 203-586-8
UN: 1992
ADR 3,III
Flash Pt: 50 °C

C_7H_9N
M.W. 107.16 g/mol
Density: 0.93 g/cm³ (20 °C)
Boiling Pt: 159 °C (1013 hPa)
Melting Pt: -60 °C
Storage Temperature: Ambient temperature

NEW 2,4-Lutidine TECHNICAL

n 20/D ..... 1.498 to 1.500

Cat. No.	Pk	Pack type
25044.261	500 ml	Glass bottle

L(+)-Lysine monohydrate

(S)-(+)-Lysine monohydrate , Lys monohydrate , K monohydrate , (S)-(+)-2,6-Diaminohexanoic acid monohydrate , (S)-(+)-2,6-Diaminocaproic acid monohydrate , H-Lys-OH monohydrate

CAS 39665-12-8
EINECS: 200-294-2

$H_2N(CH_2)_4CH(NH_2)CO_2H.H_2O$
M.W. 164.21 g/mol
Melting Pt: 225 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS L(+)-Lysine monohydrate, proteomics grade

Chloride ..... 300 ppm
Heavy Metals ..... 10 ppm
pH (2.5 %, Water) @25 °C ..... 9.0 - 10.5
Protease ..... NONE
Residue on Ignition ..... 0.1 %
Specific Rotation ..... +25.5 to +27.0 °
Sulphate ..... 200 ppm
TLC, Other Amino Acids ..... 0.5 %
Transmittance ..... 95.0 %
Water ..... 10.0 - 11.5 %

Cat. No.	Pk	Pack type
M234-500G	500 g	Plastic bottle for solids

L(+)-Lysine monohydrochloride

(S)-(+)-2,6-Diaminocaproic acid monohydrochloride , (S)-(+)-2,6-Diaminohexanoic acid monohydrochloride , (S)-(+)-Lysine monohydrochloride , H-Lys-OH.HCl

CAS 657-27-2
EINECS: 211-519-9

$H_2N(CH_2)_4CH(NH_2)CO_2H{\cdot}HCl$
M.W. 182.65 g/mol
Melting Pt: 263 to 264 °C
Storage Temperature: Ambient temperature

L(+)-Lysine monohydrochloride for biochemistry

Assay (calculated on dried substance) ..... Min. 99 %
Specific optical rotation (5 %; HCl 1 N) ..... 20 to 21 °
Heavy metals (as Pb) ..... Max. 10 ppm
Ninhydrin-positive substances (glycine) ..... Max. 0.1 %
NH_4 (Ammonium) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
25051.185	100 g	Plastic bottle for solids

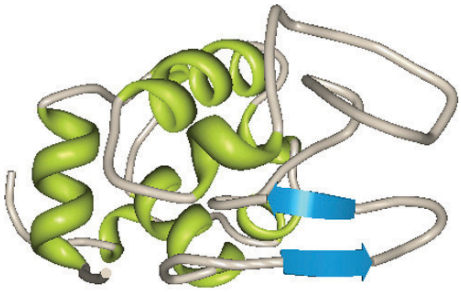
(S)-(+)-Lysine monohydrochloride

See L(+)-Lysine monohydrochloride p.270

Lysozyme (Muramidase)

CAS 12650-88-3
EINECS: 235-747-3
Storage Temperature: -20°C

Lysozyme (Muramidase) (from hen egg white), ultrapure



Structure of hen egg-white lysozyme. PDB 2LYZ. Diamond, R. (1974) *J. Mol. Biol.* 82, 371–391.

A hydrolytic enzyme specific for proteins found in the lipid bilayer of bacteria. It is useful for lysing gram positive and gram negative bacteria for subsequent nucleic acid extraction.

Activity @ 25 °C (U/mg) ..... REPORT
Albumin..... REPORT
Salmonella..... NONE

Cat. No.	Pk	Pack type
0663-5G	5 g	Glass bottle
0663-10G	10 g	Plastic bottle for solids

Magnesium (reagents for the analysis of)

Magnesium

Danger
H228 H261 H252
P210 P223 P231+P232 P240 P280 P335+P334

CAS 7439-95-4
Index 012-002-00-9
EINECS: 231-104-6

Mg
Storage Temperature: Ambient temperature

Magnesium 99.5%, ribbon TECHNICAL

Length : 24 m - width : 3 mm - thickness : 0,2 mm

Identification ..... Passes test

Cat. No.	Pk	Pack type
25072.132	25 g	Plastic bag

Magnesium 99.8%, turnings TECHNICAL

Stabilised

Identification ..... Passes test

Cat. No.	Pk	Pack type
25073.237	250 g	Plastic bottle for solids

Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-95-4
EINECS: 231-104-6
UN: 3264
ADR 8,III

Mg
M.W. 24.31 g/mol
Storage Temperature: Ambient temperature

Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ICP-MS

Mg in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457082D	100 ml	Plastic bottle

Supplied with certificate of analysis.

Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP

MgO in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455632D	100 ml	Plastic bottle
455634F	500 ml	Plastic bottle

Supplied with certificate of analysis.

Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-95-4
EINECS: 231-104-6
UN: 3264
ADR 8,III

Mg
M.W. 24.31 g/mol
Storage Temperature: Ambient temperature

Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ICP-MS

Mg in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456792W	100 ml	Plastic bottle

Supplied with certificate of analysis.

Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP

MgO in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455622B	100 ml	Plastic bottle
455624D	500 ml	Plastic bottle

Supplied with certificate of analysis.

Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ion chromatography

Mg in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458212W	100 ml	Plastic bottle

Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86690.180	100 ml	Plastic bottle
86690.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Magnesium acetate tetrahydrate

Acetic acid magnesium salt tetrahydrate , Magnesium di(acetate) tetrahydrate

CAS 16674-78-5
EINECS: 205-554-9

$(H_3CCOO)_2Mg.4H_2O$
M.W. 214.46 g/mol
Density: 1.454 g/cm³ (20 °C)
Melting Pt: 80 °C
Storage Temperature: Ambient temperature

NEW Magnesium acetate tetrahydrate AnalaR NORMAPUR®

Assay	98.0 to 102.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ba (Barium)	Max. 10 ppm
Ca (Calcium)	Max. 100 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm	Mn (Manganese)	Max. 10 ppm
Na (Sodium)	Max. 50 ppm	Sr (Strontium)	Max. 50 ppm

Cat. No.	Pk	Pack type
84849.230	250 g	Plastic bottle for solids
84849.290	1 kg	Plastic bottle for solids

Magnesium carbonate basic

See Magnesium hydroxide carbonate p.274

Magnesium carbonate hydrated basic

See Magnesium hydroxide carbonate p.274

Magnesium carbonate hydroxide

See Magnesium hydroxide carbonate p.274

Magnesium chloride

CAS 7786-30-3

EINECS: 232-094-6

$MgCl_2$

M.W. 95.21 g/mol
Density: 2.32 g/cm³ (20 °C)
Boiling Pt: 1412 °C (1013 hPa)
Melting Pt: 715 °C
Storage Temperature: Ambient temperature

Magnesium chloride, anhydrous TECHNICAL

Assay ..... Min. 98.0 %

Cat. No.	Pk	Pack type
26123DC	25 kg	Bucket (Plastic)

Magnesium chloride 4,5-hydrate

EINECS: 232-094-6

$MgCl_2.4,5H_2O$

M.W. 176.28 g/mol
Density: 1.57 g/cm³ (20 °C)
Boiling Pt: 1412 °C (1013 hPa)
Storage Temperature: Ambient temperature

Magnesium chloride 4,5-hydrate, powder GPR RECTAPUR®

Assay	Min. 97 %
Alkaline metals (as SO_4)	Max. 2.5 %
Heavy metals (as Pb)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.02 %
Ca (Calcium)	Max. 0.1 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
25106.298	1 kg	Plastic bottle for solids

Magnesium chloride hexahydrate

CAS 7791-18-6

EINECS: 232-094-6

$MgCl_2.6H_2O$

M.W. 203.3 g/mol
Density: 1.57 g/cm³ (25 °C)
Boiling Pt: 1412 °C (1013 hPa)
Melting Pt: 117 °C
Storage Temperature: Ambient temperature

Magnesium chloride hexahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.0 to 102.0 %	Acidity or alkalinity	Passes test Ph.Eur.
Appearance of solution (20 %; water)	Passes test	Identification B	Passes test
Identification C	Passes test Ph.Eur.	Solution S	Passes test
pH (20°C; 5 %)	5.0 to 6.5	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Total N (Nitrogen)	Max. 20 ppm
Water	51.0 to 55.0 %	Br (Bromide)	Max. 0.05 %
NH_4 (Ammonium)	Max. 20 ppm	NO_3 (Nitrate)	Max. 10 ppm
PO_4 (Phosphate)	Max. 5 ppm	SO_4 (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm	Ba (Barium)	Max. 20 ppm
Ca (Calcium)	Max. 30 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm	K (Potassium)	Max. 10 ppm
Mn (Manganese)	Max. 5 ppm	Na (Sodium)	Max. 10 ppm
Pb (Lead)	Max. 5 ppm	Sr (Strontium)	Max. 50 ppm
Conforms to BDH 10149	Passes test		

Cat. No.	Pk	Pack type
25108.260	500 g	Plastic bottle for solids
25108.295	1 kg	Plastic bottle for solids

Magnesium chloride hexahydrate Ph. Eur., BP, USP

Assay	98.0 to 101.0 %
Appearance	Colourless crystals
Identification A	Passes test USP
Identification B	Passes test Ph. Eur.
Identification B	Passes test USP
Identification C	Passes test Ph. Eur.
Solution S	Passes test Ph. Eur.
Appearance of solution	Passes test Ph. Eur.
Acidity or alkalinity	Passes test Ph. Eur.
pH (25°C; 5 %)	4.5 to 7.0
Insoluble matter	Max. 0.005 %
Br (Bromide)	Max. 500 ppm
SO_4 (Sulphate)	Max. 0.005 %
As (Arsenic)	Max. 2 ppm
Ba (Barium)	Passes test USP
Ca (Calcium)	Max. 0.01 %
K (Potassium)	Passes test USP
Heavy metals (as Pb)	Max. 0.001 %
Fe (Iron)	Max. 10 ppm
Water	51.0 to 55.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
87060.290	1 kg	Plastic bottle for solids
87060.360	5 kg	Bucket (Plastic)
87060.460	25 kg	Bucket (Plastic)

Magnesium chloride hexahydrate GPR RECTAPUR®

Assay	Min. 97 %
Alkaline metals (as SO_4)	Max. 2.5 %
Heavy metals (as Pb)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.02 %
Ca (Calcium)	Max. 0.1 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
25107.292	1 kg	Plastic bottle for solids
25107.361	5 kg	Bucket (Plastic)

Magnesium chloride hexahydrate Electran® Molecular biology grade

Appearance (colour)	almost white
Appearance (description)	fine-crystalline powder
Assay (complexometric)	99.0 - 102.0 %
pH-value (5 %; water)	5.0 - 6.5
Heavy metals (as Pb)	Max. 0.0005 %
Fe (Iron)	Max. 0.0005 %
DNases (Exo- and endonucleases)	non detectable
RNases	non detectable
Proteases	non detectable

Cat. No.	Pk	Pack type
436992S	100 g	Glass bottle for solids
436994U	500 g	Glass bottle for solids

Magnesium chloride (1 - 2 mol/l; 1 - 4 N) in aqueous solution

CAS 7786-30-3

EINECS: 232-094-6

$MgCl_2$

M.W. 95.21 g/mol

Storage Temperature: Ambient temperature

Magnesium chloride 1 mol/l (2 N) in aqueous solution for determining phosphatase in serum

Magnesium chloride ..... 0.999 to 1.001 mol

Cat. No.	Pk	Pack type
220933M	250 ml	Glass bottle

Magnesium chloride 1 mol/l (2 N) in aqueous solution for biotechnology, sterile

A sterile reagent for the preparation of competent cells for transformation.

Conductivity (1:100) @25°C ..... 2000 - 2400 umhos
Identification ..... PASS
Insolubles ..... 0.005 %
Nuclease ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
E525-100ML	100 ml	Plastic bottle
E525-500ML	500 ml	Plastic bottle

Magnesium di(acetate) tetrahydrate

See Magnesium acetate tetrahydrate p.272

Magnesium dilactate dihydrate

(±)-2-Hydroxypropanoic acid magnesium salt dihydrate , (±)-2-Hydroxypropionic acid magnesium salt dihydrate , (±)-Lactic acid magnesium salt dihydrate , DL-Lactic acid magnesium salt dihydrate

CAS 26867-84-5

EINECS: 242-671-4

$(H_3CCH(OH)COO)_2Mg.2H_2O$

M.W. 238.5 g/mol

Storage Temperature: Ambient temperature

Magnesium dilactate dihydrate TECHNICAL

Assay ..... 97 to 102 %

Cat. No.	Pk	Pack type
25131.262	500 g	Plastic bottle for solids

Magnesium hydroxide

CAS 1309-42-8

EINECS: 215-170-3

$Mg(OH)_2$

M.W. 58.32 g/mol

Density: 2.3261 to 2.3631 g/cm³ (20 °C)

Magnesium hydroxide Ph. Eur.

Assay ..... 95.0 to 100.5 %
Appearance ..... White fine powder
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Soluble substances ..... Max. 2.0 %
Substances insoluble in CH_3COOH ..... Max. 0.1 %
Cl (Chloride) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 0.5 %
As (Arsenic) ..... Max. 4 ppm
Ca (Calcium) ..... Max. 1.5 %
Fe (Iron) ..... Max. 0.07 %
Heavy metals (as Pb) ..... Max. 30 ppm
Loss on ignition (900°C) ..... 29.0 to 32.5 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
25059.295	1 kg	Plastic bottle for solids
25059.466	25 kg	Bucket (Plastic)

Magnesium hydroxide carbonate

Magnesium carbonate hydroxide , Magnesium carbonate hydrated basic , Magnesium carbonate basic

CAS 12125-28-9

EINECS: 235-192-7

Density: 2.16 g/cm³ (25 °C)

Boiling Pt: 3600 °C (1013 hPa)

Melting Pt: Min. 2500 °C

Storage Temperature: Ambient temperature

Magnesium hydroxide carbonate AnalaR NORMAPUR® analytical reagent

Assay (calculated as Mg) ..... Min. 24.0 %
Insolubility in hydrochloric acid ..... Max. 50 ppm
Total N (Nitrogen) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 30 ppm
Cu (Copper) ..... Max. 5 ppm
K (Potassium) ..... Max. 10 ppm
Zn (Zinc) ..... Max. 5 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Solubility in water ..... Max. 0.5 %
Cl (Chloride) ..... Max. 50 ppm
Ca (Calcium) ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm
Na (Sodium) ..... Max. 0.2 %

Cat. No.	Pk	Pack type
25096.293	1 kg	Plastic bottle for solids

Magnesium nitrate hexahydrate

Warning
H272
P210 P280

CAS 13446-18-9

EINECS: 233-826-7

UN: 1474

ADR 5.1,III

Flash Pt: 93.3 °C

$Mg(NO_3)_2.6H_2O$

M.W. 256.41 g/mol

Density: 1.63 g/cm³ (20 °C)

Boiling Pt: 330 °C (1013 hPa)

Melting Pt: 89 °C

Storage Temperature: Ambient temperature

Magnesium nitrate hexahydrate AnalaR NORMAPUR® analytical reagent

Assay ..... 99.0 to 102.0 %
Heavy metals (as Pb) ..... Max. 5 ppm
Cl (Chloride) ..... Max. 10 ppm
PO_4 (Phosphate) ..... Max. 5 ppm
Ba (Barium) ..... Max. 50 ppm
Fe (Iron) ..... Max. 5 ppm
pH (25°C; 5 %) ..... 5.0 to 7.0
Insolubility in water ..... Max. 50 ppm
NH_4 (Ammonium) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 20 ppm
Ca (Calcium) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
25135.298	1 kg	Plastic bottle for solids

Magnesium nitrate solution

NEW Magnesium nitrate solution Reag. Ph. Eur. 1049801

Cat. No.	Pk	Pack type
87862.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Magnesium oxide heavy

CAS 1309-48-4

EINECS: 215-171-9

MgO
M.W. 40.3 g/mol
Density: 3.58 g/cm³ (20 °C)
Boiling Pt: 3600 °C (1013 hPa)
Melting Pt: 2800 °C
Storage Temperature: Ambient temperature

Magnesium oxide heavy Ph. Eur.

Assay (calculated on ignited substance)	98.0 to 100.5 %
Appearance	White fine powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Soluble substances	Max. 2.0 %
Substances insoluble in CH_3COOH	Max. 0.1 %
Cl (Chloride)	Max. 0.1 %
SO_4 (Sulphate)	Max. 1.0 %
As (Arsenic)	Max. 4 ppm
Ca (Calcium)	Max. 1.5 %
Fe (Iron)	Max. 0.07 %
Heavy metals (as Pb)	Max. 30 ppm
Loss on ignition (900°C)	Max. 8.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83540.290	1 kg	Plastic bottle for solids

Magnesium oxide heavy TECHNICAL

Assay	85 to 92 %
Loss on ignition (800°C)	2 to 6 %
Silica	3 to 6 %

Cat. No.	Pk	Pack type
25056.460	25 kg	Bucket (Plastic)

Magnesium oxide light

CAS 1309-48-4

EINECS: 215-171-9

MgO
M.W. 40.3 g/mol
Density: 3.58 g/cm³ (25 °C)
Boiling Pt: 3600 °C (1013 hPa)
Melting Pt: 2800 °C

Magnesium oxide light AnalaR NORMAPUR® analytical reagent

Assay (MgO)(calculated on ignited basis)	98.0 to 100.5 %	Insolubility in hydrochloric acid	Max. 0.02 %
Loss on ignition (1000°C)	Max. 3.0 %	Solubility in water	Max. 0.7 %
Total N (Nitrogen)	Max. 20 ppm	Cl (Chloride)	Max. 0.05 %
CO_3 (as CO_2)	Max. 1.5 %	SO_4 (Sulphate)	Max. 0.02 %
Ba + Sr (as Ba)	Max. 50 ppm	Ca (Calcium)	Max. 1.1 %
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 0.05%
K (Potassium)	Max. 50 ppm	Na (Sodium)	Max. 3.0 %
Pb (Lead)	Max. 10 ppm	Zn (Zinc)	Max. 5 ppm

Cat. No.	Pk	Pack type
25061.156	50 g	Plastic bottle for solids
25061.236	250 g	Plastic bottle for solids

Magnesium oxide light TECHNICAL

Assay (on calcinated product)	Min. 97 %
Loss on ignition	Max. 8 %
Silica	Max. 1.5 %

Cat. No.	Pk	Pack type
25054.298	1 kg	Bucket (Plastic)
25054.367	5 kg	Bucket (Plastic)

Magnesium silicate monohydrate

See Talc p.492

Magnesium sulphate

CAS 7487-88-9

EINECS: 231-298-2

$MgSO_4$
M.W. 120.37 g/mol
Density: 2.65 g/cm³ (20 °C)
Melting Pt: 1127 °C
Storage Temperature: Ambient temperature

Magnesium sulphate AnalaR NORMAPUR® analytical reagent

Assay	Min. 98 %	Heavy metals (as Pb)	Max. 10 ppm
Loss on ignition (600°C)	Max. 2 %	Total N (Nitrogen)	Max. 40 ppm
Cl (Chloride)	Max. 10 ppm	As (Arsenic)	Max. 1 ppm
Ca (Calcium)	Max. 0.04 %	Fe (Iron)	Max. 10 ppm
Mn (Manganese)	Max. 20 ppm		

Cat. No.	Pk	Pack type
25164.265	500 g	Plastic bottle for solids

Magnesium sulphate, dried USP

Assay (on anhydrous substance)	99.0 to 100.5 %
Identification A (Mg)	Passes test
Identification A (SO_4)	Passes test
pH (25 °C; 5 %)	5.0 to 9.2
Loss on ignition (450 ± 25 °C)	22.0 to 28.0 %
Cl (Chloride)	Max. 0.014 %
Fe (Iron)	Max. 20 µg/g
Heavy metals (as Pb)	Max. 0.001 %
Se (Selenium)	Max. 0.003 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
7154.1000	1 kg	Plastic bottle for solids

Magnesium sulphate, dried GPR RECTAPUR®

Assay	Min. 98.0 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.05 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
291184P	500 g	Plastic bottle for solids
291186R	2,5 kg	Plastic bottle for solids
29118BW	25 kg	Bucket (Plastic)

Magnesium sulphate TECHNICAL

Assay	Min. 95 %

Cat. No.	Pk	Pack type
25162.361	5 kg	Bucket (Plastic)
25162.465	25 kg	Bucket (Plastic)

Magnesium sulphate hydrate

CAS 22189-08-8

EINECS: 231-298-2

$MgSO_4.nH_2O$

M.W. 138.38 g/mol

Density: 2.45 g/cm³ (20 °C)

Storage Temperature: Ambient temperature

Magnesium sulphate hydrate GPR RECTAPUR®

Assay (on anhydrous substance) ..... 99.0 to 101.0 %
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on ignition (450 ± 25°C) ..... 22.0 to 28.0 %
Cl (Chloride) ..... Max. 0.02 %
As (Arsenic) ..... Max. 5 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
25169.295	1 kg	Plastic bottle for solids

Magnesium sulphate heptahydrate

CAS 10034-99-8

EINECS: 231-298-2

$MgSO_4.7H_2O$

M.W. 246.48 g/mol

Density: 2.66 g/cm³ (20 °C)

Melting Pt: 1124 °C

Storage Temperature: Ambient temperature

Magnesium sulphate heptahydrate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Acidity or alkalinity ..... Max. 0.001 meq/g
Alkaline metals (as SO_4) ..... Max. 0.05 %
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
NO_3 (Nitrate) ..... Max. 10 ppm
As (Arsenic) ..... Max. 2 ppm
Cu (Copper) ..... Max. 2 ppm
K (Potassium) ..... Max. 10 ppm
Na (Sodium) ..... Max. 10 ppm
Conforms to BDH 10151 ..... Passes test
Solution in water ..... Passes test
pH (25°C; 5 %) ..... 5.0 to 8.0
Heavy metals (as Pb) ..... Max. 5 ppm
Total N (Nitrogen) ..... Max. 20 ppm
NH_4 (Ammonium) ..... Max. 20 ppm
PO_4 (Phosphate) ..... Max. 10 ppm
Ca (Calcium) ..... Max. 50 ppm
Fe (Iron) ..... Max. 1 ppm
Mn (Manganese) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
25165.260	500 g	Plastic bottle for solids
25165.292	1 kg	Plastic bottle for solids
25165.361	5 kg	Plastic bottle for solids

Magnesium sulphate heptahydrate Ph. Eur.

Assay (calculated on dried substance) ..... 99.0 to 100.5 %
Appearance ..... Colourless crystals
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Cl (Chloride) ..... Max. 300 ppm
As (Arsenic) ..... Max. 2 ppm
Fe (Iron) ..... Max. 20 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (110-120°C) ..... 48.0 to 52.0 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
25167.298	1 kg	Plastic bottle for solids
25167.367	5 kg	Plastic bottle for solids
25167.460	25 kg	Bucket (Plastic)

Magnesium sulphate heptahydrate, purified

Assay ..... Min. 98 %
Insoluble matter ..... Max. 0.05 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
25163.290	1 kg	Plastic bottle for solids
25163.364	5 kg	Bucket (Plastic)

Magnesium sulphate heptahydrate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
437042Y	100 g	Plastic bottle
437044K	500 g	Plastic bottle

Magnesium sulphate (1 - 2.5 mol/l) in aqueous solution

CAS 7487-88-9

EINECS: 231-298-2

$MgSO_4$

M.W. 120.37 g/mol

Storage Temperature: Ambient temperature

Magnesium sulphate 1 mol/l in aqueous solution for biotechnology, sterile

Conductivity (10%, Water) ..... 9000 - 11000 umhos
Sterility ..... PASS

Cat. No.	Pk	Pack type
E541-100ML	100 ml	Plastic bottle

Malachite green solution

NEW Malachite green solution Reag. Ph. Eur. 1050501

Cat. No.	Pk	Pack type
87863.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Malachite green oxalate

Danger
H361d H302 H318 H410
P201 P281 P273 P305+P351+P338 P309+P310

CAS 2437-29-8

Index 602-096-00-5

EINECS: 219-441-7

UN: 2811

ADR 6.1,III

$C_{52}H_{54}N_4O_{12}$

M.W. 748.97 g/mol

Melting Pt: ~ 159 °C

Storage Temperature: Ambient temperature

Malachite green oxalate for microscopy

Identification ..... Passes test

Cat. No.	Pk	Pack type
3076.0025	25 g	Glass bottle
3076.0100	100 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Malate dehydrogenase (MDH)

CAS 9001-64-3

EINECS: 232-622-5

VWR CHEMICALS Malate dehydrogenase (MDH)

Activity ..... ≥ 12000 u/ml
Alanine Aminotransferase ..... ≤ 0.005 %
Aspartate Aminotransferase ..... ≤ 0.005 %
Lactate Dehydrogenase ..... ≤ 0.005 %
Specific Activity ..... ≥ 1200 U/mg

Cat. No.	Pk	Pack type
0373-25000U	25 KU	Glass bottle

Malathion (1,2-Bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate) (100 - < 1,000 µg/ml) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 121-75-5
EINECS: 204-497-7
UN: 1230
ADR 3,II

$C_{10}H_{19}O_6PS_2$
Storage Temperature: Ambient temperature

NEW Malathion (1,2-Bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate) 100 µg/ml in methanol

Cat. No.	Pk	Pack type
124312W	1 ml	Glass ampoule

Maleic anhydride

2,5-Furanedione

Danger
H302 H314 H334 H317
P280 P285 P301+P330+P331 P302+P352 P304+P341
P309+P310

CAS 108-31-6
Index 607-096-00-9
EINECS: 203-571-6
UN: 2215
ADR 8,III
Flash Pt: 103 °C

$C_4H_2O_3$
M.W. 98.06 g/mol
Density: 1.48 g/cm³ (20 °C)
Boiling Pt: 200 °C (1013 hPa)
Melting Pt: 51 to 53 °C
Storage Temperature: Ambient temperature

Maleic anhydride TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
21409.298	1 kg	Plastic bottle for solids

(±)-Malic acid

(±)-Hydroxy-1,4-butanedioic acid ,
(±)-Hydroxysuccinic acid

Danger
H302 H335 H315 H318
P280 P305+P351+P338

CAS 617-48-1
EINECS: 210-514-9

$HOOCCH(OH)CH_2COOH$
M.W. 134.09 g/mol
Density: 1.601 g/cm³ (20 °C)
Boiling Pt: 306 °C (1013 hPa)
Melting Pt: 131 to 132 °C
Storage Temperature: Ambient temperature

(±)-Malic acid TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20365.290	1 kg	Plastic bottle for solids

Malt Extract Agar

See Microbiology

D(+)-Maltose monohydrate

CAS 6363-53-7
EINECS: 200-716-5

$C_{12}H_{22}O_{11}.1H_2O$
M.W. 360.32 g/mol
Melting Pt: 160 to 165 °C
Storage Temperature: Ambient temperature

D(+)-Maltose monohydrate GPR RECTAPUR®

pH (20°C; 5 %) ..... 4.5 to 6.0
Spec.opt.rot.(10 %;water)(on anhydrous) ..... 135 to 139 °
Heavy metals (as Pb) ..... Max. 20 ppm
Ignition residue (SO_4) ..... Max. 0.1 %
Water ..... 4.0 to 7.0 %

Cat. No.	Pk	Pack type
25188.187	100 g	Plastic bottle for solids
25188.291	1 kg	Plastic bottle for solids
25188.360	5 kg	Bucket (Plastic)

VWR CHEMICALS D(+)-Maltose monohydrate, reagent grade

Common media additive, particularly for the cultivation of lambda phage.

Loss on Drying ..... 7 %
Purity ..... 85 %
Residue after Ignition ..... 0.1 %
Specific Rotation (4%, Water) ..... REPORT

Cat. No.	Pk	Pack type
1B1184-100G	100 g	Plastic bottle for solids
1B1184-500G	500 g	Plastic bottle for solids
1B1184-1KG	1 kg	Plastic bottle for solids

Manganese (reagents for the analysis of)

o-Acetylsalicylic acid GPR RECTAPUR® p.11

Manganese standard solution, 10,000 mg/l Mn in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-96-5
EINECS: 231-105-1
UN: 3264
ADR 8,III

Mn
M.W. 54.94 g/mol
Storage Temperature: Ambient temperature

Manganese standard solution, 10,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP

$Mn(C_2H_3O_2)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455652H	100 ml	Plastic bottle
455654J	500 ml	Plastic bottle

Supplied with certificate of analysis.

Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-96-5
EINECS: 231-105-1
UN: 3264
ADR 8,III

Mn
M.W. 54.94 g/mol
Storage Temperature: Ambient temperature

Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP

$Mn(C_2H_3O_2)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455642F	100 ml	Plastic bottle
455644H	500 ml	Plastic bottle

Supplied with certificate of analysis.

Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid (from Mn) ARISTAR® standard for ICP-MS

Mn in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456802H	100 ml	Plastic bottle

Supplied with certificate of analysis.

Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86691.180	100 ml	Plastic bottle
86691.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Manganese (II) chloride tetrahydrate

Manganese dichloride tetrahydrate , Manganous chloride tetrahydrate

Warning
H302 H411
P273 P301+P312

CAS 13446-34-9
EINECS: 231-869-6
UN: 3077
ADR 9,III

$MnCl_2 \cdot 4H_2O$
M.W. 197.91 g/mol
Density: 2.01 g/cm³ (20 °C)
Boiling Pt: 1190 °C (1013 hPa)
Melting Pt: 58 to 59 °C
Storage Temperature: Ambient temperature

Manganese (II) chloride tetrahydrate AnalaR NORMAPUR® ACS analytical reagent

Assay	Min. 99.0 %	Ba (Barium)	Passes test
Insolubility in water	Max. 50 ppm	Not precipitated by $(NH_4)_2S$ (as SO_4)	Max. 0.2 %
Reducing substances (as O)	Max. 5 ppm	NH_4 (Ammonium)	Max. 20 ppm
SO_4 (Sulphate)	Max. 50 ppm	As (Arsenic)	Max. 2 ppm
Ca (Calcium)	Max. 100 ppm	Co (Cobalt)	Max. 10 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 5 ppm
Ni (Nickel)	Max. 10 ppm	Pb (Lead)	Max. 5 ppm
Zn (Zinc)	Max. 5 ppm		

Cat. No.	Pk	Pack type
25222.233	250 g	Plastic bottle for solids
25222.290	1 kg	Plastic bottle for solids

Manganese (II) sulphate monohydrate

Manganese sulphate monohydrate , Manganous sulphate monohydrate

Warning
H373 H411
P260 P273 P314

CAS 10034-96-5
Index 025-003-00-4
EINECS: 232-089-9
UN: 3077
ADR 9,III

$MnSO_4 \cdot 1H_2O$
M.W. 169.02 g/mol
Density: 2.95 g/cm³ (25 °C)
Melting Pt: 700 °C
Storage Temperature: 2 - 8°C

Manganese (II) sulphate monohydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.0 to 101.0 %	Insolubility in water	Max. 100 ppm
Loss on ignition (500°C)	10.0 to 12.0 %	Substances reducing $KMnO_4$	Passes test
Cl (Chloride)	Max. 10 ppm	Ca (Calcium)	Max. 50 ppm
Heavy metals (as Pb)	Max. 10 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 10 ppm	K (Potassium)	Max. 50 ppm
Mg (Magnesium)	Max. 50 ppm	Na (Sodium)	Max. 50 ppm
Ni (Nickel)	Max. 5 ppm	Pb (Lead)	Max. 10 ppm
Zn (Zinc)	Max. 50 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
25303.233	250 g	Plastic bottle for solids
25303.290	1 kg	Plastic bottle for solids

Manganese (II) sulphate monohydrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 50 ppm
Not precipitated by $(NH_4)_2S$ (as SO_4)	Max. 0.5 %
Cl (Chloride)	Max. 50 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
25300.290	1 kg	Plastic bottle for solids
25300.368	5 kg	Bucket (Plastic)

Manganous chloride tetrahydrate

See Manganese (II) chloride tetrahydrate p.278

Manganous sulphate monohydrate

See Manganese (II) sulphate monohydrate p.278

D(-)-Mannitol

CAS 69-65-8

EINECS: 200-711-8

$HOH_2C(CH(OH))_4CH_2OH$

M.W. 182.17 g/mol
Density: 1.49 g/cm³ (20 °C)
Boiling Pt: 290 to 295 °C (4 hPa)
Melting Pt: 164 to 169 °C
Storage Temperature: Ambient temperature

D(-)-Mannitol analytical reagent

Reducing sugars	Passes test
Acidity or alkalinity	Passes test
Melting point	164 to 169 °C
Specific optical rotation (8 %; borate)	23 to 24 °
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.05 %
Loss on drying (100°C)	Max. 0.3 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 2 ppm

Cat. No.	Pk	Pack type
25314.264	500 g	Plastic bottle for solids

D(-)-Mannitol Ph. Eur.

Assay (calculated on anhydrous)	98.0 to 102.0 %
Appearance	White crystalline powder
Identification C	Passes test
Appearance of solution	Passes test
Conductivity (25°C; 20 %)	Max. 20 µS/cm
Reducing sugars (calculated as $C_6H_{12}O_6$)	Max. 0.2 %
Related substances	Passes test
Pb (Lead)	Max. 0.5 ppm
Ni (Nickel)	Max. 1 ppm
Water	Max. 0.5 %
Microbial contamination	Passes test
Residual solvents	Passes test

Cat. No.	Pk	Pack type
25311.297	1 kg	Plastic bottle for solids
25311.366	5 kg	Bucket (Plastic)
25311.468	25 kg	Bucket (Plastic)

D(-)-Mannitol GPR RECTAPUR®

Melting point	164 to 169 °C
Specific optical rotation (8 %; borate)	23.0 to 24.5 °
Ignition residue (SO_4)	Max. 0.2 %
Loss on drying (100°C)	Max. 0.5 %
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %

Cat. No.	Pk	Pack type
25313.294	1 kg	Plastic bottle for solids
25313.363	5 kg	Bucket (Plastic)

VWR CHEMICALS D(-)-Mannitol USP

Acidity	PASS
Arsenic	1 ppm
Chloride	0.007 %
Identification	PASS
Loss on Drying	0.3 %
Melting Range	164 - 169 °C
Purity	96.0 - 101.5 %
Reducing Sugars	PASS
Specific Rotation (1%, Water)	+137 - +145 °
Sulphate	0.01 %

Cat. No.	Pk	Pack type
0122-500G	500 g	Plastic bottle for solids
0122-1KG	1 kg	Plastic bottle for solids
0122-5KG	5 kg	Bucket (Plastic)

Product is Tested to USP Specifications

Mannitol Salt Agar

See Microbiology

D(+)-Mannose

CAS 3458-28-4

EINECS: 222-392-4

$C_6H_{12}O_6$

M.W. 180.16 g/mol
Density: 1.539 g/cm³ (20 °C)
Boiling Pt: 376 °C (1013 hPa)
Melting Pt: 133 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS D(+)-Mannose, high purity

Loss on Drying	1.0 %
Melting Point	125 - 131 °C
Purity (HPLC)	99.5 %
Solubility (5%, Water)	PASS
Specific Rotation	+14.0 to +15.0 °

Cat. No.	Pk	Pack type
J443-25G	25 g	Plastic bottle for solids
J443-100G	100 g	Plastic bottle for solids
J443-500G	500 g	Plastic bottle for solids

Marble

See Calcium carbonate p.91

MasterMixes

see PCR

May Grunwald Eosin methylene blue

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

NEW May Grunwald Eosin methylene blue Q PATH®

Ready to use May & Grunwald for cytological staining in safe and easy to use pouch.

IVD

Cat. No.	Pk	Pack type
10047018.	6 x 450 ml	Pouch
10047118.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

May Grunwald's eosin methylene blue solution

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

May Grunwald's eosin methylene blue solution for microscopical staining

A specially modified May-Grunwald stain solution which can be used in conjunction with Giemsa R66, or as an independent stain.
This stain gives a more intense picture to the traditional May-Grunwald stains.

IVD

Absorption maximum λ 1	645 to 651 nm
Absorption maximum λ 2	520 to 528 nm
Absorbance A1,λ1 (λmax; diluted 1:250; 1 cm)	0.500 to 0.800
Absorbance A2,λ2 (λmax; diluted 1:250; 1 cm)	0.300 to 0.400
Suitability for microscopy (Blood smear)	Passes test
Erythrocytes	Pink to brownish
Nuclei	Violet
Eosinophilic granules	Red to red-brown
Neutrophilic granules	Light violet
Lymphocyte cytoplasm	Blue

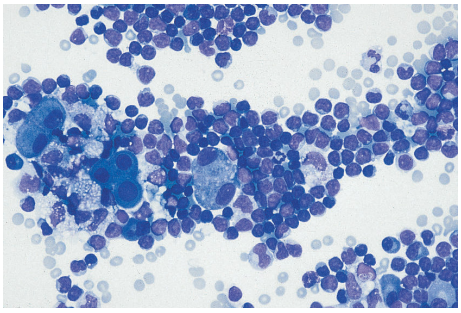
Cat. No.	Pk	Pack type
352065W	1 l	Glass bottle

Technical data sheet and instructions available on vwr.com

May Grunwald's eosin methylene blue solution modified

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Density: 0.79 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

May Grunwald's eosin methylene blue solution modified for microscopical staining



(Formulation Raymond A. Lamb)

IVD

Absorption maximum λ 1	652 to 653 nm
Absorption maximum λ 2	521 to 523 nm
Absorbance A1,λ1 (λmax; diluted 1:400; 1 cm)	0.850 to 1.100
Absorbance A2,λ2 (λmax; diluted 1:400; 1 cm)	0.450 to 0.800
Suitability for microscopy (Blood smear)	Passes test

Cat. No.	Pk	Pack type
351355C	1 l	Glass bottle

Technical data sheet and instructions available on vwr.com

May Grunwald's eosin methylene blue solution modified for microscopical staining

IVD

Absorption maximum λ 1	645 to 651 nm
Absorption maximum λ 2	520 to 528 nm
Absorbance A1,λ1 (λmax; diluted 1:250; 1 cm)	0.500 to 0.800
Absorbance A2,λ2 (λmax; diluted 1:250; 1 cm)	0.300 to 0.400
Suitability for microscopy (Blood smear)	Passes test
Erythrocytes	Pink to brownish
Nuclei	Violet
Eosinophilic granules	Red to red-brown
Neutrophilic granules	Light violet
Lymphocyte cytoplasm	Blue

Cat. No.	Pk	Pack type
352625P	500 ml	Glass bottle
352622M	1 l	Glass bottle

Technical data sheet and instructions available on vwr.com

Media Fill Test (Microbiology)

See Microbiology

MEGA-8 (N-Methyl-N-octanoyl-D-glucamine)

CAS 85316-98-9

$C_{15}H_{31}NO_6$
Storage Temperature: Ambient temperature

VWR CHEMICALS MEGA-8 (N-Methyl-N-octanoyl-D-glucamine)

Non ionic detergent.

Conductivity (10 %, Water) @25 °C	60 umhos
Melting Point	REPORT
Solubility (0.1M, Water)	PASS

Cat. No.	Pk	Pack type
J573-5G	5 g	Glass bottle

MEGA-10 (N-Decanoyl-N-methyl-D-glucamine)

CAS 85261-20-7

$C_{17}H_{35}NO_6$
Storage Temperature: 2 - 8°C

MEGA-10 (N-Decanoyl-N-methyl-D-glucamine), ultrapure

Non ionic detergent.

Conductivity (0.3 %, Water) @25 °C ..... 40 umhos
Melting Point ..... REPORT
Solubility (50 mg/ ml, Methanol) ..... PASS

Cat. No.	Pk	Pack type
J568-5G	5 g	Glass bottle

MEK

See Methyl ethyl ketone p.290

Mercaptoacetic acid (Thioglycolic acid)

Mercaptoacetic acid

Danger
H301+H311+H331 H314
P280 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 68-11-1
Index 607-090-00-6
EINECS: 200-677-4
UN: 1940
ADR 8,II
Flash Pt: 130 °C (closed cup)

$HSCH_2COOH$
M.W. 92.12 g/mol
Density: 1.33 g/cm³ (20 °C)
Boiling Pt: 96 °C (1013 hPa)
Melting Pt: -16.5 °C
Storage Temperature: 2 - 8°C

Mercaptoacetic acid (Thioglycolic acid) GPR RECTAPUR®

Assay ..... Min. 98 %
Ignition residue (SO_4) ..... Max. 0.1 %
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
20495.265	500 ml	Glass bottle

WARNING : The indicated concentration refers to the product leaving the factory. A continuous loss of strength, specific to the product, is predictable.

2-Mercaptoethanol

2-Hydroxyethyl mercaptan , β-Mercaptoethanol

Danger
H310+H330 H301 H315 H318 H410
P280 P284 P273 P302+P350 P304+P340
P305+P351+P338 P309+P310

CAS 60-24-2
EINECS: 200-464-6
UN: 2966
ADR 6.1,II
Flash Pt: 68 °C

$HSCH_2CH_2OH$
M.W. 78.14 g/mol
Density: 1.12 g/cm³ (20 °C)
Boiling Pt: 157 °C (1013 hPa)
Melting Pt: -100 °C
Storage Temperature: Ambient temperature

2-Mercaptoethanol Electran® Molecular biology grade

Assay ..... Min. 99 %
Identity (IR) ..... Passes test
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Density (20/4) ..... 1.114 to 1.116
Heavy metals (as Pb) ..... Max. 0.0001 %
Water ..... Max. 0.5 %
Absorptivity (0.5 mol/l; 1 cm; 260 nm) ..... Max. 1.50
Absorptivity (0.5 mol/l; 1 cm; 280 nm) ..... Max. 0.31

Cat. No.	Pk	Pack type
436022A	50 ml	Glass bottle
436024C	250 ml	Glass bottle

2-Mercaptoethanol for biotechnology

DNase ..... NONE
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Water ..... 0.5 %

Cat. No.	Pk	Pack type
0482-100ML	100 ml	Glass bottle
0482-250ML	250 ml	Glass bottle

2-Mercaptoethanol, proteomics grade

DNase ..... NONE
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Water ..... 0.5 %

Cat. No.	Pk	Pack type
M131-100ML	100 ml	Glass bottle
M131-250ML	250 ml	Glass bottle

2-Mercaptoethanol

Identity ..... Passes test (IR)
Assay (by GC) ..... Min 98 %

Cat. No.	Pk	Pack type
441435C	500 ml	Glass bottle

β-Mercaptoethanol

See 2-Mercaptoethanol p.281

Mercuric acetate

See Mercury (II) acetate p.283

Mercuric acetate solution

Danger
H310 H301 H332 H411
P280 P273 P302+P350 P304+P340 P309+P310

NEW

Mercuric acetate solution Reag. Ph. Eur. 1052001

Cat. No.	Pk	Pack type
87864.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Mercuric bromide paper

UN: 2025
ADR 6.1,III

Mercuric bromide paper Reag. Ph. Eur. 1052101 for the determination of arsenic

Cat. No.	Pk	Pack type
85875.150	50	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Mercuric chloride solution

Danger
H341 H361f H301 H373 H314 H411
P201 P281 P301+P330+P331 P304+P340 P309+P310

NEW Mercuric chloride solution Reag. Ph. Eur. 1052201

Cat. No.	Pk	Pack type
87865.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Mercuric chloride

See Mercury (II) chloride p.283

Mercuric iodide

See Mercury (II) iodide p.283

Mercuric sulphate

See Mercury (II) sulphate p.284

Mercury (reagents for the analysis of)

Chromotropic acid disodium salt dihydrate analytical reagent p.112
1,5-Diphenylcarbazide analytical reagent..... p.154
Dithizone analytical reagent..... p.156

Mercury standard solution, 10,000 mg/l Hg in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-97-6
EINECS: 231-106-7
UN: 3264
ADR 8,III

Hg
M.W. 200.59 g/mol
Storage Temperature: Ambient temperature

Mercury standard solution, 10,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP

Hg in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455672L	100 ml	Plastic bottle
455674N	500 ml	Plastic bottle

Supplied with certificate of analysis.

Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7439-97-6
EINECS: 231-106-7
UN: 3264
ADR 8,III

Hg
M.W. 200.59 g/mol
Density: 1.054 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP-MS

Hg in 2% HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456812J	100 ml	Plastic bottle

Supplied with certificate of analysis.

Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP

Hg in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455662J	100 ml	Plastic bottle
455664L	500 ml	Plastic bottle

Supplied with certificate of analysis.

Mercury standard solution, 1,000 mg/l Hg in 10% nitric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7439-97-6
EINECS: 231-106-7
UN: 3264
ADR 8,III

Hg
M.W. 200.59 g/mol
Density: 1.054 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Mercury standard solution, 1,000 mg/l Hg in 10% nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86682.180	100 ml	Plastic bottle
86682.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Mercury (II) acetate

Acetic acid mercury (II) salt , Mercuric acetate , Mercury diacetate

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 1600-27-7
Index 080-004-00-7
EINECS: 216-491-1
UN: 1629
ADR 6.1,II

$(H_3CCOO)_2Hg$
M.W. 318.68 g/mol
Density: 3.27 g/cm³ (20 °C)
Melting Pt: 178 to 180 °C
Storage Temperature: Ambient temperature

Mercury (II) acetate AnalaR NORMAPUR® analytical reagent

Assay	Min. 98.0 %	Insolubility in diluted acetic acid	Max. 100 ppm
Other heavy metals (as Pb)	Max. 20 ppm	Residue after reduction	Max. 0.02 %
Total N (Nitrogen)	Max. 50 ppm	Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm	Fe (Iron)	Max. 10 ppm
Hg (I) (Mercury)	Max. 0.3 %		

Cat. No.	Pk	Pack type
25364.186	100 g	Plastic bottle for solids

Mercury (II) chloride

Mercuric chloride , Mercury dichloride

Danger
H341 H361f H300 H372 H314 H410
P201 P281 P273 P301+P330+P331 P304+P340
P309+P310

CAS 7487-94-7
Index 080-010-00-X
EINECS: 231-299-8
UN: 1624
ADR 6.1,II

$HgCl_2$
M.W. 271.5 g/mol
Density: 5.44 g/cm³ (20 °C)
Boiling Pt: 302 °C (1013 hPa)
Melting Pt: 273 °C
Storage Temperature: Ambient temperature

Mercury (II) chloride AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Mercury (I) chloride	Passes test
Solubility in ether	Passes test	Ignition residue (SO_4)	Max. 0.02 %
Total N (Nitrogen)	Max. 20 ppm	SO_4 (Sulphate)	Max. 20 ppm
Fe (Iron)	Max. 20 ppm	Pb (Lead)	Max. 10 ppm

Cat. No.	Pk	Pack type
25384.185	100 g	Plastic bottle for solids
25384.232	250 g	Plastic bottle for solids
25384.298	1 kg	Plastic bottle for solids

Mercury diacetate

See Mercury (II) acetate p.283

Mercury dichloride

See Mercury (II) chloride p.283

Mercury diiodide

See Mercury (II) iodide p.283

Mercury dinitrate monohydrate

See Mercury (II) nitrate monohydrate p.283

Mercury (II) iodide

Mercuric iodide , Mercury diiodide

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 7774-29-0
Index 080-002-00-6
EINECS: 231-873-8
UN: 1638
ADR 6.1,II

HgI_2
M.W. 454.4 g/mol
Density: 6.36 g/cm³ (20 °C)
Boiling Pt: 354 °C (1013 hPa)
Melting Pt: 259 °C
Storage Temperature: Ambient temperature

Mercury (II) iodide analytical reagent

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue	Max. 0.02 %
Hg (I) (Mercury)	Max. 0.1 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
25401.232	250 g	Plastic bottle for solids

Mercury (II) iodide TECHNICAL

Assay	Min. 99 %

Cat. No.	Pk	Pack type
25402.235	250 g	Plastic bottle for solids

Mercury (II) nitrate monohydrate

Mercury dinitrate monohydrate

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 7783-34-8
Index 080-002-00-6
EINECS: 233-152-3
UN: 1625
ADR 6.1,II

$Hg(NO_3)_2 \cdot 1H_2O$
M.W. 342.62 g/mol
Density: 4.3 g/cm³ (20 °C)
Melting Pt: 79 °C

Mercury (II) nitrate monohydrate GPR RECTAPUR®

Assay	Min. 98 %
Ignition residue (SO_4)	Max. 0.02 %
Cl (Chloride)	Max. 0.05 %
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
25419.233	250 g	Plastic bottle for solids

Mercury (II) nitrate (≥ 50%) in aqueous solution

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 10045-94-0
EINECS: 233-152-3
UN: 3287
ADR 6.1,II

$Hg(NO_3)_2$
M.W. 324.6 g/mol

Mercury (II) nitrate 70% in aqueous solution Reag. Ph. Eur. 1052801

Cat. No.	Pk	Pack type
87867.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Mercury (II) nitrate (0.031 - < 0.077 mol/l) in aqueous solution

Danger
H301+H311+H331 H373 H411
P280 P273 P302+P352 P304+P340 P309+P310

CAS 10045-94-0
EINECS: 233-152-3
UN: 3287
ADR 6.1,II

$Hg(NO_3)_2$
M.W. 324.6 g/mol
Density: 1.025 g/cm³ (25 °C)

Mercury (II) nitrate 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501

Cat. No.	Pk	Pack type
31530.295	1 l	Plastic bottle

Mercury (II) sulphate

Mercuric sulphate , Mercury sulphate

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 7783-35-9
Index 080-002-00-6
EINECS: 231-992-5
UN: 1645
ADR 6.1,II

$HgSO_4$
M.W. 296.65 g/mol
Density: 6.47 g/cm³ (25 °C)
Melting Pt: 850 °C
Storage Temperature: Ambient temperature

Mercury (II) sulphate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 98 %
Residue after reduction ..... Max. 0.1 %
NO_3 (Nitrate) ..... Max. 50 ppm
Hg (I) (Mercury) ..... Max. 0.15 %
Chemical oxygen demand (COD) ..... Passes test
Cl (Chloride) ..... Max. 30 ppm
Fe (Iron) ..... Max. 50 ppm
Conforms to BDH 10368 ..... Passes test

Cat. No.	Pk	Pack type
83565.180	100 g	Plastic bottle for solids
83565.230	250 g	Plastic bottle for solids

Mercury (II) sulphate, purified

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
25445.233	250 g	Plastic bottle for solids

Mercury (II) sulphate in sulphuric acid (15-25%)

CAS 7783-35-9
EINECS: 231-992-5

$HgSO_4$
M.W. 296.65 g/mol

Mercury (II) sulphate 50 g/l in sulphuric acid 24% Reag. Ph. Eur. 1052600

Cat. No.	Pk	Pack type
87866.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Merthiolat

See Thiomersal p.504

MES (β-(N-Morpholino)ethanesulphonic acid)

2-(N-Morpholino)ethanesulphonic acid

CAS 4432-31-9
EINECS: 224-632-3

$C_6H_{13}NO_4S$
M.W. 195.24 g/mol
Melting Pt: 316 °C
Storage Temperature: Ambient temperature

MES (β-(N-Morpholino)ethanesulphonic acid)

Assay ..... Min. 99.5 %
pH (25 °C; 0,5 mol/l) ..... 2.5 to 4.0
Heavy metals (as Pb) ..... Max. 0.001 %
Water ..... Max. 0.5 %
Cl (Chloride) ..... Max. 0.01 %
SO_4 (Sulphate) ..... Max. 0.05 %
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.05
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.02

Cat. No.	Pk	Pack type
441316T	100 g	Plastic bottle

VWR CHEMICALS MES (β-(N-Morpholino)ethanesulphonic acid), high purity

Abs.@290 nm (20 %, Water) (w/w) 0.05
Heavy Metals ..... 10 ppm
pKa (20 °C) ..... 5.9 - 6.3
Purity ..... 99.0 %
Solubility (10%, Water) ..... PASS
Water (KF) ..... 1.0 %

Cat. No.	Pk	Pack type
E183-100G	100 g	Plastic bottle for solids
E183-250G	250 g	Plastic bottle for solids

MES (β-(N-Morpholino)ethanesulphonic acid) monohydrate

2-(N-Morpholino)ethanesulphonic acid monohydrate

CAS 145224-94-8
EINECS: 224-632-3

$C_6H_{13}NO_4S.1H_2O$
M.W. 213.26 g/mol
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

MES (β-(N-Morpholino)ethanesulphonic acid) monohydrate, ultrapure

Abs.@260 nm (1 M, Water) 0.02
Abs.@280 nm (1 M, Water) 0.02
DNase ..... NONE
Identification ..... PASS
Moisture (KF) ..... 10.0 %
pKa @25 °C ..... 5.9 - 6.3
Protease ..... NONE
Purity (Dry Basis,Titration) ..... 99.0 %
RNase ..... NONE
Solubility (1M, Water) ..... PASS

Cat. No.	Pk	Pack type
E169-100G	100 g	Plastic bottle for solids
E169-250G	250 g	Plastic bottle for solids
E169-500G	500 g	Plastic bottle for solids

MES-SDS buffer 20X

MES-SDS buffer 20X, ultrapure

Useful for high resolution of proteins on neutral pH SDS-PAGE gels.

pH (1X, Water) @25°C ..... 7.0 - 7.6

Cat. No.	Pk	Pack type
K856-500ML	500 ml	Plastic bottle

Metaphosphoric acid

See meta-Phosphoric acid p.363

Methanesulphonic acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 75-75-2
Index 607-145-00-4
EINECS: 200-898-6
UN: 2586
ADR 8,III
Flash Pt: 189 °C (closed cup)

CH_3SO_3H
M.W. 96.11 g/mol
Density: 1.48 g/cm³ (20 °C)
Boiling Pt: 217 °C (1013 hPa)
Melting Pt: 20 °C
Storage Temperature: 2 - 8°C

Methanesulphonic acid TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20376.184	100 ml	Glass bottle

Methanoic acid 100%

See Formic acid p.191

Methanol

Hydroxy methane , Wood alcohol , Carbinol , Methyl alcohol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 67-56-1
Index 603-001-00-X
EINECS: 200-659-6
UN: 1230
ADR 3,II
Flash Pt: 11 °C (closed cup)

CH_3OH
M.W. 32.04 g/mol
Density: 0.7918 g/cm³ (20 °C)
Boiling Pt: 64.6 °C (1013 hPa)
Melting Pt: -98 °C
Storage Temperature: Ambient temperature

Methanol ARISTAR® for trace analysis

Identity ..... passes test
Resistivity ..... Min 1 MOhm cm
Water ..... Max 0.05 %
Acidity (as HCOOH) ..... Max 10 ppm
Carbonyl compounds (CH_3COCH_3) ..... Max 10 ppm
Sulphates (SO_4) ..... Max 1 ppm
Ag (Silver) ..... Max 0.01 ppm
As (Arsenic) ..... Max 0.01 ppm
B (Boron) ..... Max 0.01 ppm
Be (Beryllium) ..... Max 0.01 ppm
Ca (Calcium) ..... Max 0.05 ppm
Co (Cobalt) ..... Max 0.005 ppm
Cu (Copper) ..... Max 0.005 ppm
Ga (Gallium) ..... Max 0.01 ppm
K (Potassium) ..... Max 0.02 ppm
Mg (Magnesium) ..... Max 0.01 ppm
Mo (Molybdenum) ..... Max 0.01 ppm
Ni (Nickel) ..... Max 0.005 ppm
Pt (Platinium) ..... Max 0.05 ppm
Sn (Tin) ..... Max 0.02 ppm
Ti (Titanium) ..... Max 0.02 ppm
V (Vanadium) ..... Max 0.01 ppm
Zr (Zirconium) ..... Max 0.02 ppm

Assay (by GC) ..... Min 99.9 %
Organic impurities ..... passes test
Non-volatile matter ..... Max 1 ppm
Free alkalinity (as NH_3) ..... Max 1 ppm
Substances reducing permanganate $KMnO_4$ (O) Max 2.5 ppm
Chloride (Cl) ..... Max 0.5 ppm
Al (Aluminium) ..... Max 0.05 ppm
Au (Gold) ..... Max 0.02 ppm
Ba (Barium) ..... Max 0.02 ppm
Bi (Bismuth) ..... Max 0.02 ppm
Cd (Cadmium) ..... Max 0.005 ppm
Cr (Chromium) ..... Max 0.01 ppm
Fe (Iron) ..... Max 0.05 ppm
In (Indium) ..... Max 0.01 ppm
Li (Lithium) ..... Max 0.01 ppm
Mn (Manganese) ..... Max 0.005 ppm
Na (Sodium) ..... Max 0.1 ppm
Pb (Lead) ..... Max 0.005 ppm
Sb (Antimony) ..... Max 0.01 ppm
Sr (Strontium) ..... Max 0.01 ppm
Tl (Thallium) ..... Max 0.01 ppm
Zn (Zinc) ..... Max 0.02 ppm

Cat. No.	Pk	Pack type
451027S	2,5 l	Glass bottle SAFEBREAK

Methanol HiPerSolv CHROMANORM® for LC-MS

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.9 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue (100°C) ..... Max. 0.0005 %
Water ..... Max. 0.05 %
Ca (Calcium) ..... Max. 0.1 ppm
K (Potassium) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Na (Sodium) ..... Max. 0.1 ppm
Transmittance (210 nm) ..... Min. 65 %
Transmittance (220 nm) ..... Min. 75 %
Transmittance (230 nm) ..... Min. 90 %
Transmittance (240 nm) ..... Min. 98 %
Transmittance (250 nm) ..... Min. 99 %
Gradient grade (235 nm) ..... Max. 2 mAU
Pesticide analysis (Ethylparathion/PND) ..... Max. 10 ng/l
Pesticide analysis (Lindane/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83638.290	1 l	Glass bottle
83638.320	2,5 l	Glass bottle

Methanol HiPerSolv CHROMANORM® Reag. Ph. Eur., gradient grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Acidity	Max. 0.0003 meq/g
Alkalinity	Max. 0.0002 meq/g
Boiling point	64 to 65 °C
Density (20/20)	0.791 to 0.793
Evaporation residue	Max. 5 ppm
Water	Max. 0.03 %
Transmittance (210 nm)	Min. 20 %
Transmittance (220 nm)	Min. 50 %
Transmittance (225 nm)	Min. 68 %
Transmittance (235 nm)	Min. 80 %
Transmittance (250 nm)	Min. 95 %
Transmittance (260 nm)	Min. 98 %
Fluorescence (as quinine) (254 nm)	Max. 1 ppb
Conforms to reagent Ph.Eur. R 1053200	Passes test
Conforms to reagent Ph.Eur. R1 1053201	Passes test
Conforms to reagent Ph.Eur. R2 1053202	Passes test

Cat. No.	Pk	Pack type
20864.290	1 l	Glass bottle
20864.320	2,5 l	Glass bottle
20864.420	2,5 l	Glass bottle SAFEBREAK
20864.400	4 l	Glass bottle
20864.360	5 l	Aluminium bottle

Methanol HiPerSolv CHROMANORM®, isocratic grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.05 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0003 meq/g
Transmittance (220 nm)	Min. 45 %
Transmittance (240 nm)	Min. 75 %
Transmittance (260 nm)	Min. 96 %

Cat. No.	Pk	Pack type
20837.320	2,5 l	Glass bottle
20837.360	5 l	Plastic container

Methanol HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99.8 %
Acidity	Max. 0.00007 meq/g
Alkalinity	Max. 0.0001 meq/g
Density (20/4)	0.79 to 0.792
Non-volatile residue	Max. 5 ppm
Water	Max. 0.05 %
Transmittance (210 nm)	Min. 55 %
Transmittance (220 nm)	Min. 80 %
Transmittance (230 nm)	Min. 90 %
Transmittance (235 nm)	Min. 92 %
Transmittance (240 nm)	Min. 95 %
Transmittance (250 nm)	Min. 98 %
Transmittance (260 nm)	Min. 98 %

Cat. No.	Pk	Pack type
152506X	2,5 l	Glass bottle

NEW Methanol HiPerSolv CHROMANORM® for preparative HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99,9 %
Acidity	Max. 0,0005 meq/g
Evaporation residue	Max. 0,0005 %
Water	Max. 0,05 %

Cat. No.	Pk	Pack type
84529.460	25 l	Metal drum
84529.550	200 l	Metal drum

NEW Methanol SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.05 %
Transmittance (210 nm)	Min. 30 %
Transmittance (220 nm)	Min. 55 %
Transmittance (230 nm)	Min. 75 %
Transmittance (240 nm)	Min. 90 %
Transmittance (250 nm)	Min. 95 %
Transmittance (260 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84705.290	1 l	Glass bottle
84705.320	2,5 l	Glass bottle

Methanol, anhydrous (max. 0.002% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0003 %
Water (K.F.)	Max. 0.002 %

Cat. No.	Pk	Pack type
83679.230	250 ml	Glass bottle
83679.260	500 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Methanol PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Water	Max. 0.1 %
Evaporation residue (100°C)	Max. 0.0005 %
Organic residue (as Octanol) (GC/FID)	Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83966.320	2,5 l	Glass bottle

Methanol PESTINORM® for purge and trap GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Water	Max. 0.1 %
Evaporation residue (100°C)	Max. 0.0005 %
2-Butanone (GC/MS)	Max. 0.5 ppm
Volatile impurities (GC/MS)	Passes test

Cat. No.	Pk	Pack type
83967.290	1 l	Glass bottle
83967.320	2,5 l	Glass bottle

Methanol PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.7 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.1 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83662.290	1 l	Glass bottle
83662.320	2,5 l	Glass bottle

NEW Methanol for peptide synthesis

Assay (calculated on anhydrous)	Min. 99.9 %
Appearance	Clear colourless liquid
Acidity	Max. 0.003 %
Aldehydes	Max. 0.001 %
Colour value	Max. 5 APHA
Free amines	Max. 0.001 %
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.01 %
Cl (Chloride)	Max. 0.0001 %
SO_4 (Sulphate)	Max. 0.0001 %
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
84573.320	2,5 l	Glass bottle

Methanol AnalaR NORMAPUR® Reag. Ph. Eur., ACS analytical reagent

Appearance	Clear colourless liquid	Assay (on anhydrous substance)	Min. 99.8 %
IR Spectrum	Passes test	Acidity	Max. 0.0002 meq/g
Alkalinity	Max. 0.00006 meq/g	Colouration	Max. 10 APHA
Density (20/4)	0.791 to 0.792	Density (20/20)	0.791 to 0.793
Distillation range	64.0 to 65.0 °C	Substances discoloured by H_2SO_4	Max. 10 APHA
Acetone + aldehydes (as CH_3COCH_3)	Max. 10 ppm	Ethanol	Max. 0.1 %
Evaporation residue	Max. 10 ppm	Formaldehyde	Max. 1 ppm
Substances reducing $KMnO_4$ (as O)	Max. 2 ppm	Water	Max. 0.05 %
Cl (Chloride)	Max. 0.5 ppm	Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.05 ppm	Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm	Na (Sodium)	Max. 0.7 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm	Absorbance (225 nm)	Max. 0.17
Transmittance (210 nm)	Min. 20 %	Transmittance (220 nm)	Min. 50 %
Transmittance (230 nm)	Min. 75 %	Transmittance (250 nm)	Min. 95 %
Transmittance (from 260 nm)	Min. 98 %	Conforms to BDH 10158	Passes test

Cat. No.	Pk	Pack type
20847.240	1 l	Glass bottle SAFEBREAK
20847.295	1 l	Glass bottle
20847.307	2,5 l	Plastic bottle
20847.320	2,5 l	Glass bottle
20847.422	2,5 l	Glass bottle SAFEBREAK
20847.360	5 l	Plastic bottle
20847.466	25 l	Metal drum
20847.557	200 l	Metal drum with liner

Methanol, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Colour value	Max. 10 APHA
Assay (calculated on anhydrous)	Min. 99.8 %	Acidity (as HCOOH)	Max. 0.001 %
Alkalinity (as NH_3)	Max. 0.0001 %	Acetone + aldehydes (as CH_3COCH_3)	Max. 0.001 %
Formaldehyde	Max. 0.0001 %	Residue on evaporation	Max. 0.001 %
Reducing substances	Max. 0.0002 %	Water (K.F.)	Max. 0.005 %
Substances discoloured by H_2SO_4	Max. 20 APHA	Ethanol	Max. 0.1 %
Cl (Chloride)	Max. 0.5 ppm	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.5 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
20856.296	1 l	Glass bottle

Methanol GPR RECTAPUR®

Assay	Min. 99.5 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test
Acidity	Max. 0.0002 meq/g
Colouration	Max. 10 APHA
Distillation range	64 to 65 °C
Acetone	Max. 10 ppm
Evaporation residue	Max. 50 ppm
Water	Max. 0.2 %
Conforms to BDH 29192	Passes test

Cat. No.	Pk	Pack type
20846.292	1 l	Plastic bottle
20846.326	2,5 l	Plastic bottle
20846.361	5 l	Plastic bottle
20846.463	25 l	Metal drum
20846.554	200 l	Metal drum

Methanol TECHNICAL

Assay	Min. 98.5 %
Evaporation residue	Max. 0.015 %

Cat. No.	Pk	Pack type
20903.290	1 l	Plastic bottle
20903.368	5 l	Plastic bottle
20903.415	10 l	Plastic drum
20903.461	25 l	Plastic drum
20903.550	200 l	Metal drum

Methanol, special quality for use in preparing solutions of Leishman's, Jenner's, Giemsa's and other stains

Assay (GLC)	Min 99.5 %
Identity	IR spectrum
Refractive index	1.328 to 1.330
Water	Max. 0.1 %
Non-volatile matter	Max. 0.001 %
Acidity	Passes test
Reducing substances	Passes test

Cat. No.	Pk	Pack type
360486N	2,5 l	Glass bottle

Methanol-[D4]

Carbinol-D4 , Hydroxy methane-D4 , Methyl alcohol-D4 , Wood alcohol-D4 , Methyl-D3 alcohol-D

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 811-98-3
EINECS: 212-378-6
UN: 1230
ADR 3,II
Flash Pt: 11 °C

D_3COD
M.W. 36.01 g/mol
Density: 0.888 g/cm³ (20 °C)
Boiling Pt: 65.3 °C (1013 hPa)
Melting Pt: -99 °C
Storage Temperature: Ambient temperature

Methanol-[D4] (99.80% D) for NMR spectroscopy

Assay (on anhydrous substance)	Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D)	Min. 99.80 %
Water (HDO+D_2O)	Max. 0.03 %

Cat. No.	Pk	Pack type
87157.0010	10 ml	Glass bottle
87157.0025	25 ml	Glass bottle
87157.0100	100 ml	Glass bottle
87157.0006	1 Pack	Glass ampoule
87157.0011	10 ml	Glass bottle with septum cap

1 Pack = 10 x 0,6 ml

Methanol-[D4] (99.8% D) contains 0.03% TMS for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.80 %
Water (HDO+D_2O) ..... Max. 0.03 %

Cat. No.	Pk	Pack type
84116.0010	10 ml	Glass bottle

Methenamine

Hexamethylenetetramine , Hexamine , Urotropine

Warning
H228 H317
P210 P240 P280 P302+P352

CAS 100-97-0
Index 612-101-00-2
EINECS: 202-905-8
UN: 1328
ADR 4.1,III
Flash Pt: 250 °C

$C_6H_{12}N_4$
M.W. 140.19 g/mol
Density: 1.33 g/cm³ (20 °C)
Melting Pt: 280 °C
Storage Temperature: Ambient temperature

Methenamine AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.0 %
Ignition residue (SO_4) ..... Max. 0.05 %
Cl (Chloride) ..... Max. 20 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... Max. 1.0 %
SO_4 (Sulphate) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
24560.260	500 g	Plastic bottle for solids
24560.291	1 kg	Plastic bottle for solids

Methenamine GPR RECTAPUR®

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 50 ppm
Ignition residue (SO_4) ..... Max. 0.2 %
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
24558.293	1 kg	Plastic bottle for solids

Methocel® A4C

See Methyl cellulose, 400 mPa*s p.289

Methotrexate

Danger
H340 H361 H301 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P310

CAS 59-05-2
EINECS: 200-413-8
UN: 2811
ADR 6.1,III

$C_{20}H_{22}N_8O_5$
Storage Temperature: -20°C

Methotrexate USP

Chromatographic Purity ..... PASS
Identification ..... PASS
Moisture (by Karl Fischer) ..... 12.0 %
Purity ..... 98.0 - 102.0 %
Residue after Ignition ..... 0.1 %
Specific Rotation ..... +19 to +24 °

Cat. No.	Pk	Pack type
0954-100MG	100 mg	Glass bottle

Product is Tested to USP Specifications

(±)-1-Methoxy-2-propanol

(±)-Monopropylene glycol methyl ether

Danger
H226 H336
P210 P243 P280 P304+P340 P312

CAS 107-98-2
Index 603-064-00-3
EINECS: 203-539-1
UN: 3092
ADR 3,III
Flash Pt: 31 °C

$CH_3CH(OH)CH_2OCH_3$
M.W. 90.12 g/mol
Density: 0.92 g/cm³ (20 °C)
Boiling Pt: 119.6 °C (1013 hPa)
Melting Pt: -97 °C
Storage Temperature: Ambient temperature

(±)-1-Methoxy-2-propanol GPR RECTAPUR®

Assay ..... Min. 98 %
Acidity ..... Max. 0.0003 meq/g
Water ..... Max. 0.1 %

Cat. No.	Pk	Pack type
23829.293	1 l	Glass bottle
23829.320	2,5 l	Glass bottle

2-Methoxy-2-methylpropane

See tert-Butyl methyl ether p.88

Methylal

See Formaldehyde dimethyl acetal p.190

Methyl alcohol

See Methanol p.285

Methyl-D3 alcohol-D

See Methanol-[D4] p.287

Methyl alcohol-D4

See Methanol-[D4] p.287

Methylated spirit

See Ethanol denatured with methanol p.177

Methylbenzene

See Toluene p.510

Methylbenzene-D8

See Toluene-[D8] p.511

Methyl blue

Acid Blue 93 , Disodium [[4-[bis[4-[(sulphonatophenyl)amino]phenyl] methylene]cyclohexa-2,5-dien-1-ylidene]amino]benzenesulphonate , Water blue 6B

CAS 28983-56-4
EINECS: 249-352-9

$C_{37}H_{27}N_3Na_2O_9S_3$
M.W. 799.83 g/mol
Storage Temperature: Ambient temperature

Methyl blue TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
34015.182	100 g	Glass bottle

Technical data sheet and instructions available on vwr.com

2-Methylbutane

iso-Pentane

Danger
H224 H304 H336 H411
EUH066
P210 P243 P280 P273 P301+P331 P304+P340
P309+P310

CAS 78-78-4
EINECS: 201-142-8
UN: 1265
ADR 3,I
Flash Pt: -51 °C

Not to be used as power or heating fuel.

$CH_3CH_2CH(CH_3)_2$
M.W. 72.15 g/mol
Density: 0.62 g/cm³ (20 °C)
Boiling Pt: 28 °C (1013 hPa)
Melting Pt: -160 °C
Storage Temperature: Ambient temperature

2-Methylbutane AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.0 %
Readily carbonisable substances ..... Passes test
Alkalinity ..... Max. 0.0002 meq/g
Colouration ..... Max. 10 APHA
n-Pentane ..... Max. 1.0 %
Water ..... Max. 0.03 %
Ba (Barium) ..... Max. 0.02 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.2 ppm
Mg (Magnesium) ..... Max. 0.05 ppm
Na (Sodium) ..... Max. 0.5 ppm
Pb (Lead) ..... Max. 0.05 ppm
Zn (Zinc) ..... Max. 0.1 ppm
IR Spectrum ..... Passes test
Acidity ..... Max. 0.0002 meq/g
Bromine value ..... Max. 0.5
Evaporation residue ..... Max. 50 ppm
Sulphur compounds (as S) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 0.1 ppm
Ca (Calcium) ..... Max. 0.1 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
K (Potassium) ..... Max. 0.05 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Sr (Strontium) ..... Max. 0.02 ppm

Cat. No.	Pk	Pack type
103614T	500 ml	Glass bottle
103616V	2,5 l	Glass bottle

2-Methylbutane GPR RECTAPUR®

Assay ..... Min. 99 %
Density (20/4) ..... 0.600 to 0.640
Distillation range ..... 27.0 to 28.5 °C
n 20/D ..... 1.353 to 1.355
Evaporation residue ..... Max. 50 ppm
Conforms to BDH 29452 ..... Passes test

Cat. No.	Pk	Pack type
24872.260	500 ml	Glass bottle
24872.298	1 l	Glass bottle
24872.323	2,5 l	Glass bottle

3-Methyl-1-butanol

See Isoamyl alcohol p.253

Methyl carbinol

See Ethanol absolute p.172

Methyl cellulose, 400 mPa*s

Cellulose methyl ether, 400 mPa*s (2% solution in water) , Methocel® A4C

CAS 9004-67-5
Storage Temperature: Ambient temperature

Methyl cellulose Methocel® A4C

Viscosity ..... 300 to 560 mPa.s
pH (1 %) ..... 5.0 to 8.0
Heavy metals (as Pb) ..... Max. 0.001 %
Loss on drying ..... Max. 5.0 %

Cat. No.	Pk	Pack type
298944N	500 g	Plastic bottle

Methyl cyanide

See Acetonitrile p.8

Methyl cyanide-D3

See Acetonitrile-[D3] p.10

Methylcyclohexane

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 108-87-2
Index 601-018-00-7
EINECS: 203-624-3
UN: 2296
ADR 3,II
Flash Pt: -4 °C

Not to be used as power or heating fuel.

$C_6H_{11}CH_3$
M.W. 98.19 g/mol
Density: 0.7693 g/cm³ (20 °C)
Boiling Pt: 101 °C (1013 hPa)
Melting Pt: -126 °C
Storage Temperature: Ambient temperature

Methylcyclohexane TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
25505.366	5 l	Metal can
25505.468	25 l	Metal drum

Methylene blue

Methylthioninium chloride , 3,7-Bis(dimethylamino)phenothiazin-5-ium chloride

Warning
H302 H319 H335 H315
P261 P305+P351+P338

CAS 61-73-4
EINECS: 200-515-2

$C_{16}H_{18}ClN_3S$
M.W. 319.86 g/mol
Density: 1.757 g/cm³ (22 °C)
Melting Pt: 180 °C
Storage Temperature: Ambient temperature

Methylene blue, tablets for milk analysis

Methylene blue tablets are used for preparing methylene blue solution for the bacteriological examination of tuberculin tested and other graded milks. These BDH Methylene Blue Milk-Testing tablets are guaranteed to possess the essential qualities of complete solubility and uniformity

Cat. No.	Pk	Pack type
330733R	50 Tab.	Aluminium tube

Methylene blue for microscopy

Proportion A635/A662 ..... 0.54 to 0.62

Cat. No.	Pk	Pack type
3470.0025	25 g	Glass bottle
3470.0100	100 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Methylene blue hydrate

Methylthioninium chloride hydrate , 3,7-Bis(dimethylamino)phenothiazin-5-ium chloride hydrate

Warning
H302
P301+P312

CAS 122965-43-9
EINECS: 200-515-2

$C_{16}H_{18}ClN_3S.H_2O$
M.W. 337.87 g/mol

Methylene blue hydrate GURR® for microscopical staining, reagent for molybdate

Dye for staining of blood smears to visualize blood parasites and for bacteriological staining to detect acid-fast microorganisms.

IVD

Dye content (spectrophotometric) ..... Min 82 %
Identity ..... Passes test (UV/Vis)
Suitability for microscopy ..... Passes test
Loss on drying (110°C) ..... 10 to 15 %
Absorption max. Lambda (EtOH 50%) ..... 660 to 665 nm
Absorptivity (A 1%/1cm, Lambda max, 0.0003%, EtOH 50%) ..... 2250 to 2750
TLC test ..... Passes test

Cat. No.	Pk	Pack type
340484B	25 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Methylene blue NZ

3,7-Bis(dimethylamino)phenothiazin-5-ium chloride zinc chloride double salt , Methylene blue zinc chloride double salt , Methylthioninium chloride zinc chloride double salt

Warning
H302
P301+P312

CAS 6372-69-6
EINECS: 228-905-8

$C_{32}H_{36}Cl_4N_6S_2Zn$
M.W. 776.01 g/mol

Methylene blue NZ TECHNICAL, extra

Identification ..... Passes test

Cat. No.	Pk	Pack type
34560.265	500 g	Glass bottle for solids

Methylene blue solution

NEW

Methylene blue solution

Cat. No.	Pk	Pack type
911490ZA	1 l	Plastic bottle

Methylene blue zinc chloride double salt

See Methylene blue NZ p.290

Methylene chloride-D2

See Dichloromethane-[D2] p.143

N,N'-Methylenediacrylamide

See Bisacrylamide p.66

Methylene iodide

See Diiodomethane p.147

(±)-Methyl ethyl carbinol

See (±)-2-Butanol p.87

Methyl ethyl ketone

2-Butanone , Ethyl methyl ketone , MEK , Butanone , EK 500 Additive

Danger
H225 H319 H336
EUH066
P210 P280 P305+P351+P338

CAS 78-93-3
Index 606-002-00-3
EINECS: 201-159-0
UN: 1193
ADR 3,II
Flash Pt: -4 °C

$C_2H_5COCH_3$
M.W. 72.11 g/mol
Density: 0.8054 g/cm³ (20 °C)
Boiling Pt: 79.6 °C (1013 hPa)
Melting Pt: -86 °C
Storage Temperature: Ambient temperature

Methyl ethyl ketone HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.7 %
Acidity ..... Max. 0.0001 meq/g
Evaporation residue ..... Max. 5 ppm
Water ..... Max. 0.1 %
Transmittance (335 nm) ..... Min. 40 %
Transmittance (340 nm) ..... Min. 80 %
Transmittance (350 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
25643.294	1 l	Glass bottle
25643.328	2,5 l	Glass bottle

Methyl ethyl ketone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99.5 %
Acidity ..... Max. 0.0002 meq/g
Density (20/4) ..... 0.804 to 0.807
Acetone ..... Max. 0.05 %
Substances reducing $KMnO_4$ (as O) ..... Max. 3 ppm
2-Methylpropan-2-ol ..... Max. 0.1 %
Water ..... Max. 0.1 %
B (Boron) ..... Max. 0.02 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
K (Potassium) ..... Max. 0.1 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Sn (Tin) ..... Max. 0.1 ppm
Zn (Zinc) ..... Max. 0.1 ppm
IR Spectrum ..... Passes test
Colouration ..... Max. 10 APHA
Distillation range ..... 78.5 to 80.5 °C
Butan-2-ol ..... Max. 0.05 %
Methanol ..... Max. 0.05 %
Non-volatile residue ..... Max. 10 ppm
Al (Aluminium) ..... Max. 0.2 ppm
Ba (Barium) ..... Max. 0.1 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.05 ppm
Na (Sodium) ..... Max. 0.5 ppm
Pb (Lead) ..... Max. 0.1 ppm
Sr (Strontium) ..... Max. 0.02 ppm
Conforms to BDH 10317 ..... Passes test

Cat. No.	Pk	Pack type
25642.291	1 l	Glass bottle
25642.325	2,5 l	Glass bottle

Methyl ethyl ketone GPR RECTAPUR®

Assay ..... Min. 99 %
IR Spectrum ..... Passes test
Free acidity ..... Max. 0.0003 meq/g
Density (20/4) ..... 0.804 to 0.807
Distillation range ..... 78.0 to 80.5 °C
Evaporation residue ..... Max. 20 ppm
Water ..... Max. 0.1 %
Conforms to BDH 28353 ..... Passes test

Cat. No.	Pk	Pack type
25641.297	1 l	Plastic bottle
25641.322	2,5 l	Plastic bottle
25641.366	5 l	Plastic bottle
25641.468	25 l	Metal drum
25641.550	200 l	Metal drum

Methyl ethyl ketone TECHNICAL

Assay ..... Min. 99 %
Density (20/4) ..... 0.804 to 0.807
Distillation range ..... 78.0 to 80.5 °C

Cat. No.	Pk	Pack type
25654.292	1 l	Plastic bottle
25654.361	5 l	Plastic bottle
25654.463	25 l	Metal drum

Methyl 2-hydroxybenzoate

See Methyl salicylate p.293

Methyl 4-hydroxybenzoate

Methyl Parahydroxybenzoate , Methylparaben , 4-Hydroxybenzoic acid methyl ester

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311

CAS 99-76-3
EINECS: 202-785-7

$HOC_6H_4CO_2CH_3$
M.W. 152.15 g/mol
Density: 1.1208 g/cm³ (137 °C)
Boiling Pt: 270 to 280 °C (1013 hPa)
Melting Pt: 125 to 128 °C
Storage Temperature: Ambient temperature

Methyl 4-hydroxybenzoate Ph. Eur.

Assay ..... 98.0 to 102.0 %
Appearance ..... White cryst. powder
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity ..... Passes test
Related substances ..... Passes test
Sulphated ash ..... Max. 0.1 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
25604.290	1 kg	Plastic bottle for solids

Methyl 4-hydroxybenzoate TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
25605.293	1 kg	Plastic bottle for solids

Methyl iodide

See Iodomethane p.247

Methyl methacrylate (monomer)

Methacrylic acid methyl ester

Danger
H225 H335 H315 H317
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 80-62-6
Index 607-035-00-6
EINECS: 201-297-1
UN: 1247
ADR 3,II
Flash Pt: 8 °C

$CH_2=C(CH_3)COOCH_3$
M.W. 100.12 g/mol
Density: 0.93 g/cm³ (20 °C)
Boiling Pt: 100 °C (1013 hPa)
Melting Pt: -48 °C
Storage Temperature: Ambient temperature

Methyl methacrylate (monomer) TECHNICAL

Stabilised with hydroquinone monomethyl ether (4-methoxyphenol, MEHQ)
Assay ..... Min. 99.5 %

Cat. No.	Pk	Pack type
25600.296	1 l	Glass bottle

Methyl 2-methylprop-2-enoate

See Methyl methacrylate (monomer)..... p.291

Methyl 2-methylpropenoate

See Methyl methacrylate (monomer)..... p.291

Methyl orange (< 0.1%) in aqueous solution

CAS 547-58-0
EINECS: 208-925-3

$C_{14}H_{14}N_3NaO_3S$
Storage Temperature: Ambient temperature

Methyl orange 0.04% in aqueous solution TECHNICAL pH-indicator

Transition range: pH 3,1-4,4

Identification ..... Passes test

Cat. No.	Pk	Pack type
31720.230	250 ml	Glass bottle
31720.292	1 l	Glass bottle

Methyl orange (0.1 - < 1%) in ethanol (20-50%)

CAS 547-58-0
EINECS: 208-925-3
UN: 1170
ADR 3,III

$C_{14}H_{14}N_3NaO_3S$

Methyl orange solution Reag. Ph. Eur. 1054802

Cat. No.	Pk	Pack type
85882.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

(±)-Methyloxirane

See Propylene oxide..... p.395

Methylparaben

See Methyl 4-hydroxybenzoate p.291

Methyl Parahydroxybenzoate

See Methyl 4-hydroxybenzoate p.291

4-Methyl-2-pentanone

Danger
H225 H332 H319 H315
EUH066
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 108-10-1
Index 606-004-00-4
EINECS: 203-550-1
UN: 1245
ADR 3,II
Flash Pt: 16 °C

$(CH_3)_2CHCH_2COCH_3$
M.W. 100.16 g/mol
Density: 0.801 g/cm³ (20 °C)
Boiling Pt: 117.4 °C (1013 hPa)
Melting Pt: -84 °C
Storage Temperature: Ambient temperature

4-Methyl-2-pentanone AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	IR Spectrum	Passes test
Acidity	Max. 0.002 meq/g	Boiling point	115 to 117 °C
Colouration	Max. 10 APHA	Density (20/4)	0.799 to 0.803
Density (20/20)	0.800 to 0.804	Non-volatile residue	Max. 10 ppm
Substances reducing $KMnO_4$ (as O)	Max. 3 ppm	Water	Max. 0.1 %
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
25652.295	1 l	Glass bottle
25652.320	2,5 l	Glass bottle

4-Methyl-2-pentanone GPR RECTAPUR®

Assay	Min. 98 %
IR Spectrum	Passes test
Density (20/4)	0.790 to 0.810
Distillation range	114 to 118 °C
Evaporation residue	Max. 0.02 %

Cat. No.	Pk	Pack type
25656.298	1 l	Glass bottle
25656.323	2,5 l	Glass bottle
25656.367	5 l	Plastic bottle

4-Methyl-2-pentanone TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
25655.295	1 l	Glass bottle
25655.364	5 l	Plastic bottle

5-Methylphenazinium methyl sulphate

Phenazine methosulphate , PMS

Danger
H340 H319 H335 H315
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 299-11-6
EINECS: 206-072-1

$C_{14}H_{14}N_2O_4S$
M.W. 306.34 g/mol
Melting Pt: 198 °C
Storage Temperature: -20°C

VWR CHEMICALS 5-Methylphenazinium methyl sulphate, high purity

Em (257 nm)..... 60000
Em (385 nm)..... 20000
Purity (TLC)..... ONE SPOT
Solubility (5%, MeOH)..... PASS

Cat. No.	Pk	Pack type
0361-10G	10 g	Glass bottle

3-Methylphenol

See m-Cresol p.126

2-Methyl-1-propanol

See Isobutanol p.253

2-Methyl-2-propanol

See tert-Butanol..... p.87

N-Methyl-2-pyrrolidone (NMP)

Danger
H360D H319 H335 H315
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 872-50-4
Index 606-021-00-7
EINECS: 212-828-1
Flash Pt: 91 °C

C_5H_9NO
M.W. 99.13 g/mol
Density: 1.033 g/cm³ (20 °C)
Boiling Pt: 202 °C (1013 hPa)
Melting Pt: -24 °C
Storage Temperature: Ambient temperature

NEW N-Methyl-2-pyrrolidone (NMP) for peptide synthesis

Assay (calculated on anhydrous)..... Min. 99.5 %
Appearance..... Clear colourless liquid
Colour value..... Max. 10 APHA
Free amines..... Max. 0.001 %
Residue on evaporation..... Max. 0.002 %
Water..... Max. 0.02 %
Fe (Iron)..... Max. 0.1 ppm
Mg (Magnesium)..... Max. 0.1 ppm
Pb (Lead)..... Max. 0.1 ppm
Zn (Zinc)..... Max. 0.1 ppm

Cat. No.	Pk	Pack type
84572.320	2,5 l	Glass bottle

N-Methyl-2-pyrrolidone (NMP) GPR RECTAPUR®

Assay..... Min. 99.5 %
Acidity..... Max. 0.0002 meq/g
Alkalinity..... Max. 0.003 meq/g
Water..... Max. 0.1 %
Conforms to BDH 29251..... Passes test

Cat. No.	Pk	Pack type
26211.298	1 l	Glass bottle
26211.425	2,5 l	Glass bottle SAFEBREAK

N-Methyl-2-pyrrolidone (NMP) TECHNICAL

Assay..... Min. 99 %
Appearance..... Clear colourless liquid
IR Spectrum..... Passes test

Cat. No.	Pk	Pack type
25675.294	1 l	Glass bottle
25675.465	25 l	Metal drum

N-Methyl-2-pyrrolidone (NMP) VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153097.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

N-Methyl-2-pyrrolidone (NMP) for the electronics industry

Cat. No.	Pk	Pack type
52010265.	210 kg	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Methyl red (< 0.1%) in ethanol

Danger
H225
P210 P243 P280

CAS 493-52-7
EINECS: 207-776-1
UN: 1170
ADR 3,II
Flash Pt: 20 °C

$C_{15}H_{15}N_3O_2$
Storage Temperature: Ambient temperature

Methyl red 0.2 g/l in ethanol TECHNICAL

Transition range: pH 4,4 - 6,2
Identification..... Passes test

Cat. No.	Pk	Pack type
34302.231	250 ml	Glass bottle

Methyl salicylate

Methyl 2-hydroxybenzoate , Wintergreen Oil

Warning
H302
P301+P312

CAS 119-36-8
EINECS: 204-317-7
Flash Pt: 99 °C

$2\text{-(HO)}C_6H_4CO_2CH_3$
M.W. 152.15 g/mol
Density: 1.184 g/cm³ (20 °C)
Boiling Pt: 432 °C (1013 hPa)
Melting Pt: 100 to 101 °C
Storage Temperature: Ambient temperature

Methyl salicylate GPR RECTAPUR®

Assay..... Min. 99 %
Density (20/4)..... 1.180 to 1.190

Cat. No.	Pk	Pack type
25616.291	1 l	Glass bottle

(±)-2-Methyltetrahydrofuran

Danger
H225
EUH019
P210 P243 P280

CAS 96-47-9
EINECS: 202-507-4
UN: 2536
ADR 3,II
Flash Pt: -12 °C (closed cup)

$C_5H_{10}O$
M.W. 86.13 g/mol
Density: 0.86 g/cm³ (20 °C)
Boiling Pt: 79 °C (1013 hPa)
Melting Pt: -136 °C

(±)-2-Methyltetrahydrofuran GPR RECTAPUR® for synthesis

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 0.03 ppm

Appearance ..... Clear colourless liquid
Assay ..... Min. 99,0 %
IR Spectrum ..... Passes test
Water ..... Max. 0.03 %

Cat. No.	Pk	Pack type
87132.290	1 l	Glass bottle
87132.320	2,5 l	Glass bottle
87132.360	5 l	Metal can
87132.460	25 l	Metal drum
87132.550	188 l	Metal drum

7-Methyltheobromine

See Caffeine p.90

Methylthioninium chloride zinc chloride double salt

See Methylene blue NZ p.290

Methylthioninium chloride

See Methylene blue p.290

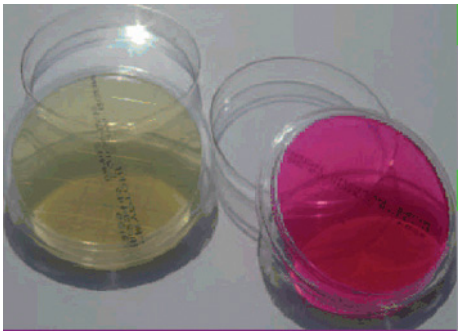
Meyer'reagent

Warning
H302
P301+P312
UN: 1760
ADR 8,II
Density: 1.1 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)

Meyer'reagent for blood research

Cat. No.	Pk	Pack type
31072.268	500 ml	Glass bottle

Plates (90 mm), irradiated



Available as 90 mm plates acc. to standards. TLHTh (Tween, lecithin, histidine, thiosulphate) are used as disinfectant neutralisers. Bags are available double or triple-wrapped. One pack per bag displays the irradiation indicator.

- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

The plates are packed 5 each in a plastic shrink-wrap bag. Each bag contains 2 packs (10 plates). The box supplied contains 2 bags with a total of 20 plates.

Description	Filling	Standard	Pk	Cat. No.
Letheen modified agar double wrapped	22 ml	FDA	20	112750ZI
PCA double wrapped	22 ml	EPA, ISO 4833	20	110774ZI
R2A double wrapped	22 ml	EPA	20	110802ZI
R2A triple wrapped	22 ml	EPA	20	130802ZI
Rose Bengal chloramphenicol penase double wrapped	20 ml	-	20	110070PY
Sabouraud-4% chloramphenicol agar double wrapped	22 ml	-	20	110884CY
Sabouraud 4% dextrose agar (SDA) with disinfectant neutraliser triple wrapped	22 ml	-	20	110884TI
Sabouraud 4% dextrose agar double wrapped	22 ml	EP, USP	20	110884ZI
Sabouraud 4% dextrose agar triple wrapped	22 ml	EP, USP	20	130884ZI
TSA double wrapped	22 ml	EP, USP, ISO	20	111114ZI
TSA penase double wrapped	22 ml	-	20	111114PY
TSA penase with neutralisers TLHTh double wrapped	22 ml	-	20	111114RY
TSA penase with neutralisers TLHTh triple wrapped	22 ml	-	20	131114RY
TSA TLHTh double wrapped	22 ml	Harm Ph	20	111114TI
TSA TLHTh triple wrapped	22 ml	Harm Ph	20	131114TI
TSA triple wrapped	22 ml	EP, USP, ISO	20	131114ZI

Contact plates, irradiated

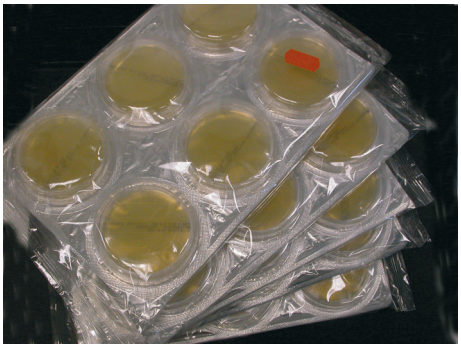
Bags are available double or triple wrapped. One pack per bag displays the irradiation indicator. Available with TLHTh (Tween, lecithin, histidine, thiosulphate) disinfectant neutralisers.

- Double or triple wrap prevents contamination during transport and storage
- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

The plates are packed 5 each in a plastic shrink-wrapped pack. Each bag contains 2 packs (10 plates). The box supplied contains 8 bags with a total of 80 plates.

Description	Filling	Pk	Cat. No.
PCA contact TLHTh triple wrapped	13 ml	80	140774TI
PCA contact triple wrapped	13 ml	80	140774ZI
Rose bengal chloramphenicol agar contact triple wrapped	13 ml	80	140070ZI
Sabouraud 4% dextrose agar contact TLHTh triple wrapped	13 ml	80	140884TI
Sabouraud 4% dextrose agar contact triple wrapped	13 ml	80	140884ZI
Sabouraud chloramphenicol contact triple wrapped	12 ml	80	140884CY
TSA contact penase TLHTh triple wrapped	13 ml	80	141114RY
TSA contact penase triple wrapped	13 ml	80	141114PY
TSA contact TLHTh triple wrapped	13 ml	80	141114TI
TSA contact triple wrapped	13 ml	80	141114ZI
VRBG agar contact double wrapped	13 ml	80	151203ZA

Contact plates, blister packed, irradiated



Available in two pack sizes - triple wrapped (24 plate pack) and double wrapped (30 plate pack). Plates are packed in a blister with 6 compartments. Each compartment carries 1 plate so every time you open a compartment you use only 1 plate. Available with TLHTh disinfectant neutraliser (Tween, lecithin, histidine, thiosulphate).

- Double or triple wrap prevents contamination during transport and storage
- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

30 plate packs comprise of 5 blister packs with an additional cellophane bag. 24 plate packs comprise of 4 blister packs with two additional cellophane bags. The irradiation indicator is featured on each blister.

Description	Filling	Pk	Cat. No.
Baird Parker agar blister double wrapped	12 ml	30	250063UA

Description	Filling	Pk	Cat. No.
Cetrimide agar contact blister double wrapped	12 ml	30	250793ZI
MacConkey agar blister double wrapped	12 ml	30	250641ZA
Malt extract agar contact blister double wrapped	12 ml	30	250544ZI
Malt extract agar with chloramphenicol contact blister double wrapped, 65 mm	15 ml	30	250542CA
Mannitol salt agar blister double wrapped	12 ml	30	250560ZA
PCA contact blister double wrapped	13 ml	30	250774ZI
PCA contact blister triple wrapped	13 ml	24	270774ZI
PCA TLHTh contact blister double wrapped	13 ml	30	250774TI
PCA TLHTh contact blister triple wrapped	13 ml	24	270774TI
Rose Bengal chloramphenicol agar contact blister double wrapped	13 ml	30	250070ZI
Sabouraud 4% dextrose agar contact blister double wrapped	13 ml	30	250884ZI
Sabouraud 4% dextrose agar contact blister TLHTh double wrapped	13 ml	30	250884TI
Sabouraud 4% dextrose agar contact blister TLHTh triple wrapped	13 ml	24	270884TI
Sabouraud 4% dextrose agar contact blister triple wrapped	13 ml	24	270884ZI
Sabouraud glucose 4% chloramphenicol agar blister double wrapped	13 ml	30	250884CY
TSA avec neutralisator TLHTh contact blister double wrapped	12 ml	30	251114SI
TSA contact blister double wrapped	13 ml	30	251114ZI
TSA contact blister penase double wrapped	13 ml	30	251114PY
TSA contact blister penase TLHTh double wrapped	13 ml	30	251114RY
TSA contact blister penase TLHTh triple wrapped	13 ml	24	271114RY
TSA contact blister TLHTh double wrapped	13 ml	30	251114TI
TSA contact blister TLHTh triple wrapped	13 ml	24	271114TI
TSA contact blister triple wrapped	13 ml	24	271114ZI
TSA with cycloheximide contact blister double wrapped	12 ml	30	251114AF
VRB agar contact blister double wrapped	12 ml	30	251183ZA
VRBG agar contact blister double wrapped	13 ml	30	251203ZA
VRBG-TLHTM	12 ml	30	251203TA

Contact plates

The range is manufactured from high quality raw materials. All the culture media are manufactured using selected dehydrated bases, and comply with the requirements of ISO 11133 (food microbiology). Manufactured under GMP, the media is produced using the latest technology and is subject to strict quality controls carried out by qualified microbiologists.

- Packed under cleanroom conditions to avoid contamination
- Storage at 2 to 8 °C
- Manufactured under GMP with formulations that follow specifications of the various Pharmacopoeias and ISO regulations

Description	Filling	Pk	Cat. No.
Contact plates total count	16,5 ml	40	AX061101
Contact plates yeast and moulds	16,5 ml	40	AX061102

Dehydrated culture media

A range of culture media in compliance with ISO standards and the International Harmonised Pharmacopoeia. All our media are, as you would expect, produced using high quality raw materials and are subject to strict quality controls, in a production environment following Good Manufacturing Practice guidelines. Raw materials are selected in compliance with the required standards. Dehydrated culture media should be stored at 10-30°C unless otherwise stated, in their closed containers in a dry environment. Standard pack size is 500 g.

- Compliant with international standards, such as ISO and Pharmacopoeia
- Media growth promotion testing performed in compliant with Pharmacopoeias and ISO 111331-2 standard
- Available in standard formulations and animal-free
- Custom products available

Description	Pk	Cat. No.
Baird Parker agar base	500 g	84664.0500
Blood agar base	500 g	84619.0500
Blood agar base No. 2	500 g	84647.0500
Brain heart infusion broth	500 g	84626.0500
Brilliant green agar	500 g	84631.0500
Brilliant green agar modified (Brilliant green phenol red lactose agar)	500 g	84634.0500
Brilliant green bile broth	500 g	84682.0500
Buffered peptone water	500 g	84600.0500
Buffered sodium chloride peptone broth	500 g	84605.0500
Campylobacter blood-free medium base Bolton (mCCDA)	500 g	84695.0500
Campylobacter Bolton broth base (modified CCDA)	500 g	84697.0500
Campylobacter Karmali medium agar base	500 g	84696.0500
CLED agar	500 g	84668.0500
Columbia agar base	500 g	84621.0500
DG 18 agar base	500 g	84632.0500
Dichloran rose bengal chloramphenicol (DRBC) agar	500 g	84670.0500
EC broth	500 g	84627.0500
Endo les agar	500 g	84645.0500
Enterobacteriaceae enrichment broth Mossel	500 g	84678.0500
Enterobacteriaceae enrichment broth mossel (Ph.Eur., USP, JP)	500 g	84689.0500
Fecal coliforms agar (m-FC agar)	500 g	84644.0500
Fluid thioglycollate medium	500 g	84681.0500
Fraser broth base	500 g	84611.0500

Description	Pk	Cat. No.
Hektoen enteric agar	500 g	84691.0500
KF streptococcus agar base (m - azide maltose agar KF)	500 g	84633.0500
Lactose TTC tergitol® 7 agar (Chapman TTC agar)	500 g	84657.0500
Lauryl sulfate broth	500 g	84639.0500
LB-agar (Miller)	500 g	84684.0500
LB broth (Miller)	500 g	84649.0500
Legionella CYE agar base	500 g	84629.0500
Letheen broth modified	500 g	84673.0500
Listeria buffered enrichment broth base	500 g	84652.0500
Listeria enrichment broth	500 g	84606.0500
Listeria selective agar supplement according to Ottaviani & Agosti	500 g	84748.0500
MacConkey agar	500 g	84614.0500
MacConkey broth	500 g	84680.0500
Malt extract agar no. 2	500 g	84665.0500
Malt extract broth	500 g	84666.0500
Mannitol egg yolk polymyxin agar base – MYP agar acc. to Mossel	500 g	84635.0500
Mannitol salt phenol-red agar	500 g	84622.0500
Maximum recovery diluent	500 g	84617.0500
M-broth	500 g	84690.0500
Milk plate count agar	500 g	84643.0500
MRS agar	500 g	84607.0500
MRS broth	500 g	84613.0500
Mueller-Hinton agar	500 g	84686.0500
Mueller-Hinton broth	500 g	84648.0500
Muller-Kauffmann tetrathionate-novobiocin broth (MKTTN)	500 g	84624.0500
Nutrient agar DEV	500 g	84749.0500
Nutrient agar n.1	500 g	84654.0500
Nutrient broth	500 g	84662.0500
Orange serum agar	500 g	84646.0500
Oxford agar base	500 g	84630.0500
Oxytetracycline-glucose-yeast extract agar base (OGYE agar)	500 g	84659.0500
Palcam agar base	500 g	84625.0500
Plate count agar-PCA (Standard methods agar)	500 g	84608.0500
Potato dextrose agar	500 g	84651.0500
Pseudomonas agar base	500 g	84650.0500
Pseudomonas selective (Cetrimide) agar	500 g	84638.0500
R2A agar	500 g	84671.0500
Rappaport Vassiliadis (RSV) broth	500 g	84656.0500
Rappaport Vassiliadis Salmonella enrichment broth	500 g	84658.0500
Reinforced clostridial medium	500 g	84699.0500
Rose bengal chloramphenicol agar	500 g	84669.0500
Sabouraud-2% dextrose broth	500 g	84685.0500
Sabouraud dextrose agar	500 g	84663.0500
Selenite cystine broth	500 g	84655.0500
TCBS agar	500 g	84641.0500
Tetrathionate crystalviolet broth	500 g	84694.0500
Triple sugar iron agar	500 g	84698.0500
Tryptic soy agar (Casein soya bean digest agar)	500 g	84602.0500
Tryptic soy agar + lecithin+Tween 80	500 g	84642.0500
Tryptic soy broth	500 g	84675.0500
Tryptic soy broth irridiated	500 g	84677.0500
Tryptic soy broth non animal origin	500 g	84679.0500
Tryptic soy broth non animal origin irradiated	500 g	84674.0500
Tryptone bile x-glucuronide agar (TBX)	500 g	84637.0500
Tryptose sulfite cycloserine (TSC) agar	500 g	84636.0500
TSB, non animal, triple wrapped	500 g	84855.0500
TSB, non animal, triple wrapped	5 kg	84855.5000
Urea agar base	500 g	84653.0500
Violet red bile glucose (VRBG) agar	500 g	84603.0500
Violet red bile lactose (VRB) agar	500 g	84612.0500
Wort agar	500 g	84661.0500
Wort broth	500 g	84660.0500
XLD (Xylose lysine deoxycholate) modified agar	500 g	84667.0500
Yeast extract agar modified for ISO 6222	500 g	84683.0500
Yeast extract dextrose chloramphenicol (YGC) agar	500 g	84604.0500

Base materials for dehydrated media

The ingredients used to prepare culture media are very important because ultimately the results depend on the quality of these compounds. Raw Materials should be stored at 10-30°C unless otherwise stated, in their closed containers in a dry environment.

- Ingredients are specifically selected to ensure consistent and reproducible results
- Manufactured under the strictest cGMP standards
- Handy 500 g bottles

Description	Pk	Cat. No.
Bacteriological agar	500 g	84609.0500
Casein hydrolysate (acid)	500 g	84623.0500
Malt extract	500 g	84618.0500
Meat extract dry	500 g	84688.0500
Meat peptone P	500 g	84687.0500
Peptone from meat (enzymatic digest of animal tissue)	500 g	84620.0500
Skim milk powder	500 g	84615.0500
Soya peptone (Enzymatic digest of soybean meal)	500 g	84616.0500
Tryptone (Peptone from casein)	500 g	84610.0500
Yeast extract	500 g	84601.0500

Media supplements for dehydrated culture media

The isolation of microorganisms often requires the use of selective media. The use of freeze-dried supplements ensures an optimal and standardised media preparation and optimised performance. For 500 ml medium.

- Freeze-dried
- No aerosols of toxic agents released upon opening
- Standard volumes make preparation easier
- User friendly screw caps
- Can be stored at room temperature

Description	Pk	Cat. No.
Ampicillin selective supplement	10	928010NL
Campylobacter Bolton	10	928250NL
Campylobacter Preston selective supplement	10	928050OL
Chloramphenicol 25 selective supplement	10	928260NL
Coliform CV selective supplement	10	928390NL
Cycloheximide selective supplement	10	928370NL
D-Cycloserine selective supplement	10	928330NL
Egg yolk sterile emulsion	100 ml	351430ZF
Egg yolk tellurite sterile emulsion	100 ml	351430XF
Egg yolk tellurite sterile emulsion	50 ml	361430XF
Ferric ammonium citrate supplement (250 mg)	10	928300NL
Ferric ammonium citrate supplement (312 mg)	10	928340NL
GPS growth promotion supplement	5	968290NL
Legionella BCYE growth supplement	5	968130NL
Legionella GVPC selective supplement	10	928140NL
Listeria enrichment supplement	10	335032ZF
Listeria FDA FIL/IDF selective supplement	10	928380NL
Listeria Fraser/UVM II sel supplement	10	928110OL
Listeria half Fraser selective supplement	10	928280NL
Listeria Oxford selective supplement	10	928170OL
Listeria Palcam selective supplement	10	928200NL
Listeria selective supplement	10	928460NL
Listeria UVM I selective supplement	10	928150NL
M-CP selective supplement	10	928320NL
MUG fluorescent supplement	10	928360NL
Nalidixate selective supplement	10	928090NL
Novobiocin selective supplement	10	928180NL
Oxytetracycline selective supplement	10	928190NL
Polymixin selective supplement	10	928020NL
Polysorbate 80 (Tween 80)	100 ml	303570ZK
Rosolic acid solution 0,1% supplement	100 ml	355070ZF
RPF supplement	10	602730ZL
Sodium bisulphite selective supplement	10	928350NL
VCNT selective supplement	10	928230NL
Yersinia selective supplement	10	928240OL

Media supplements for dehydrated culture media

Supplements are available in vials, each one containing the antimicrobial agents sufficient to supplement 500 ml of medium unless otherwise stated.

- Freeze-dried

Description	Pk	Cat. No.
Bacillus cereus supplement	10 Vial	84732.0001
BCYE α-growth supplement	4 Vial	84726.0001
BCYE α-growth supplement w/o cysteine	4 Vial	84727.0001
Bolton broth selective supplement	10 Vial	84744.0001
CCD selective supplement	10 Vial	84742.0001
CFC selective supplement	10 Vial	84746.0001

Description	Pk	Cat. No.
Chloramphenicol	10 Vial	84729.0001
CN selective supplement	10 Vial	84745.0001
d-Cycloserine supplement	10 Vial	84734.0001
Egg yolk emulsion	50 ml	84733.0001
Fraser half selective supplement	10 Vial	84721.0001
Fraser selective supplement	10 Vial	84720.0001
Glycerol for Pseudomonas agar base	100 ml	84730.0001
GVPC supplement	4 Vial	84725.0001
Iodine iodide solution	50 ml	84723.0001
Karmali selective supplement	10 Vial	84743.0001
Novobiocin MKTT supplement	10 Vial	84722.0001
Oxford supplement	10 Vial	84728.0001
Palcam supplement	10 Vial	84724.0001
PP selective supplement	10 Vial	84747.0001
TTC 1% solution	30 ml	84731.0001

Media for use in media fill test

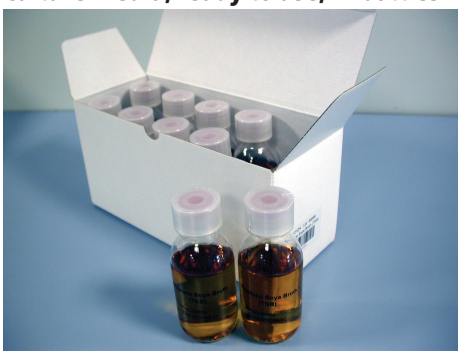
Validation of aseptic processing should include a simulation test using a nutrient medium, known as the media fill test or media simulation test. The selection of the nutrient medium should be made based on the quantity of the product produced and the selectivity, clarity, concentration and suitability for sterilisation of the nutrient medium. The process simulation test should imitate as closely as possible the routine aseptic manufacturing process and include all the critical subsequent manufacturing steps. Normally process simulation tests should be repeated twice a year per shift and process. The number of containers used for media fills should be sufficient to enable a valid evaluation. For small batches, the number of containers for media fills should at least equal the size of the product batch.

- Ready to use media saves time
- Decreases the risks associated with the media preparation
- Guarantees filtration through a 0.2 µm membrane
- Sterility and fertility according to international requirements and guidelines for validation of media fill
- The medium is irradiated, BSE-free and mycoplasma-free certified, complying with the recommendations of USP XXVI (2003) and EP (1999)

Batch size is 500 litres, each batch is tracked by the following documentation: Certificates of origin, filterability studies, comparative fertility studies, sterility and conformity certificates. Each bag or bottle is double wrapped.

Description	Filling	Pk	Cat. No.	Price
Media for Media Fill Test, bag with connectors	10 l	10 l	AX0110087	416,00
Media for Media Fill Test, bottle	1 l	1 l	AX0110086	100,00

Culture media, ready to use, in bottles



Ready to use culture media for microbiological test requirements in the food industry, water and environmental control and in the pharmaceutical industry. The range is manufactured from high quality raw materials. All the culture media are manufactured using selected dehydrated bases, and comply with various standards. All media are produced using the latest technology and are subject to strict quality controls carried out by qualified microbiologists.

- Storage at room temperature for selected media
- Supplied in glass bottles with different screw caps
- Certificate of Analysis, which guarantees product conformity

Description	Filling	Standard	Size	Cap	Pk	Cat. No.
Antibiotic agar control pH 6.0	100 ml	-	150 ml	Aluminium	10	AX021189
Antibiotic agar control pH 8.0	100 ml	-	150 ml	Aluminium	10	AX021197
Antibiotic agar N° 10	200 ml	-	250 ml	-	10	454810ZA
Antibiotic medium A	200 ml	EP	250 ml	Aluminium	6	AX021205
Antibiotic medium B	200 ml	EP	250 ml	Aluminium	6	AX021206
Antibiotic medium E	200 ml	-	250 ml	Aluminium	6	AX022241
Baird Parker agar base	180 ml	-	250 ml	Aluminium	10	430063ZA
Baird-Parker agar base	90 ml	-	125 ml	Aluminium	10	312950ZA
Beerens dilution	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	302240ZA
Beerens dilution	90 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	312240ZT
BHI broth mod.	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303415ZA
Bile esculin azide agar	200 ml	ISO 7899-2	250 ml	Aluminium	6	AX022293
Bioburden broth	100 ml	-	125 ml	-	10	304750OA
Bolton broth (base)	200 ml	-	250 ml	-	10	563390ZF
Bordet jengou	100 ml	-	250 ml	-	10	AX029167
Bufered peptone water	225 ml	ISO 6579, ISO 8523, ISO 6785	500 ml	Aluminium screw outer cap + elastomer inner septum	10	410173ZA
Buffered peptone 0,1% with lecithin	90 ml	-	150 ml	-	10	311312LA

Description	Filling	Standard	Size	Cap	Pk	Cat. No.
Buffered peptone water	100 ml	ISO 6579, ISO 8523 and ISO 6785	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	300173ZA
Buffered peptone water	90 ml	ISO 6579, ISO 8523 and ISO 6785	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	310173ZA
Buffered peptone water	225 ml	ISO 6579, ISO 8523 and ISO 6785	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400173ZA
Buffered peptone water	200 ml	ISO 6579, ISO 8523, ISO 6785	250 ml	Aluminium screw outer cap + elastomer inner septum	10	450173ZA
Buffered peptone water 0,1%	100 ml	Harm Ph	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301314ZA
Buffered peptone water 0,1%	90 ml	Harm Ph	125 ml	Plastic screw inner cap + elastomer septum + protective outer, cap + shrink wrapped plastic sleeve	10	311314ZA
Buffered peptone water 0,1%	300 ml	Harm Ph	500 ml	Aluminium screw outer cap + elastomer inner septum	10	531314ZA
Buffered peptone water 0,1%	50 ml	-	100 ml	-	8	881314ZA
Buffered peptone water 0.1 %	475 ml	-	500 ml	Aluminium screw outer cap + elastomer inner septum	10	561314ZA
Buffered peptone water 10% Tween	100 ml	Harm Ph	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303480TA
Butterfield buffer	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303610ZA
Cetrimide agar	100 ml	EP, USP	150 ml	Aluminium	10	AX021182
Cetrimide agar	200 ml	EP, USP	250 ml	Aluminium	6	AX022222
Chromocult Coliform agar	200 ml	-	250 ml	Aluminium screw outer cap	10	401274ZH
Czapek Dox metal agar	475 ml	-		-	10	530274XA
DEV lactose peptone bouillon	50 ml	-	125 ml	-	10	373564ZA
DEV nutrient agar	200 ml	-	250 ml	-	10	300692ZA
DEV nutrient agar	200 ml	German Drinking Water Regulations	250 ml	Non injectable cap	10	453554ZA
Dextrose Tryptone agar (DTA)	100 ml	-	125 ml	-	10	303525ZA
EE broth, Mossel	90 ml	EP, USP, JP	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021380
EE broth, Mossel	90 ml	EP	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX029148
EE broth, Mossel	100 ml	Eur Pharm 6	150 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	300304ZA
EE Mossel broth	90 ml	Harm Ph	125 ml	Aluminium screw outer cap + elastomer inner septum	10	310304ZA
Fluid D	400 ml	Harm Ph	500 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	563200OA
Fraser broth	200 ml	ISO 11290-1:	200 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	400343ZF
Fraser broth 1/2	225 ml	-	250 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	400343VF
FTM + resazurine (acc USP)	100 ml	USP	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301051ZA
Henkel standard	90 ml	-	200 ml	-	10	473040TH
Henkel-Standard solution	90 ml	-	250 ml	-	10	313040TH
Iodine-Iodide solution	50 ml	ISO 6579:2002	50 ml		50 ml	499319OO
Kanamycin aesculin azide agar	200 ml	acc. To Mossel	250 ml	Non injectable cap	10	451830ZA
Lactose broth	100 ml	EP, USP, EPA	250 ml	Aluminium screw outer cap + elastomer inner septum	10	300440ZA
Lactose broth	90 ml	EP, USP, EPA	150 ml	Aluminium screw outer cap + elastomer inner septum	10	310440ZA
LB broth acc. to Miller	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	302510ZA
Letheen agar	200 ml	-	250 ml	-	10	401570ZA
Letheen broth	100 ml	FDA	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	301580ZA
Letheen broth modified	90 ml	FDA	125 ml	Aluminium screw outer cap + elastomer inner septum	10	312760ZA
Letheen modified broth	90 ml	-	125 ml	-	10	302754OA
Liquid A 0,1 %	300 ml	-	-	-	10	551314XA
Liquid A 0.1%	100 ml	Harm Ph	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301314XA
Liquid A 0.1%	475 ml	Harm Ph	500 ml	Aluminium screw outer cap + elastomer inner septum	10	561314XA
Listeria enrichment broth (LEB)	475 ml	-	500 ml	-	10	560472ZA
Listeria enrichment broth (LEB broth)	225 ml	-	250 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	400472XA
Liver meat agar	200 ml	-	250 ml	Aluminium	6	AX022292

Description	Filling	Standard	Size	Cap	Pk	Cat. No.
M17 agar	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303532ZA
MacConkey agar no 3	100 ml	EP, USP	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	300641ZA
MacConkey broth	100 ml	EP, USP	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	300674ZA
Maximum recovery diluent	100 ml	ISO 6887-1	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	313120ZA
Max recovery diluent with Tween	200 ml	Ph	250 ml	-	8	881314TA
Milk plate count agar	200 ml	-	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400774XA
Milk plate count agar	450 ml	-	500 ml	-	10	530774XA
MRS agar	200 ml	DIN 13721, ISO 10109	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400582ZA
Muller Kauffmann Tetrathionate-Novobiocin broth (MKTTn)	100 ml	ISO 6579:2002	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301030ZA
MYP agar base	90 ml	ISO 7932:2004	250 ml	Aluminium screw outer cap + elastomer inner septum	10	310053ZA
NaCl Peptone bouillon+1% Tween	100 ml	ISO 6887-1	125 ml	Plastic screw inner cap + elastomer septum + protective outer, cap + shrink wrapped plastic sleeve	10	303151OA
NaCl peptone water	90 ml	ISO 6887-1	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	313155ZA
Nutrient agar	200 ml	-	250 ml	-	10	011642ZA
OGYE agar	200 ml	ISO 13681:1995.	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400720ZA
Orange serum agar	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300733IA
Orange serum agar	50 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	370731ZA
Orange serum agar	200 ml	-	250 ml	Non injectable cap	10	450731ZA
PBPS 4% Tween 0.5% Lecithin	90 ml	Harm Ph	250 ml	Aluminium screw outer cap + elastomer inner septum	10	471314TH
PBTL 3% Tween 0.3% Lecithin	90 ml	Harm Ph	250 ml	Aluminium screw outer cap + elastomer inner septum	10	471314TA
PCA	100 ml	-	125 ml	-	10	300774ZA
PC agar	450 ml	-	500 ml	Non injectable cap	10	530774ZA
PCA without glucose	100 ml		150 ml	Aluminium	10	AX021264
PCA without Glucose	200 ml		250 ml	Aluminium	6	AX022206
Peptone 0,1% with Tween o,1%	100 ml	Harm Ph	125 ml	Plastic screw iner cap + elastomer septum + protective outer cap	10	301314TA
Peptone water 0,1%	100 ml	-	125 ml	-	10	302252ZA
Pharmacopoeia diluent (NaCl peptone broth pH 7) Tween® 80 1%	90 ml	-	150 ml	Aluminium	10	AX021320
Pharmacopoeia diluent with neutralising agent (DNP)	90 ml	-	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021146
Plate count agar	200 ml	-	250 ml	Aluminium screw outer cap + elastomer inner septum	10	450774ZA
Polyvalent univ. neutraliser	45 ml	-	100 ml	-	10	332760TA
Potato dextrose agar	200 ml	Harm Ph	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400782ZA
Preston broth without blood	225 ml	-	500 ml	Aluminium screw outer cap + elastomer inner septum	10	401640ZA
R2A Medium	100 ml	EP, EPA	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300802ZA
Rappaport Vassiliadis broth		-	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021263
Rappaport Vassiliadis broth	100 ml	EP, USP, JP	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021383
Rappaport Vassiliadis EU Pharm	90 ml	Harm Ph	125 ml	Aluminium screw outer cap + elastomer inner septum	10	313552ZA
Reinforced clostridia medium	100 ml	-	125 ml	-	10	300842ZA
Sab. Chloramphenicol agar	200 ml	Harm Ph	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400884CA
Sabouraud 2% dextrose broth	100 ml	Harm Ph	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	300894ZA
Sabouraud 2% glucose agar	200 ml	-	250 ml	Aluminium	6	AX022245
Sabouraud 2% glucose broth	100 ml	-	150 ml	Aluminium	10	AX021154
Sabouraud 4% dextrose agar	475 ml	-	500 ml	-	10	560885ZH
Sabouraud agar	200 ml	EU, USP	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400884ZA
Sabouraud chloramphenicol agar	400 ml	EP, USP 31	500 ml	Aluminium screw outer cap + elastomer inner septum	10	550884CA
Sabouraud dextrose agar	100 ml	Harm Ph	125 ml	Aluminium	10	300884ZA
Sabouraud dextrose agar	400 ml	EP, USP	500 ml	Aluminium screw outer cap + elastomer inner septum	10	550884ZA
Selenite cystine broth	100 ml	ISO 6579, USP	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300954ZA

Description	Filling	Standard	Size	Cap	Pk	Cat. No.
SPS agar	200 ml	-	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401320ZA
TAT broth base w/o Tween	90 ml	-	125 ml	Plastic screw inner cap + elastomer septum + protective outer, cap + shrink wrapped plastic sleeve	10	311114YZ
TBG broth	100 ml	EP	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021112
TBX agar	100 ml	ISO 16649-1	150 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	301004ZA
Thioglycollate Penase broth	100 ml	Harm Ph	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301051PF
TMLB-letheen-Tween® broth	90 ml	-	150 ml	Aluminium	10	AX021258
TOS agar	475 ml	-	500 ml	Non injectable cap	10	534744ZF
Tributyrin agar	100 ml	-	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301353ZA
Tryptone yeast extract agar	100 ml	ISO 6222:1999	125 ml	Non injectable cap	10	301250ZA
Tryptone yeast extract agar	250 ml	-	500 ml	-	10	561252ZA
Tryptone yeast extract agar	250 ml	-	500 ml	-	10	451254ZA
TSA, Tryptic soy agar	400 ml	Harm Ph, ISO 9308-1	500 ml	Aluminium screw outer cap + elastomer inner septum	10	551114ZA
TSA Tryptic soy agar	200 ml	Ph harm.	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401114ZA
TSA Tryptic soy agar	450 ml	Harm Ph, ISO 9308-1	500 ml	Aluminium screw outer cap + elastomer inner septum	10	531114ZH
TSB	100 ml	Eu Ph, ISO 9301-1, FDA, USP	125 ml	Metal cap w/o septum	10	301121ZQ
TSB	55 ml	Eu Ph, ISO 9301-1, FDA, USP	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	371121ZA
TSB	200 ml	EP, USP	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401115ZH
TSB +0.07% lecithine+0.5% Tween	475 ml	-	500 ml	-	10	561122SA
TSB +0.07% lecithine+0.5% tween 100ML	100 ml	-	125 ml	-	10	301122SA
TSB Penase broth	100 ml	USP, FDA and Eu Ph	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301121PF
TSB Tryptic soy broth	100 ml	Harm Ph, ISO9308-1	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap	10	301121ZA
TSB Tryptic soy broth	90 ml	Eu Ph, ISO 9301-1, FDA, USP	150 ml	Aluminium screw outer cap + elastomer inner septum	10	311121ZA
TSB Tryptic soy broth	200 ml	Eur Phu, ISO 9301-1, FDA, USP	250 ml	Aluminium screw outer cap + elastomer inner septum	10	451121ZA
TSB with 0,1% Tween	90 ml	-	125 ml	-	10	311122OA
TSB with TLHC	100 ml	-	125 ml	-	10	301121TA
TSC agar base	100 ml	UNE 13401 and UNE EN 26461-2	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	301141ZA
VRB agar	200 ml	Harm Ph ISO 5552	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401183ZA
VRB agar	450 ml	-	500 ml	-	10	531183ZA
VRBD agar	200 ml	Harm Ph ISO 5552	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401203ZA
VRBD agar	450 ml	-	500 ml	-	10	531203ZA
Yeast extract agar	200 ml	-	250 ml	-	10	451251ZA
YGC agar	200 ml	ISO/DIS 6611	250 ml	Aluminium	6	AX021259
YGC agar	450 ml	ISO 7954:1987	500 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	532230CA
YGC agar	200 ml	-	250 ml	-	10	402232ZA

Media in bottles

Description	Filling	Pk	Cat. No.
Letheen broth	1000 ml	9	22.06.1000.132
TAT broth	1000 ml	9	22.06.1000.137
TSB, double concentrated	1000 ml	9	22.06.1000.133

Culture media, ready to use, in tubes

For various microbiological uses.

- Storage at room temperature for selected media
- Compact packaging, tubes are fitted with aluminium screw caps

Description	Filling	Standard	Pk	Cat. No.
Azide broth (Rothe)	10 ml	-	20	690042ZA
Brain heart infusion broth	10 ml	-	20	600113ZA
Brillant green 2% bile broth	10 ml	APHA, AWWA	20	730144WA
Brillant green 2% bile broth, Durham tubes 16×112 mm	5 ml	ISO 4831:2006	20	650144ZA
Brillant green bile broth	9 ml	APHA, AWWA	20	690144ZA
Buffered peptone water	9 ml	ISO 6579, ISO 8523, ISO 6785	20	610173ZA
Buffered peptone water 0,1%	10 ml	-	20	601314ZA
Buffered peptone water 0.1%	9 ml	Harm Ph	20	611314ZA
E.C.broth, Durham tube 16x112mm	9 ml	-	20	601450ZA
EE Mossel broth	9 ml	Harm Ph	20	600304ZA
Fluorocult ® LMX broth modified	2 ml	-	20	602524ZF
Fraser broth	10 ml	-	20	600343ZF
Giolitti Cantoni broth	10 ml	-	20	790360WF
Giolitti Cantoni broth	19 ml	-	20	710360ZF
Giolitti Cantoni broth	9 ml	-	20	610360ZF
Glucose agar	7 ml	-	20	603572ZA
Indole ornithine motility medium	9 ml	-	20	651820ZA
Kanamycin esculin broth	9 ml	-	20	611830ZA
Kligler agar, slope	7,5 ml	-	20	640431ZA
Lactose broth	9 ml	EP, USP, EPA	20	690440ZA
Lauryl sulphate broth	10 ml	ISO 5541-2, 4841	20	890450WA
Lauryl sulphate broth	9 ml	-	20	690450ZA
Lauryl sulphate broth, Durham tubes 16x112 mm	9 ml	ISO 4831:2006	20	650450ZA
Lauryl sulphate broth MUG Durham	9 ml	-	20	690450XA
Letheen broth	10 ml	FDA	20	601580ZA
Letheen broth	9 ml	-	20	611585ZA
Löwenstein-Jensen medium	6,4 ml	-	20	640504ZA
Löwenstein-Jensen pyruvate medium 6.5ML	6,5 ml	-	16	640504XA
Lysine iron agar, slope	7,5 ml	-	20	640511ZA
MacConkey broth	9 ml	Harm Ph	20	690674ZA
Maximum recovery diluent	9 ml	ISO 6887-1	20	613120ZA
M broth	9 ml	-	20	613270ZA
MKTTn broth acc. to ISO 6579	10 ml	ISO 6579	50	AX011184
MRS agar	20 ml	ISO 9332, ISO 15214, IFU Methods 5,7,9	20	720582ZA
MRS broth	10 ml	-	20	600592ZA
MRS broth, Durham tube	9 ml	-	20	690592ZA
Mueller-Kauffmann Tetrathionate broth	10 ml	ISO 6579:2002	20	601030ZA
O/F glucose medium	10 ml	-	20	651810ZA
Orange serum agar	20 ml	-	20	730731ZA
Orange serum agar acid	9 ml	-	20	730733IA
Palcam broth	10 ml	-	20	601410ZF
PCA	20 ml	-	20	720774ZA
PCA agar	15 ml	ISO 4833	20	730774ZA
Peptone water	9 ml	ISO 7251	20	610753ZA
Pharmacopoeia diluent with neutralising agent (DNP)	9 ml	-	50	AX011158
Rappaport Vassiliadis broth	10 ml	ISO 6579	50	AX011124
Rappaport Vassiliadis broth	10 ml	ISO 6579:2002	20	600834ZA
Ringer solution	10 ml	-	20	601770ZA
Ringer solution	9 ml	-	50	AX011139
Ringer solution	9 ml	-	20	611770ZA
RVS broth	10 ml	EP, USP, JP, Harm Ph	20	603552ZA
Sab. chloramphenicol agar	7 ml	-	20	640884CA
Sabouraud broth	9 ml	Harm Ph	20	600894ZA
Saline + 0.1% peptone broth 20X9ML	9 ml	ISO 6887-1	20	613155ZA
Saline + Polysorbate 20X9ML	9 ml	-	20	602600OA
Selenite broth	10 ml	-	20	600944ZA

Description	Filling	Standard	Pk	Cat. No.
Selenite cystine broth	10 ml	ISO 6579	20	600954ZA
Simmons citrate agar	6 ml	-	20	640971ZA
SPS agar (Perfringens selective agar)	10 ml	-	20	601320ZA
SPS agar DC	10 ml	-	20	761320WA
SPS agar with paraffin (Perfringens selective agar)	10 ml	-	20	601320XA
ß-Glucuronidase	2 ml	-	20	632100ZF
Thioglycollate medium USP	9 ml	Harm Ph	20	621051ZA
Todd Hewitt broth	10 ml	-	20	601060ZA
Todd Hewitt with antibiotic	10 ml	-	20	601060AA
Tryptone water	9 ml	ISO 7251	20	601083ZA
Tryptone yeast extract agar	15 ml	ISO 6222:1999	20	731250ZA
TSA tryptic soy agar	15 ml	EP, USP, ISO 9308-1	50	AX011101
TSA tryptic soy agar, slope	6,5 ml	Harm Ph	20	641114ZA
TSB	10 ml	USP, FDA and Eu Ph	20	601121ZA
TSB	15 ml	USP, FDA and Eu Ph	20	751121ZA
TSB tryptic soy broth	9 ml	USP, FDA, Eu Ph	20	611121ZA
TSB tryptic soy broth with neutralisers TLHTh	10 ml	-	20	721115TA
TSB with 0.1% Tween	9 ml	-	20	611122OA
TSB with Tween 80 1% 20X7ML	7 ml	USP, FDA, EuPh	20	601121OA
TSI, slope	7,5 ml	ISO 6579:2002	20	641071ZA
TSN agar	9 ml	-	20	601370ZA
Tyrobutyricum broth	9 ml	-	20	601353ZA
Urea broth	2 ml	-	20	661161ZA
Urea Indole broth	2 ml	-	20	661161XF
Violet red bile glucose agar (VRBG)	15 ml	Harm Ph	20	731203ZA
VP-RM broth	10 ml	-	20	600531ZA
Yeast starch glucose agar (YSGA) TUBES	20 ml	IFU Method No 12	20	723650YF
YSG broth	2,5 ml	IFU Method No 12	20	663650YF

Culture media, ready to use, in plates

For various microbiological applications. The special packaging has several advantages: - high and great protection of the product during transport and storage; - possibility of using the package itself to transport the plates after the sampling and after incubation; - storage temperature from 2 up to 25º C and easier to recycle as it is PET, without the presence of aluminium.

- Packed under cleanroom conditions to avoid contamination
- Manufactured with formulations that follow specifications of the various Pharmacopoeias and ISO regulations
- Packaging for 55 mm plates

The cellophane bag packaging have a special packaging in boxes of 30 plates.

Description	Filling	Standard	Pk	Cat. No.
Plates 55 mm				
Bile esculin azide agar	12 ml	ISO 7899-2:2001	30	170082UA
Mannitol agar	12 ml	Harm Ph	30	170560ZA
MacConkey agar	12 ml	-	30	170641ZA
Nutrient agar	12 ml	-	30	170692ZA
Orange Serum agar	12 ml	-	30	170731ZA
PCA	10 ml	ISO 4833, EPA	30	170774ZA
Cetrimide agar (CN)	12 ml	ISO 12780:2002	30	170793NA
Cetrimide agar	12 ml	EP, USP	30	170793ZA
R2A agar	10 ml	EP	30	170802ZI
Sabouraud 4% chloramphenicol agar	10 ml	Harm Ph	30	170884CF
Sabouraud 4% dextrose agar	12 ml	Harm Ph	30	170884ZA
Slanetz & Bartley agar	10 ml	ISO 7899-2	30	170980ZA
Tergitol-7 agar	12 ml	ISO 9308-1	30	171023ZA
TSA agar	12 ml	Harm Ph	30	171114ZA
Tryptone yeast agar	12 ml	ISO 6222:1999	30	171250ZA
Chromocult Coliform agar	12 ml	-	30	171274ZA
Chromocult Enterococci	12 ml	-	30	171284ZA
M-Green agar	12 ml	-	30	171300ZA
SPS agar	12 ml	-	30	171320ZA
M-FC agar	12 ml	-	30	171380ZA
M-CP agar	12 ml	-	30	171400ZA
DEV agar	12 ml	acc. to the German Standard Methods	30	173554ZA
Chromogenic selective agar E. coli	12 ml	-	30	173580ZA
Potato dextrose agar	20 ml	-	20	AX051132
PCA without glucose	20 ml		20	AX051165
Plates 90 mm				
MYP agar with polymyxin B, egg yolk	20 ml	-	20	100053UA
Baird-Parker agar	20 ml	ISO 6888-1:1999	20	100063UA
Rose bengal agar	20 ml	-	20	100070ZA
Bile esculine azide agar	20 ml	ISO 7899-2:2001	20	100082XA
BPLS agar acc. to Kristensen (brilliant green, phenol red, lactose, saccharose)	20 ml	acc. potable water, spanish legislation	20	100121ZA
Campylobacter blood-free CCDA agar	20 ml	ISO 10272:2006	20	100191ZF
Sheep blood polymyxin agar	20 ml	-	20	100250DF

Description	Filling	Standard	Pk	Cat. No.
Columbia sheep blood + ANC	20 ml	Harm Ph	20	100253NF
Columbia sheep blood agar	20 ml	Harm Ph	20	100253ZF
DNAse test agar	20 ml	-	20	100291ZA
EMB agar	20 ml	ISO 21150:2006	20	100331ZA
Thayer Martin agar	20 ml	-	20	100353OF
Hektoen enteric agar	20 ml	-	20	100371ZA
Legionella GVPC	20 ml	ISO 11731:1998	20	100460GF
Legionella BCYE non Cysteine	20 ml	ISO 11731:1998	20	100460XF
Legionella BCYE	20 ml	-	20	100460ZF
Malt extract metal agar	20 ml	-	20	100544XA
Malt extract agar	20 ml	-	20	100544ZA
Mannitol salt agar	20 ml	Harm Ph	20	100560ZA
MRS cysteine agar	20 ml	-	20	100582JA
MRS +sorbic acid agar	20 ml	-	20	100582XA
MRS agar	20 ml	-	20	100582ZA
Müller Hinton 2% NaCl agar	20 ml	-	20	100611ZA
Mueller Hinton blood agar	20 ml	-	20	100613IF
MacConkey agar	20 ml	Harm Ph	20	100641ZA
CT-SMAC (E.coli 0:157) agar	20 ml	-	20	100683AA
Nutrient agar	20 ml	-	20	100692PA
Standard I nutrient agar	20 ml	-	20	100692ZA
OGYE agar	20 ml	ISO 13681:1995	20	100720ZA
Orangeserum agar	20 ml	-	20	100731ZA
Palcam agar	20 ml	EN ISO 11290-1,11290-2	20	100742ZA
Plate count agar	20 ml	UNE-EN ISO 4833:2003	20	100774ZA
Potato dextrose agar	20 ml	Harm Ph	20	100782ZA
Cetrimide agar	20 ml	Harm Ph	20	100793ZA
Sabouraud 4% dextrose chloramphenicol agar	20 ml	Harm Ph	20	100884CF
Sabouraud 2% chloramphenicol actidione agar	20 ml	Harm Ph	20	100884DA
Sabouraud 4% glucose agar	20 ml	EP, USP	20	100884ZA
Salmonella Shigella agar	20 ml	-	20	100911ZA
Slanetz & Bartley enterococci agar	20 ml	ISO 7899-2:2000	20	100980ZA
TBX agar	20 ml	-	20	101004ZA
TCBS cholera agar	20 ml	-	20	101011ZA
Lactose TTC agar Tergitol-7	20 ml	ISO 9308-1	20	101023ZA
TSA with Cycloheximide	20 ml	-	20	101114AF
TSA tryptic soy agar +5% sheep blood	20 ml	Harm Ph	20	101114IF
Lecithin polysorbate triton x agar	20 ml	-	20	101114SA
TSA	20 ml	Harm Ph	20	101114ZA
TSC agar	20 ml	UNE EN 13401 and UNE EN 26461-2	20	101141AA
VRB agar	20 ml	EP	20	101183ZA
VRBD agar	20 ml	Harm Ph	20	101203ZA
XLD novobiocin agar	20 ml	Harm Ph	20	101241AF
XLD agar	20 ml	Harm EP, USP, JP	20	101241ZF
Chromocult E. coli agar	20 ml	-	20	101274ZA
Rambach® agar	20 ml	-	20	101294ZA
S.P.S. agar	20 ml	-	20	101320ZA
TSN agar	20 ml	-	20	101370ZA
Chocolate agar with supplement	20 ml	-	20	101591ZF
XLT4 agar	20 ml	-	20	101874ZA
RPMI agar (mops glucose)	20 ml	-	20	101938ZF
DG 18 metal agar	20 ml	-	20	102310XF
Bismuth sulfite agar	22 ml	-	20	102770ZA
Listeria selective agar ALOA	20 ml	ISO 11290-1+2	20	102898KA
Colorex Salmonella plus, chromogenic media	20 ml	ISO 6579:2002	20	102918ZA
Baird-Parker RPF agar	20 ml	ISO 6888-2	20	102950IM
XLD agar	20 ml	ISO 6579	20	103542ZF
DEV nutrient agar	20 ml	German Drinking Water Methods	20	103554ZA
YGS medium	20 ml	IFU Method No 12	20	103650YF
Dichlor. Rose Bengal chloramp. agar	20 ml	-	20	103660XF
Sabourand 4% Maltose agar	20 ml	USP, EuPh	20	104744ZA
TLH Standard I agar	20 ml	-	20	111110TI
TSA with natamycin 0,1 g/l agar	20 ml	-	20	111114NF
Wort agar	20 ml	-	20	112321TA
CLED agar	20 ml	-	20	100222ZA
Dermatophytes agar			20	101345ZA

Culture media, ready to use, in bags

Microbiology media in bags are ideally suited for high sample volumes.

- Space saving packaging
- No risk associated with broken glass bottles
- Media can be easily and conveniently dispensed using a gravimetric diluter or peristaltic pump

Description	Filling	Packed	Pk	Cat. No.
Bag connector			1	4992630O
Buffered peptone water	2 l	5x2 l	5	870179ZB
Buffered peptone water	3 l	3×3 l	3	800179ZB
Buffered peptone water	5 l	2×5 l	2	850179ZB
Fraser broth 1/2	2 l	5x2 l	5	870343VB
Fraser broth 1/2	3 l	3×3 l	3	800343VB
Fraser broth 1/2	5 l	2x5 l	2	850343VB
Maximum recovery diluent	3 l	3×3 l	3	803120ZB
Maximum recovery diluent	5 l	2x5 l	2	853120ZB
MLBT	3 l	3×3 l	9 l	802760ZA
Polyvalent univ. neutraliser	5 l	2x5 l	2	852760TA
Tryptone soya broth (TSB)	3 l	3×3 l	3	801121ZB
Tryptone soya broth (TSB)	5 l	1x5 l	2	AX031110
Tryptone soya broth (TSB)	5 l	2x5 l	2	851121ZB

Culture media, MediaBag standbag

Each bag contains a pre-weighed amount of granulated media in a double bagged bag and is irradiated. Just in time enrichment - add sterile water and sample material.
•Space saving, no bottles taking up shelf space
•Long shelf life
•No autoclaving and optimum solubility
•Dust-free work condition
Non selective pre-enrichment broth to increase recovery of bacteria, particularly pathogenic Enterobacteriaceae from foodstuffs. The culture medium complies with ISO 6579:2002.
The lab-blender bag contains 5,75 g of BPW to which 225 ml of sterile water and 25 g (or 25 ml) of sample material is added.
More media are available on request.
The following media are approved for the bag system:

Description	Volume	Pk	Cat. No.
Standbag with BPW, irradiated, ready to use			
MediaBag,1/2 Fraser with supplement	225 ml	100	7304.00225
Aluminium standbag with BPW, irradiated, ready to use			
MediaBag, aluminium standbag with BPW	3375 ml*	50	7601.03375
Large bag with BPW, irradiated, ready to use			
ReadyBag, big bag with BPW	4500 ml*	20	7201.04500
ReadyBag, big bag with BPW	6750 ml*	20	7201.06750
Small bag with BPW, irradiated, ready to use			
ReadyBag, BPW sachets	225 ml*	100	7501.00225
Standbag with BPW, irradiated, ready to use			
ReadyBag, standbag with BPW	900 ml*	100	7301.00900
ReadyBag, standbag with BPW	1125 ml*	100	7301.01125
ReadyBag, standbag with BPW	2250 ml*	100	7301.02250

* Quantity of sterilised water addition for optimal medium used

Culture media, MediaBag system T

The T bag is filled with pre-weighed granulated media. Connect the filter unit, 0,2 µm, aseptically to the tube by using the the connector device. Add water under aseptic conditions into the bag via the filter sytem. Protect the tube end with the red cap.

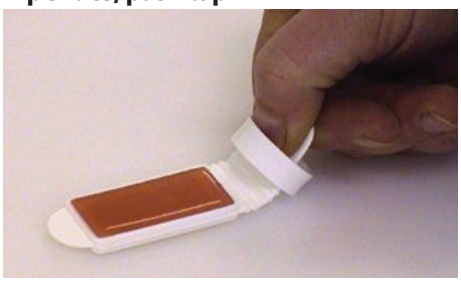
Description	Pk	Cat. No.
Mediabag T (tube-bag) for 3 l BPW (buffered peptone water)	25	7701.03000
Mediabag T for 10 l BPW (buffered peptone water)	20	7701.10000
Mediabag T for 10 l Half Fraser	15	7704.10000
Mediabag T for 10 l maximum recovery diluent	20	7702.10000
Mediabag T for 15 l BPW (buffered peptone water)	15	7701.15000
Mediabag T for 20 l BPW (buffered peptone water)	15	7701.20000
Mediabag T for 20 l maximum recovery diluent	15	7702.20000
Mediabag T for 3 l maximum recovery diluent	25	7702.03000
Mediabag T for 5 l BPW (buffered peptone water)	20	7701.05000
Mediabag T for 5 l maximum recovery diluent	20	7702.05000

Culture media, MediaBag system W

The W bags are folded bags without connectors.

Description	Pk	Cat. No.
Mediabag for 2250 ml 1/2 Fraser broth	100	7504.02250
Mediabag for 225 ml Fraser broth	100	7511.00225
Mediabag for 4500 ml 1/2 Fraser broth	100	7504.04500
Mediabag W for TSB, sterile, 5 kg	1	7812.05000

Dip slides, push cap



Dip slides for microbiological monitoring of surfaces and in liquids. Each slide has media on 2 sides: you can have the same medium or two different media on the two side of the slides; this allows sampling of two surfaces with every single slide. Testing with dip slides is a safe, reliable, economical and fast indicator of the presence of microorganisms. The dip slides with a push cap have a larger contact area.

- Supplied sterile
- Sampling takes only a few seconds
- The results are easily read after just 24-48 hours

Description	Pk	Cat. No.
Dip slides, push cap		
Baird Parker, on both sides	10	535302D
Baird Parker, on both sides	100	535303D
Baird Parker and Total count agar	10	535304D
Baird Parker and Total count agar	100	535305D
Baird Parker and VRBG	10	535308D
Malt extract agar, on both sides	10	535328D
Malt extract agar, on both sides	100	535329D
Nutrient agar and Pseudomonas agar	10	535182R
Nutrient agar and Pseudomonas agar	100	535184T
Nutrient agar with TTC, on both sides	10	535092Q
Nutrient agar with TTC, on both sides	100	535094S
Nutrient agar with TTC and malt extract agar	10	535102B
Nutrient agar with TTC and malt extract agar	100	535104D
Nutrient agar with TTC and neutralisers	10	535309D
Nutrient agar with TTC and neutralisers	100	535310D
Nutrient agar with TTC and rose bengal agar	10	535112D
Nutrient agar with TTC and rose bengal agar	100	535114F

Description	Pk	Cat. No.
Plate count agar	100	535124H
Plate count agar and MacConkey agar	100	535144L
Plate count agar and OGYE agar with neutralisers	100	535134J
Plate count agar and VRBGA	10	535162N
Plate count agar and VRBGA	100	535164P
Plate count agar and VRBGA with neutralisers	10	535172P
Plate count agar MacConkey agar with neutralisers	100	535154N
Plate count agar with neutralisers, on both sides	10	535324D
Plate count agar with neutralisers, on both sides	100	535325D
Plate count agar with TTC, on both sides	10	535311D
Plate count agar with TTC, on both sides	100	535312D
Plate count agar with TTC and MacConkey agar 3	100	535319D
Plate count agar with TTC and MacConkey agar 3	10	535318D
Plate count agar with TTC and MacConkey agar 3 with neutralisers	10	535316D
Plate count agar with TTC and MacConkey agar 3 with neutralisers	100	535317D
Plate count agar with TTC and neutralisers, on both sides	10	535313D
Plate count agar with TTC and neutralisers, on both sides	100	535314D
Pseudomonas CFC and MacConkey 3 agar	10	535322D
Pseudomonas CFC and MacConkey 3 agar	100	535323D
TSA with malt extract agar, on both sides	10	535320D
TSA with neutralisers, on both sides	10	535326D
TSA with plate count agar	10	535122F
TSA with TTC and malt extract agar	100	535321D

Dip slides for diagnosing urinary tract infections

Dip slides for diagnosing urinary tract infections.

- On site test: no need to transport the urine sample
- Inoculated slides can be sent without special precautions to a lab for incubation and interpretation

Description	Pk	Cat. No.
CLED and MacConkey/Enterococcus agar, screw cap	10	535301D
CLED and MacConkey 3 agar, screw cap	10	535300D
CLED and MacConkey agar, push cap	10	535192T
CLED and MacConkey agar, push cap	100	535194V
CLED and MacConkey agar without salt, screw cap	10	535382A

Surface samplers, sponge, SANI-STICK

Designed to collect samples to detect the presence of microbiological contaminations such as *Listeria*, *Salmonella*, *E. coli,* and other food-borne pathogens on almost any surface. Produced in accordance with HACCP, USDA, ACIA and CFIA requirements.

- Ideal for surface sampling
- Allows you to access hard to reach areas
- Easy to handle
- Single-use
- Sterilised by gamma irradiation
- Supplied in 10 packs of 10 units

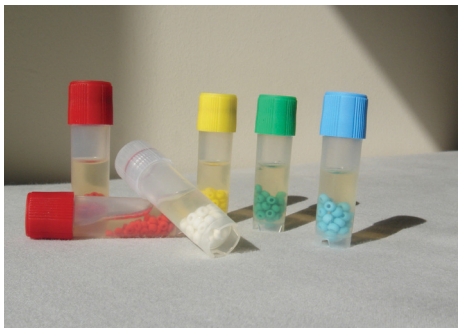
Kits are supplied in a sterile sampling bag with leakproof closure system and are accompanied by a foil-sealed, pre-moistened cellulose sponge, with sterile handling holding 10 ml of the buffer of choice (neutralising buffer, sterile or Dey/Engley neutralising buffer, sterile).

Description	Sterile	Pk	Cat. No.
SANI-STICK, sterile transport bag with sterile surface sampling sponge with handle, pre-moistened with Dey/Engley neutralising buffer	+	100	300-0101
SANI-STICK, sterile transport bag with sterile surface sampling sponge with handle, pre-moistened with neutralising buffer	+	100	300-0102

Swabtube

Description	Pk	Cat. No.
Swabtube, with 5 ml buffered peptone water	100	22.19.012.2212

Preservation system, Cryoinstant



Microbiological laboratories need a simple procedure to maintain important microorganisms rather than repetitive sub-culturing, which results in contaminated cultures, loss of viability and, even more importantly, loss of original characteristics by introducing biochemical and genetic changes. Cryoinstant consists of 25 porous beads in a vial filled with a broth containing glycerol. Microorganisms will bind to the porous surface of the beads. The excess broth is aspirated, then store the vials at temperatures down to –70°C in a freezer.

- Quick and easy to use
- Colour-coded
- Storage down to –70°C
- Quality controlled for fertility and sterility

Cryoinstant is packed in shelf packs of 50 vials of 2 ml.

Description	Pk	Cat. No.
Cryoinstant, blue	50	822072ZA
Cryoinstant, green	50	822073ZA
Cryoinstant, mixed	50	822070ZA
Cryoinstant, natural	50	822075ZA
Cryoinstant, red	50	822071ZA
Cryoinstant, yellow	50	822074ZA

Microscopical diagnostics

VWR has a large range of products many of which are IVD registered for the preparation, mounting and staining of tissues and cells.
This range has recently been extended by the acquisition of Labonord in France. Full details on the products including specifications can be found in the Alphabetical part of this catalogue. Below are the main products in VWR has in the range.

Dyes and stains for Microscopy

Description	Page	Pk	Cat. No.
Bouin's solution GURR®	73, 310	1 l	7000.1000
Bouin's fixative Q PATH® for microscopy	73, 310	5 l	11604901.
Carbol fuchsin Ziehl-Neelsen (strong) GURR® for microscopical staining	97, 310	500 ml	350084R
Elastin stain acc. to Miller	162, 310	500 ml	351154S
Eosin Y (yellowish) GURR® for microscopical staining	171, 310	25 g	341972Q
Eosin Y (yellowish) GURR® for microscopical staining	171, 310	100 g	341973R
Eosin Y (yellowish) GURR® for microscopical staining	171, 310	1 kg	341975T
Eosin Y aqueous solution Q PATH® for microscopy	171, 310	6 x 450 ml	10047001.
Eosin Y aqueous solution Q PATH® for microscopy	171, 310	2,5 l	10047101.
Eosin Y alcoholic Q PATH® for microscopy	171, 310	5 l	00607121.
Eosin Y alcoholic Q PATH® for microscopy	171, 310	6 x 450 ml	10047003.
Eosin Y alcoholic Q PATH® for microscopy	171, 310	2,5 l	10047103.
Basic Fuchsin for microscopy	192, 310	25 g	3525.0025
Basic Fuchsin GURR® for microscopical staining	193, 310	100 g	340325K
Giemsa's staining solution GURR® for microscopical staining	198, 310	500 ml	352603R
Giemsa's stain improved R66 solution GURR® for microscopical staining	198, 310	500 ml	350864X
Giemsa's stain improved R66 solution GURR® for microscopical staining	198, 310	1 l	350865P
Gram's decolourising solution	205, 310	5 l	9761.5000
Gram's decolourising solution	205, 310	5 l	99502.5000
Haemalum (Mayer's) GURR® for microscopical staining	209, 310	500 ml	350604T
Haematoxylin Harris GURR® mercury free	209, 310	1 l	351945S
Harris´s Haematoxylin solution Q PATH® for microscopy	209, 310	6 x 450 ml	10047007.
Harris´s Haematoxylin solution Q PATH® for microscopy	209, 310	2,5 l	10047107.
Harris´s Haematoxylin solution Q PATH® for microscopy	209, 310	5 l	00607131.
Hema - Rapid staining set GURR® for haematology	211, 310	1	351042L
Haematoxylin monohydrate GURR® for microscopical staining	209, 310	25 g	340374T
Haematoxylin solution Gill II Q PATH® for microscopy	209, 310	6 x 450 ml	10047026.
Haematoxylin solution Gill II Q PATH® for microscopy	209, 310	2,5 l	10047126.
Haematoxylin solution Gill III Q PATH® for microscopy	210, 310	6 x 450 ml	10047027.
Haematoxylin solution Gill III Q PATH® for microscopy	210, 310	2,5 l	10047127.
Mayer´s Hematoxylin solution Q PATH® for microscopy	210, 310	6 x 450 ml	10047005.
Mayer´s Hematoxylin solution Q PATH® for microscopy	210, 310	2,5 l	10047105.
Mayer´s Hematoxylin solution Q PATH® for microscopy	210, 310	5 l	00607126.
Leishman's eosin-methylene blue solution in methanol GURR® for microscopical staining	265, 310	500 ml	350224L
Lugol's iodine solution	270, 310	250 ml	351903Y
Malachite green oxalate for microscopy	276, 310	25 g	3076.0025
Malachite green oxalate for microscopy	276, 310	100 g	3076.0100
May Grunwald Eosin methylene blue Q PATH®	280, 310	6 x 450 ml	10047018.
May Grunwald Eosin methylene blue Q PATH®	280, 310	2,5 l	10047118.
May Grunwald's eosin methylene blue solution for microscopical staining	280, 310	1 l	352065W
May Grunwald's eosin methylene blue solution modified for microscopical staining	280, 310	1 l	351355C
May Grunwald's eosin methylene blue solution modified for microscopical staining	280, 310	500 ml	352625P
May Grunwald's eosin methylene blue solution modified for microscopical staining	280, 310	1 l	352622M
Methyl blue TECHNICAL	289, 310	100 g	34015.182
Methylene blue for microscopy	290, 310	25 g	3470.0025
Methylene blue for microscopy	290, 310	100 g	3470.0100
Neutral red GURR® for microscopical staining	310, 320	25 g	340564A
Nuclear Fast Red GURR® for microscopical staining	310, 329	25 g	342094W
Orcein (synthetic) GURR® for microscopical staining	310, 332	25 g	342102F
Papanicolaou's solution (OG 6) Q PATH® for microscopy	310, 337	6 x 450 ml	10047010.
Papanicolaou's solution (OG 6) Q PATH® for microscopy	310, 337	2,5 l	10047110.
Papanicolaou's solution (OG 6) Q PATH® for microscopy	310, 337	5 l	00607136.
Papanicolaou's solution EA 50 Q PATH® for microscopy	310, 337	6 x 450 ml	10047011.
Papanicolaou's solution EA 50 Q PATH® for microscopy	310, 337	2,5 l	10047111.
Papanicolaou's solution EA 50 Q PATH® for microscopy	310, 337	5 l	00607141.
Papanicolaou's staining solution Orange G (EA 50) GURR® for microscopical staining	310, 337	1 l	351695T
Papanicolaou's staining solution Orange G (OG 6) GURR® for microscopical staining	310, 337	1 l	350405X

Description	Page	Pk	Cat. No.
Periodic acid solution Q PATH® for microscopy	311, 349	6 x 450 ml	10047024.
Phloxine B 0.1% Q PATH® for microscopy	311, 362	1 l	10047229.
Saffron Powder Q PATH®	311, 413	10 g	11507737.
Saffron alcoholic solution Q PATH® for microscopy	311, 414	6 x 450 ml	10047028.
Saffron strands Q PATH®	311, 413	10 g	11507736.
Schiff's reagent (Feulgen stain) for staining acc. to Feulgen	311, 416	500 ml	351204L
Schiff´s staining solution Q PATH® for microscopy	311, 416	6 x 450 ml	10047025.
Shorr staining solution Q PATH® for microscopy	311, 417	6 x 450 ml	10047013.
Shorr staining solution Q PATH® for microscopy	311, 417	2,5 l	10047113.
Wright's Eosin-Methylene blue GURR® for microscopical staining	311, 543	25 g	340804U

Fixatives for microscopy

Description	Page	Pk	Cat. No.
AFA histological fixative Q PATH®	218, 311	32 x 150 ml	AFA0150AF59001
AFA histological fixative Q PATH®	218, 311	50 x 60 ml	AFA0060AF59001
AFA histological fixative Q PATH®	218, 311	102 x 20 ml	AFA0020AF59001
Cryolab freezing aerosol Q PATH®	127, 311	6 x 250 ml	00528200.
Cryolab freezing aerosol Q PATH®	127, 311	12 x 650 ml	13328202.
Cytofix, cell adhesive Q PATH® for microscopy	131, 311	5 l	00656746.
Easyfix cytological fixative Q PATH®	159, 311	50 x 60 ml	EAS0060CF59001
Easyfix cytological fixative Q PATH®	159, 311	100 x 20 ml	EAS0020AF59001
Ethanol 50% fixative Q PATH® for microscopy	175, 311	32 x 150 ml	ALC0150AF59001
Ethanol 50% fixative Q PATH® for microscopy	175, 311	50 x 60 ml	ALC0060AF59001
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent	43, 187, 311	1 l	20909.290
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent	43, 187, 311	2,5 l	20909.330
Formaldehyde 36% (39% w/v) AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent	43, 187, 311	5 l	20909.368
Formaldehyde 36% (39% w/v) GPR RECTAPUR®	187, 311	1 l	20910.294
Formaldehyde 36% (39% w/v) GPR RECTAPUR®	187, 311	2,5 l	20910.328
Formaldehyde 36% (39% w/v) GPR RECTAPUR®	187, 311	2,5 l	20910.330
Formaldehyde 36% (39% w/v) GPR RECTAPUR®	187, 311	5 l	20910.363
Formaldehyde 36% (39% w/v) GPR RECTAPUR®	187, 311	20 l	20910.443
Formaldehyde 35% TECHNICAL	187, 311	5 l	90240.5000
Formaldehyde 35% TECHNICAL	187, 311	10 l	90240.9010
Formaldehyde 35% TECHNICAL	187, 311	25 l	90240.9025
Formaldehyde 30% Q PATH®	188, 311	5 l	11699031.
Formaldehyde 7.5%, buffered (pH 7.0 ± 0.2) TECHNICAL	188, 311	1 l	5534.1000
Formaldehyde 7.5%, buffered (pH 7.0 ± 0.2) TECHNICAL	188, 311	10 l	5534.9010
Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL	189, 311	1 l	9713.1000
Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL	189, 311	5 l	9713.5000
Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL	189, 311	10 l	9713.6010
Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL	189, 311	10 l	9713.9010
Formaldehyde 4% (= 10% Formalin solution), buffered (pH 7.0 ± 0.2) TECHNICAL	189, 311	25 l	9713.9025
Formaldehyde 4% buffered Q PATH®	189, 311	32 x 80 ml	FOR0150AF59001
Formaldehyde 4% buffered Q PATH®	189, 311	50 x 30 ml	FOR0070AF59001
Formaldehyde 4% buffered Q PATH®	189, 311	50 x 25 ml	FOR0060AF59001
Formaldehyde 4% buffered Q PATH®	189, 311	102 x 5 ml	FOR0020AF59001
Formaldehyde 4% buffered Q PATH®	189, 311	24 x 500 ml	10099464.
Formaldehyde 4% buffered Q PATH®	189, 311	14 x 1 l	10099465.
Formaldehyde 4% buffered Q PATH®	189, 311	1 l	11699455.
Formaldehyde 4% buffered Q PATH®	189, 311	5 l	11699404.
Formaldehyde 4% buffered Q PATH®	189, 311	10 l	11699408.
Formaldehyde 4% buffered Q PATH®	189, 311	10 l	FOR010LAF59001
Formaldehyde 4% buffered Q PATH®	189, 311	16 x 1 l	10099474.
Formaldehyde 4% buffered Q PATH®	189, 311	12 x 3 l	10099473.
Formaldehyde 4% buffered Q PATH®	189, 311	12 x 5 l	10099476.
Formaldehyde 4% buffered (pink) Q PATH®	189, 311	32 x 80 ml	FOR0153AF59001
Formaldehyde 4% buffered (pink) Q PATH®	189, 311	50 x 25 ml	FOR0063AF59001
Formaldehyde 4% buffered (pink) Q PATH®	189, 311	102 x 5 ml	FOR0023AF59001
Formaldehyde neutralizer Q PATH®	189, 311	5 kg	00699030.
Formalin acetic acid Q PATH®	190, 311	50 x 5 ml	FOA0060AF59001
Formalin acetic acid Q PATH®	190, 311	5 l	11699025.
Freeze gel (Glue) Q PATH®	192, 311	125 ml	07111245.
Histological fixative - Formalin neutral sodium salt buffered pH 7.0 (25°C) GURR®	217, 311	25 l	351638K
Histological Fixative (Formal saline) GURR®	218, 311	5 l	361367L

Description	Page	Pk	Cat. No.
Histological Fixative (Formal saline) GURR®	218, 312	25 l	361368M
A.F.A. Histological Fixative containing Eosin Y GURR®	218, 312	5 l	81024.360
Labofix Q PATH® for microscopy	256, 312	6 x 100 ml	13356770.
Labofix Q PATH®	256, 312	12 x 200 ml	00556760.
Stick on (Cell adhesive) Q PATH® for microscopy	312, 482	500 ml	11047600.

Embedding media

Description	Page	Pk	Cat. No.
OCT Mounting media GURR®	312, 330	125 ml	361603E
OCT mounting medium Q PATH®	312, 330	125 ml	00411243.
Wax Cyto-paraffin 56-58°C MICROCOLOR® for histology	312, 338	1 kg	26177.290
Paraffin, solidification point 56-58°C, in pastille form GURR®	312, 338	10 kg	361077E
Wax Paramat extra, in pastille form GURR® for histology	312, 338	2,5 kg	361334C
Wax Paramat extra, in pastille form GURR® for histology	312, 338	10 kg	361336E
Wax Paramat extra, in pastille form GURR® for histology	312, 338	25 kg	361337F
Wax Paramat, in pastille form GURR® for histology	312, 338	2,5 kg	361144V
Wax Paramat, in pastille form GURR® for histology	312, 338	10 kg	361147B
Wax Paramat, in pastille form GURR® for histology	312, 338	25 kg	361148C
Paraffin Q PATH® for microscopy	312, 338	8 x 1 kg	10048500.
Paraffin Q PATH® for microscopy	312, 338	2,5 kg	10048501.
Paraffin Q PATH® for microscopy	312, 338	8 kg	10048502.

Mounting media

Description	Page	Pk	Cat. No.
Coverquick 1000, mounting medium Q PATH®	126, 312	500 ml	05547528.
Coverquick 2000 mounting media Q PATH®	126, 312	500 ml	05547530.
Coverquick 2000 mounting media Q PATH®	126, 312	1 l	05547531.
Coverquick 3000 mounting media Q PATH®	126, 312	500 ml	05547537.
Coverquick 4000 mounting media Q PATH®	126, 312	500 ml	05547539.
Coverquick 4000 mounting media Q PATH®	126, 312	1 l	05547540.
Fibrowax (formulation Raymond A. Lamb), in pastille form	184, 312	10 kg	361427G
Isomount 2000 mounting media Q PATH®	254, 312	500 ml	05547535.
Isomount 2000 mounting media Q PATH®	254, 312	1 l	05547536.
Safemount mounting media Q PATH®	312, 413	500 ml	00647520.

Special solvents for Microscopy

Description	Page	Pk	Cat. No.
Safesolv Q Path®	312, 413	5 l	00699464.
Clean-Lab Q Path® (Alternative solvent)	114, 312	6 x 100 ml	10047400.

Adjuncts for Microscopy

Description	Page	Pk	Cat. No.
Green ink Q PATH® for microscopy	245, 312	30 ml	01816201.
Yellow ink Q PATH® for microscopy	245, 312	30 ml	01816202.
Blue ink Q PATH® for microscopy	245, 312	30 ml	01816203.
Red ink Q PATH® for microscopy	245, 312	30 ml	01816204.
Black ink Q PATH®	245, 312	40 ml	01816200.
Buffer pH 6.80 (20°C), tablets GURR® for preparing buffer solution according to Weise, for staining blood smears	82, 312	100 Tab.	363112P
Buffer pH 6.80 (20°C) ± 0.1 pH-units, tablets GURR® for preparation of microscopical staining solutions	82, 312	50 Tab.	331932D
Buffer pH 7.20 (20°C) ± 0.1 pH-units, tablets GURR® for preparation of microscopical staining solutions	82, 312	50 Tab.	331942F
Decalcifier DC3 rapid-acting Q PATH®	133, 312	2,5 l	09128300.
Glycerin albumen GURR®	202, 312	100 ml	361002Y
Glycerin albumen GURR®	202, 312	500 ml	361004K
Microil Immersion oil GURR®	239, 312	100 ml	361042Q
Mollifex® for microscopy	312, 314	500 ml	360584X
Cryo-Jet Lamb's freezing aerosol	312, 328	275 ml	361852T

Microil Immersion oil Gurr®

See Immersion oil (contains dibutyl phthalate and chloroparaffin) p.239

Mildly alkaline and liquid cleaning concentrate, with activated chlorine

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 1814
ADR 8,III
Density: 1.3 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Teepol® Bleach

A general purpose, 4.5% available chlorine solution of sodium hypochlorite. Destroy 99% of all germs, bacteria, fungi and viruses - effective against HIV and Hepatitis A. For use in general sanitising and disinfecting applications.

Cat. No.	Pk	Pack type
331827D	20 l	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Milk sugar

See Lactose monohydrate p.260

Non-fat milk powder (skim milk)

CAS 999999-99-4
EINECS: 310-127-6
Storage Temperature: Ambient temperature

Milk powder, non-fat (skim milk), proteomics grade

10 g per pack.
Moisture (LOD)..... 4 %

Cat. No.	Pk	Pack type
M203-10G-10PK	100 g	Set of items

Mineral separation reagents

Bromoform AnalaR NORMAPUR® analytical reagent, for mineralogy..... p.75
Diiodomethane AnalaR NORMAPUR® analytical reagent, for mineralogy . p.147

Mineralisation catalyst KJELTABS

Kjeltab Tablets are a range of products supplied by Thompson & Capper for nitrogen analysis in the food industry

Kjeldahl catalyst (Cu catalyst)

Warning
H319 H315 H410
P280 P273 P302+P352 P305+P351+P338
Storage Temperature: Ambient temperature

Mineralisation catalyst CK KJELTABS, tablets

Cat. No.	Pk	Pack type
705-0516	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Mineralisation catalyst CX KJELTABS, tablets

Cat. No.	Pk	Pack type
705-0515	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Kjeldahl catalyst (Cu-TiO2 catalyst)

Storage Temperature: Ambient temperature

Mineralisation catalyst CT KJELTABS, tablets

Kjeldahl catalyst (Cu-TiO_2 catalyst)

Cat. No.	Pk	Pack type
705-0518	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Mineralisation catalyst CTQ KJELTABS, tablets

Kjeldahl catalyst (Cu-TiO_2 catalyst)

Cat. No.	Pk	Pack type
705-0546	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Kjeldahl catalyst (Se catalyst in K2SO4)

Mineralisation catalyst KS KJELTABS, tablets

Kjeldahl catalyst (Se catalyst in K_2SO_4)

Cat. No.	Pk	Pack type
705-0549	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Mineralisation catalyst AUTO KJELTABS, tablets

Kjeldahl catalyst (Se catalyst in K_2SO_4)

Cat. No.	Pk	Pack type
705-0545	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Mineralisation catalyst S KJELTABS, tablets

Kjeldahl catalyst (Se catalyst in K_2SO_4)

Cat. No.	Pk	Pack type
705-0510	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Mineralisation catalyst ST KJELTABS, tablets

Kjeldahl catalyst (Se catalyst in K_2SO_4)

Cat. No.	Pk	Pack type
705-0511	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Kjeldahl catalyst (Se-Cu catalyst)

Mineralisation catalyst KW KJELTABS, tablets

Cat. No.	Pk	Pack type
705-0521	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Kjeldahl catalyst (Se catalyst in Na2SO4)

Warning
H319 H315
P280 P302+P352 P305+P351+P338
UN: 3283
ADR 6.1,III

Mineralisation catalyst NAS KJELTABS, tablets

Kjeldahl catalyst (Se catalyst in Na_2SO_4)

Cat. No.	Pk	Pack type
705-0547	1.000 Tab.	Iron box
330666A	1.000 Tab.	Aluminium tube

This product is not available in all countries. Please check with your local VWR International office or supplier.

Antifoam (Polydimethylsiloxane 3% in sodium sulphate)

Mineralisation catalyst S ANTIFOAM KJELTABS, tablets

Cat. No.	Pk	Pack type
705-0543	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Kjeldahl catalyst acc. to Wieninger

Mineralisation catalyst W KJELTABS, tablets

Cat. No.	Pk	Pack type
705-0513	1.000 Tab.	Iron box

This product is not available in all countries. Please check with your local VWR International office or supplier.

Minium

See Lead (II,IV) oxide p.265

Mitomycin C

Danger
H350 H300+H310+H330 H319 H335 H315
P201 P281 P284 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 50-07-7
EINECS: 200-008-6
UN: 2811
ADR 6.1,II

$C_{15}H_{18}N_4O_5$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Mitomycin C, ultrapure

Inhibits nucleic acid synthesis. Recommended working concentration: 25 µg/ml.
Solubility (1 vial/4ml Water) ..... PASS

Cat. No.	Pk	Pack type
J594-2MG	2 mg	Vial

Molecular sieve A3 (0.3 nm, 3 Å)

CAS 308080-99-1

Molecular sieve A3 (0.3 nm, 3 Å), extruders TECHNICAL 1.6 mm

Adsorption of molecules smaller than 3 µm in diameter
Identification ..... Passes test

Cat. No.	Pk	Pack type
28463.292	1 kg	Plastic bottle for solids

Molecular sieve A4 (0.4 nm, 4 Å)

CAS 70955-01-0
Density: 1.1 to 2.2 g/cm³ (20 °C)

Molecular sieve A4 (0.4 nm, 4 Å), extruders TECHNICAL 1.6 mm

Adsorption of molecules smaller than 4 µm in diameter
Identification ..... Passes test

Cat. No.	Pk	Pack type
28464.295	1 kg	Plastic bottle for solids
28464.364	5 kg	Bucket (Plastic)

Molecular sieve A5 (0.5 nm, 5 Å)

CAS 69912-79-4

Molecular sieve A5 (0.5 nm, 5 Å), extruders TECHNICAL 1.6 mm

Adsorption of molecules smaller than 5 µm in diameter
Identification ..... Passes test

Cat. No.	Pk	Pack type
28465.298	1 kg	Plastic bottle for solids

Mollifex®

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

Mollifex® for microscopy

For softening tissues embedded in paraffin Pamphlet describing the uses of `Mollifex` may be obtained on request
Density (d 20 °C/ 4 °C) ..... 0.92 to 0.94

Cat. No.	Pk	Pack type
360584X	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Molybdate-Vanadate Reag. Ph. Eur.

NEW Molybdate-Vanadate Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85897.180	200 ml	Plastic bottle

Molybdenum standard solution, 10,000 mg/l Mo in ammonium hydroxide solution (max. 1%)

CAS 7439-98-7
EINECS: 231-107-2

Mo
M.W. 95.94 g/mol
Storage Temperature: Ambient temperature

Molybdenum standard solution, 10,000 mg/l Mo in ammonium hydroxide solution (max. 1%) (from $(NH_4)_2MoO_4$) ARISTAR® standard for ICP

$(NH_4)_2MoO_4$ in HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455692P	100 ml	Plastic bottle

Supplied with certificate of analysis.

Molybdenum standard solution, 1,000 mg/l Mo in ammonium hydroxide solution (max. 1%)

CAS 7439-98-7
EINECS: 231-107-2

Mo
M.W. 95.94 g/mol
Storage Temperature: Ambient temperature

Molybdenum standard solution, 1,000 mg/l Mo in ammonium hydroxide solution (max. 1%) (from $(NH_4)_2MoO_4$) ARISTAR® standard for ICP

$(NH_4)_2MoO_4$ in HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455682N	100 ml	Plastic bottle
455684P	500 ml	Plastic bottle

Supplied with certificate of analysis.

Molybdenum standard solution, 1,000 mg/l Mo in water

CAS 7439-98-7
EINECS: 231-107-2

Mo
M.W. 95.94 g/mol
Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Molybdenum standard solution, 1,000 mg/l Mo in water AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86692.180	100 ml	Plastic bottle
86692.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Molybdic acid, sodium salt dihydrate

See Sodium molybdate(VI) dihydrate p.451

Molybdophosphoric acid hydrate

See Dodecamolybdophosphoric acid hydrate p.157

Monoethanolamine

See Ethanolamine p.177

(±)-Monopropylene glycol methyl ether

See (±)-1-Methoxy-2-propanol p.288

MOPS (γ-(N-Morpholino)propanesulphonic acid)

3-(N-Morpholino)propanesulphonic acid

CAS 1132-61-2
EINECS: 214-478-5
Flash Pt: 110 °C (closed cup)

$C_7H_{15}NO_4S$
M.W. 209.27 g/mol
Melting Pt: Min. 250 °C
Storage Temperature: Ambient temperature

MOPS (γ-(N-Morpholino)propanesulphonic acid) Electran® Molecular biology grade

Assay	Min. 99 %
Appearance	White crystalline powder
Identification	Passes test
DNases (exo- and endonucleases)	Not detected
RNases	Not detected
Proteases	Not detected
pH (0.1 mol/l)	3.5 to 4.5
Absorbance (260 nm) (0.1 mol/l)	Max. 0.05
Absorbance (280 nm) (0.1 mol/l)	Max. 0.05
Heavy metals (as Pb)	Max. 0.0005 %
Fe (Iron)	Max. 0.0001 %
Pb (Lead)	Max. 0.001 %

Cat. No.	Pk	Pack type
443832T	100 g	Plastic bottle

MOPS (γ-(N-Morpholino)propanesulphonic acid), ultrapure

Abs.@260 nm (0.1 M, Water)	0.05
Abs.@280 nm (0.1 M, Water)	0.05
DNase	NONE
Identification	PASS
Melting Point	277 - 280 °C
pKa @ 25 °C	7.0 - 7.4
Protease	NONE
Purity	99.0 %
RNase	NONE

Cat. No.	Pk	Pack type
0670-100G	100 g	Glass bottle
0670-250G	250 g	Glass bottle
0670-500G	500 g	Glass bottle

MOPS (γ-(N-Morpholino)propanesulphonic acid), proteomics grade

Abs.@280 nm (0.1 M, Water)	0.05
DNase	NONE
Identification	PASS
Melting Point	277 - 280 °C
pKa @ 25 °C	7.0 - 7.4
Protease	NONE
Purity	99.0 %
RNase	NONE

Cat. No.	Pk	Pack type
M214-100G	100 g	Glass bottle

MOPS buffer solid for 10x concentrated solution

Storage Temperature: Ambient temperature

MOPS buffer solid for 10x concentrated solution for biotechnology

A zwitterionic buffer used as a running buffer for denaturing agarose gel electrophoresis of RNA. Ready-Pack™ (a foil pouch containing sufficient material to prepare 1 litre of 10x concentrate).

DNase (1X, Water) ..... NONE
pH (1X, Water) @25 °C ..... 6.8 - 7.2
Protease (1X, Water) ..... NONE
RNase (1X, Water) ..... NONE
Solubility (10X, Water) ..... PASS

Cat. No.	Pk	Pack type
K946-1PK	1	Set of items

MOPS buffer solution 10x concentrate

Storage Temperature: Ambient temperature

MOPS buffer solution 10x concentrate for biotechnology

A zwitterionic buffer used as a running buffer for denaturing agarose gel electrophoresis of RNA.

DNase ..... NONE
pH @25 °C ..... 6.8 - 7.2
RNase ..... NONE

Cat. No.	Pk	Pack type
E526-100ML	100 ml	Glass bottle
E526-500ML	500 ml	Glass bottle

MOPS-SDS buffer 20X

MOPS-SDS buffer 20X, ultrapure

Useful for high resolution of proteins on neutral pH SDS-PAGE gels.

pH (1X, Water) @25°C ..... 7.4 - 8.0

Cat. No.	Pk	Pack type
K855-500ML	500 ml	Plastic bottle

MOPS-Na

3-(N-Morpholino)propanesulphonic acid sodium salt , Sodium 4-morpholin-1-ylpropylsulphonate , MOPS sodium salt

CAS 71119-22-7
EINECS: 428-420-3
$C_7H_{14}NNaO_4S$
M.W. 217.22 g/mol
Storage Temperature: Ambient temperature

MOPS-Na, high purity

A zwitterionic buffer used as a running buffer for denaturing agarose gel electrophoresis of RNA.

Abs.@260 nm (0.1 M, Water) 0.03
DNase ..... NONE
Heavy Metals ..... 0.005 %
Identification (IR) ..... PASS
Loss on Drying ..... 1.0 %
pH (0.1 M, Water) @25 °C ..... 10.0 - 11.0
pKa @20 °C ..... 7.0 - 7.4
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (0.1M, Water) ..... PASS

Cat. No.	Pk	Pack type
E413-25G	25 g	Plastic bottle for solids
E413-250G	250 g	Plastic bottle for solids

MOPS-Na, proteomics grade

A zwitterionic buffer used to prepare running buffer for high resolution of proteins on neutral pH SDS-PAGE gels.

Abs.@260 nm (0.1 M, Water) 0.03
DNase ..... NONE
Heavy Metals ..... 0.005 %
Identification (IR) ..... PASS
Loss on Drying ..... 1.0 %
pH (0.1 M, Water) @25 °C ..... 10.0 - 11.0
pKa (20 °C) ..... 7.0 - 7.4
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (0.1M, Water) ..... PASS

Cat. No.	Pk	Pack type
M215-100G	100 g	Plastic bottle for solids

MOPSO (3-(4-Morpholino)-2-hydroxypropanesulphonic acid)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 68399-77-9
EINECS: 269-989-6
$C_7H_{15}NO_5S$
Storage Temperature: Ambient temperature

MOPSO (3-(4-Morpholino)-2-hydroxypropanesulphonic acid), ultrapure

Melting Point ..... 276 - 284 °C
Moisture (KF) ..... 1 %
Purity ..... 98 %
Solubility (33.3%, Water) ..... PASS

Cat. No.	Pk	Pack type
J589-100G	100 g	Plastic bottle for solids

MOPSO sodium salt (3-(4-Morpholino)-2-hydroxypropanesulphonic acid sodium salt)

CAS 79803-73-9
$C_7H_{14}NNaO_5S$
Storage Temperature: Ambient temperature

MOPSO sodium salt (3-(4-Morpholino)-2-hydroxypropanesulphonic acid sodium salt) for biotechnology

Heavy Metals ..... 0.0005 %
Moisture (KF) ..... 1 %
pH (1 %, Water) @25 °C ..... 8.9 - 9.7
Purity (Anhydrous) ..... 99 %
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
J563-100G	100 g	Plastic bottle for solids

Morpholine

Danger
H226 H302+H312+H332 H314
P210 P243 P280 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 110-91-8
Index 613-028-00-9
EINECS: 203-815-1
UN: 2054
ADR 8,I
Flash Pt: 38 °C

C_4H_9NO
M.W. 87.12 g/mol
Density: 1 g/cm³ (20 °C)
Boiling Pt: 128.9 °C (1013 hPa)
Melting Pt: -5 °C
Storage Temperature: Ambient temperature

Morpholine TECHNICAL

n 20/D ..... 1.451 to 1.456

Cat. No.	Pk	Pack type
25703.268	500 ml	Glass bottle

β-(N-Morpholino)ethanesulphonic acid

See MES (β-(N-Morpholino)ethanesulphonic acid)..... p.284

2-(N-Morpholino)ethanesulphonic acid

See MES (β-(N-Morpholino)ethanesulphonic acid)..... p.284

γ-(N-Morpholino)propanesulphonic acid

See MOPS (γ-(N-Morpholino)propanesulphonic acid) p.315

3-(N-Morpholino)propanesulphonic acid

See MOPS (γ-(N-Morpholino)propanesulphonic acid) p.315

Mounting media

Isomount 2000 mounting media Q PATH®..... p.254
Freeze gel (Glue) Q PATH®..... p.192
Safemount mounting media Q PATH®..... p.413

MRS Agar

See Microbiology

MTBE

See tert-Butyl methyl ether p.88

Mueller Hinton Agar

See Microbiology

Muller Kauffmann MKTT broth

See Microbiology

Murexide

Ammonium 5-(2,4,6-trioxoperhydropyrimidin-5-ylideneamino)barbiturate , Ammonium purpurate , Purpuric acid ammonium salt

CAS 3051-09-0
EINECS: 221-266-6

$C_8H_8N_6O_6$
M.W. 284.19 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Murexide analytical reagent

Suited for complexometry indicator..... Passes test

Cat. No.	Pk	Pack type
25717.120	10 g	Plastic bottle for solids

Mycophenolic acid

Warning
H302
P280 P302+P352 P304+P340 P305+P351+P338 P310

CAS 24280-93-1
EINECS: 246-119-3

$C_{17}H_{20}O_6$
M.W. 320.34 g/mol
Storage Temperature: 2 - 8°C

VWR CHEMICALS Mycophenolic acid, ultrapure

Inhibits inosine monophosphate dehydrogenase. Recommended working concentration: 25 µg/ml.

Melting Point..... 140 - 143 °C
Purity (HPLC) ..... 95 %
Solubility (1%, 0.1N NaOH) ..... PASS

Cat. No.	Pk	Pack type
J592-100MG	100 mg	Glass bottle

Nalidixic acid

Danger
H351 H340 H319 H335 H315 H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 389-08-2
EINECS: 206-864-7

$C_{12}H_{12}N_2O_3$
Storage Temperature: Ambient temperature

VWR CHEMICALS Nalidixic acid, high purity

A bactericidal agent that inhibits DNA gyrase activity. Recommended working concentration: 15 µg/ml.

Heavy Metals (as Pb) ..... 0.002 %
Loss on Drying ..... 0.5 %
Melting Point ..... 225 - 231 °C
Purity ..... 98 %
Residue on Ignition ..... 0.2 %

Cat. No.	Pk	Pack type
0677-50G	50 g	Plastic bottle for solids
0677-250G	250 g	Plastic bottle for solids

Naphthalene

Warning
H351 H302 H410
P201 P281 P273 P309+P311

CAS 91-20-3
Index 601-052-00-2
EINECS: 202-049-5
UN: 1334
ADR 4.1,III
Flash Pt: 79 °C

$C_{10}H_8$
M.W. 128.17 g/mol
Density: 1.145 g/cm³ (20 °C)
Boiling Pt: 218 °C (1013 hPa)
Melting Pt: 79 to 82 °C
Storage Temperature: Ambient temperature

Naphthalene, extra pure

Cat. No.	Pk	Pack type
123092C	100 mg	Glass ampoule

Naphthalene GPR RECTAPUR®

Assay ..... Min. 99 %
Crystallisation point ..... 79 to 81 °C
Ignition residue (SO_4) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
25751.297	1 kg	Plastic bottle for solids

Naphthol AS-MX phosphate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1596-56-1
EINECS: 216-480-1

$C_{19}H_{18}NO_5P$
Storage Temperature: -20°C

VWR CHEMICALS Naphthol AS-MX phosphate, high purity

Histochemical substrate commonly used in conjunction with Fast Red TR for immunohistology, immunoblotting, and dot blot applications.

Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0460-5G	5 g	Glass bottle

1-Naphtholbenzeine

Bis(4-hydroxy-1-naphthyl)phenylmethanol , 4-(α-(4-Hydroxy-1-naphthyl)benzylidene)naphthalen-1(4H)-one , p-Naphtholbenzeine , α-Naphtholbenzeine , 4-Hydroxy-α-(4-hydroxynaphthyl)-α-phenylnaphthalene-1-methanol

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 145-50-6
EINECS: 205-656-3

$C_{27}H_{18}O_2$
M.W. 374.44 g/mol
Melting Pt: 243 to 245 °C
Storage Temperature: Ambient temperature

1-Naphtholbenzeine analytical reagent

Suited for acid-base indicator ..... Passes test

Cat. No.	Pk	Pack type
25768.136	25 g	Glass bottle

1-Naphtholbenzeine in acetic acid

CAS 145-50-6
EINECS: 205-656-3
UN: 2789
ADR 8,II

$C_{27}H_{18}O_2$
M.W. 374.44 g/mol

1-Naphtholbenzeine 0.2% in acetic acid Reag. Ph. Eur. 1057601

Cat. No.	Pk	Pack type
87874.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

p-Naphtholbenzeine

See 1-Naphtholbenzeine p.318

α-Naphtholbenzeine

See 1-Naphtholbenzeine p.318

Natural Black 1

See Haematoxylin monohydrate p.209

Natural Red 28

See Orcein p.332

NBT

See Nitro blue tetrazolium chloride (NBT) p.327

Neocuproine hydrochloride monohydrate

2,9-Dimethyl-1,10-phenanthroline hydrochloride monohydrate ,
2,9-Dimethyl-1,10-phenanthrolinium chloride monohydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 303136-82-5
EINECS: 230-732-8

$C_{14}H_{13}ClN_2.1H_2O$
M.W. 262.74 g/mol
Storage Temperature: Ambient temperature

Neocuproine hydrochloride monohydrate analytical reagent

Identification ..... Passes test

Cat. No.	Pk	Pack type
23519.100	5 g	Glass bottle

Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-00-8
EINECS: 231-109-3
UN: 3264
ADR 8,III

Nd
M.W. 144.24 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid (from Nd_2O_3) ARISTAR® standard for ICP

Nd_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455702A	100 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86695.180	100 ml	Plastic bottle
86695.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Neomycin sulphate

Neomycin sulphate salt

CAS 1405-10-3
EINECS: 215-773-1
Storage Temperature: Ambient temperature

VWR CHEMICALS Neomycin sulphate for tissue culture, γ-irradiated

Aseptic, gamma-irradiated tissue culture tested. Final concentration of 10 mg/ml when reconstituted in 20 ml sterile water.

Expiration Date ..... REPORT
pH (3.3 %, Water) @25 °C ..... 5.0 - 7.5
Potency (Anhydrous) ..... 600 mcg/mg
Solubility (Vial Contents, 20 ml Water) ..... PASS
Sterile (Gamma-Irradiated) ..... PASS
USP Grade Neomycin sulphate ..... PASS

Cat. No.	Pk	Pack type
E482-20ML	20 ml	Vial

VWR CHEMICALS Neomycin sulphate

Antibiotic. Causes miscoding during protein synthesis. Recommended working concentration: 50 µg/ml.

Expiration Date ..... REPORT
Identification ..... PASS
Loss on Drying (%) ..... ≤ 8.0
pH (3.3%, Water) @ 25 °C ..... 5.0 – 7.5
Potency (Anhydrous) (mcg/mg) ..... ≥ 600
Potency (as is) (mcg/mg) ..... REPORT

Cat. No.	Pk	Pack type
0558-EU-25G	25 g	Plastic bottle for solids

Nessler's reagent

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310
UN: 2922
ADR 8,II
Density: 1.2 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)

Nessler's reagent for determination of ammonia and ammonium salts

Sensitivity ..... Passes test
Conforms to BDH 19086 ..... Passes test

Cat. No.	Pk	Pack type
31074.265	500 ml	Plastic bottle

Nessler's Reagent Solution A (Potassium tetraiodomercurate 26% w/v aqueous solution)

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 7783-33-7
EINECS: 231-990-4
UN: 1824
ADR 8,II

K_2HgI_4
M.W. 786.4 g/mol

Potassium tetra iodo mercurate (II) reagent, solution A (potassium tetra iodo mercurate (II) 26% aqueous solution) Reag. Ph. Eur. for determination of ammonia and ammonium salts

Cat. No.	Pk	Pack type
87709.200	200 ml	Plastic bottle for solids

Neutral red

N8,N8,3-Trimethyl-2,8-phenazinediamine monohydrochloride , Basic Red 5

CAS 553-24-2
EINECS: 209-035-8

$C_{15}H_{17}ClN_4$
M.W. 288.78 g/mol
Melting Pt: 290 °C
Storage Temperature: Ambient temperature

Neutral red GURR® for microscopical staining

IVD

Dye content (spectrophotometric) ..... Min. 90 %
Identity (UV/VIS-Spectrum) ..... Passes test
Absorption maximum λ max (ethanol 50 %) ..... 540 to 543 nm
Spec. Absorptivity A 1%/1cm (λmax; 0.005 g/l; ethanol 50 %) ..... 1420 to 1610
TLC-Test ..... Passes test
Loss on drying (110 °C) ..... Max. 12 %
Suitability for microscopy ..... Passes test

Cat. No.	Pk	Pack type
340564A	25 g	Glass bottle
340565B	100 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Nickel standard solution, 10,000 mg/l Ni in dil. nitric acid

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 7440-02-0
EINECS: 231-111-4
UN: 3264
ADR 8,III

Ni
M.W. 58.69 g/mol
Storage Temperature: Ambient temperature

Nickel standard solution, 10,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP

Ni in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455732G	100 ml	Plastic bottle
455734Y	500 ml	Plastic bottle

Supplied with certificate of analysis.

Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid

Danger
H350i H360D H373 H314
P201 P281 P301+P330+P331 P304+P340 P309+P310

CAS 7440-02-0
EINECS: 231-111-4
UN: 3264
ADR 8,III

Ni
M.W. 58.69 g/mol
Storage Temperature: Ambient temperature

Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP-MS

Ni in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456832N	100 ml	Plastic bottle

Supplied with certificate of analysis.

Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP

(Ni in HNO_3)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455722E	100 ml	Plastic bottle
455724G	500 ml	Plastic bottle

Supplied with certificate of analysis.

Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86696.180	100 ml	Plastic bottle
86696.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Nickel (II) chloride hexahydrate

Nickel dichloride hexahydrate

Danger
H350i H341 H360D H301+H331 H372 H315 H334
H317 H410
P201 P281 P285 P273 P302+P352 P304+P340
P309+P310

CAS 7791-20-0
Index 028-011-00-6
EINECS: 231-743-0
UN: 3288
ADR 6.1,III

$NiCl_2 \cdot 6H_2O$
M.W. 237.69 g/mol
Density: 1.84 g/cm³ (20 °C)
Melting Pt: 140 °C
Storage Temperature: Ambient temperature

Nickel (II) chloride hexahydrate AnalaR NORMAPUR® analytical reagent (max. 0.005% Co)

Assay ..... Min. 98.0 %
Ca (Calcium) ..... Max. 0.02 %
Co (Cobalt) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm
Zn (Zinc) ..... Max. 10 ppm
pH (20°C; 5 %) ..... 3.5 to 7.0
Cd (Cadmium) ..... Max. 10 ppm
Cu (Copper) ..... Max. 10 ppm
Pb (Lead) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
25851.293	1 kg	Plastic bottle for solids

Nickel (II) chloride hexahydrate GPR RECTAPUR®

Assay ..... Min. 98 %
SO_4 (Sulphate) ..... Max. 0.1 %
Cd (Cadmium) ..... Max. 20 ppm
Cu (Copper) ..... Max. 20 ppm
Fe (Iron) ..... Max. 100 ppm
Pb (Lead) ..... Max. 20 ppm
Zn (Zinc) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
25850.290	1 kg	Plastic bottle for solids

Nickel (II) chloride hexahydrate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
25848.361	5 kg	Bucket (Plastic)

Nickel (II) nitrate hexahydrate

Danger
H272 H350i H341 H360D H372 H302+H332 H315 H318 H317 H410
P201 P210 P281 P273 P302+P352 P304+P340 P305+P351+P338 P309+P310

CAS 13478-00-7
Index 028-012-00-1
EINECS: 236-068-5
UN: 2725
ADR 5.1,III

$Ni(NO_3)_2 \cdot 6H_2O$
M.W. 290.79 g/mol
Density: 2.05 g/cm³ (20 °C)
Boiling Pt: 137 °C (1013 hPa)
Melting Pt: 56.7 °C

Nickel (II) nitrate hexahydrate AnalaR NORMAPUR® ACS analytical reagent (max. 0.005% Co)

Assay ..... Min. 98.0 %
NH_4 (Ammonium) ..... Max. 0.05 %
Co (Cobalt) ..... Max. 50 ppm
Na (Sodium) ..... Max. 50 ppm
Zn (Zinc) ..... Max. 100 ppm
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Ca (Calcium) ..... Max. 50 ppm
Pb (Lead) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
25873.232	250 g	Plastic bottle for solids

Nickel (II) nitrate hexahydrate GPR RECTAPUR®

Assay ..... Min. 96 %
Cl (Chloride) ..... Max. 0.02 %
SO_4 (Sulphate) ..... Max. 0.05 %
Cd (Cadmium) ..... Max. 25 ppm
Cu (Copper) ..... Max. 25 ppm
Pb (Lead) ..... Max. 25 ppm
Zn (Zinc) ..... Max. 25 ppm

Cat. No.	Pk	Pack type
25871.292	1 kg	Plastic bottle for solids

Nickel sulphate hexahydrate

Nickel (II) sulphate hexahydrate

Danger
H350i H341 H360D H372 H302+H332 H315 H334 H317 H410
P201 P281 P285 P273 P302+P352 P304+P340 P309+P311

CAS 10101-97-0
Index 028-009-00-5
EINECS: 232-104-9
UN: 3288
ADR 6.1,III

$NiSO_4 \cdot 6H_2O$
M.W. 262.85 g/mol
Density: 2.07 g/cm³ (20 °C)
Melting Pt: 840 °C
Storage Temperature: Ambient temperature

Nickel sulphate hexahydrate GPR RECTAPUR®

Assay ..... Min. 98 %
Cl (Chloride) ..... Max. 0.02 %
Cd (Cadmium) ..... Max. 25 ppm
Cu (Copper) ..... Max. 25 ppm
Pb (Lead) ..... Max. 25 ppm
Zn (Zinc) ..... Max. 25 ppm

Cat. No.	Pk	Pack type
25895.294	1 kg	Plastic bottle for solids

β-Nicotinamide adenine dinucleotide (NAD, oxidized form)

Nadide , Nicotinamide adenine dinucleotide, oxidized , NAD+

CAS 53-84-9
EINECS: 200-184-4

$C_{21}H_{27}N_7O_{14}P_2$
M.W. 663.43 g/mol
Melting Pt: 140 to 142 °C
Storage Temperature: 2 - 8°C

β-Nicotinamide adenine dinucleotide (NAD, oxidized form), reagent grade

A250/A260 ..... 0.78 - 0.88
A280/A260 ..... 0.17 - 0.27
Lamda max (pH 7.0) ..... 259 - 260 nm
Moisture (by Karl Fischer) ..... <4.0 %
Purity (Anhydrous) ..... 97 %

Cat. No.	Pk	Pack type
0455-1G	1 g	Glass bottle
0455-5G	5 g	Glass bottle
0455-10G	10 g	Plastic bottle for solids

ß-Nicotinamide adenine dinucleotide phosphate (NADP-Na2, oxidized form)

Nadide phosphate disodium salt , NADP-Na_2 , Nicotinamide-adenine dinucleotide phosphate disodium salt , NADP disodium salt

CAS 24292-60-2
EINECS: 246-129-8

$C_{21}H_{26}N_7Na_2O_{17}P_3$
M.W. 787.37 g/mol
Storage Temperature: -20°C

ß-Nicotinamide adenine dinucleotide phosphate (NADP-Na2, oxidized form)

ß-Nicotinamide adenine dinucleotide phosphate (NADP-Na_2, oxidized form)

Assay (on dry material)..... Min. 95 %
A 1%/1cm Lambda max 260 nm (dried mat., pH 7 phosphate buffer)..... 220 to 240
Water ..... Max. 6 %
Methanol (CH_3OH) ..... Max. 3 %

Cat. No.	Pk	Pack type
420514J	0,5 g	Glass bottle

ß-Nicotinamide adenine dinucleotide phosphate (NADP, oxidized form) trihydrate

CAS 53-59-8

EINECS: 200-178-1

$C_{21}H_{28}N_7O_{17}P_3.3H_2O$

Storage Temperature: -20°C

ß-Nicotinamide adenine dinucleotide phosphate (NADP, oxidized form) trihydrate, reagent grade

Heavy Metals.....0.002 %
Moisture (KF)..... REPORT
Purity (Anhydrous)..... 97 %
Sodium.....5.0 %

Cat. No.	Pk	Pack type
0760-500MG	500 mg	Glass bottle
0760-1G	1 g	Glass bottle
0760-5G	5 g	Glass bottle

Ninhydrin

Indanetrione hydrate

Warning
H302 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 485-47-2

EINECS: 207-618-1

$C_9H_6O_4$

M.W. 178.14 g/mol
Density: 0.862 g/cm^3 (20 °C)
Boiling Pt: 351 °C (1013 hPa)
Melting Pt: 250 to 258 °C
Storage Temperature: Ambient temperature

Ninhydrin AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Identification and melting point..... Passes test
Solubilty in water (10 g/l)..... Passes test
Conforms to ACS ..... Passes test
IR Spectrum..... Passes test
Suited for amino acid reagent..... Passes test
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
25905.107	5 g	Glass bottle
25905.153	50 g	Plastic bottle for solids
25905.180	100 g	Plastic bottle for solids

Ninhydrin solution R2

Danger
H318
P280 P305+P351+P338 P309+P310
Storage Temperature: Ambient temperature

Ninhydrin solution R2 Reag. Ph. Eur. 1058305

Cat. No.	Pk	Pack type
87878.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ninhydrin and stannous chloride reagent

Storage Temperature: Ambient temperature

Ninhydrin and stannous chloride reagent Reag. Ph. Eur. 1058301

Cat. No.	Pk	Pack type
87875.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ninhydrin in 1-butanol / acetic acid

Danger
H226 H302 H335 H315 H318 H336
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 485-47-2

EINECS: 207-618-1

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

$C_9H_6O_4$

Storage Temperature: Ambient temperature

Ninhydrin solution R3 Reag. Ph. Eur. 1058306

Cat. No.	Pk	Pack type
87879.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ninhydrin solution Reag. Ph. Eur. 1058303

Cat. No.	Pk	Pack type
87713.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ninhydrin reagent kit (solution A: Ninhydrin 4% in ethylene glycol monomethyl ether, solution B: tin (II) chloride 0.16% in aqueous solution, buffered, pH 5.5 (acetate buffer))

UN: 1188
ADR 3,III
Storage Temperature: Ambient temperature

Ninhydrin reagent kit (Ninhydrin and stannous chloride reagent R1) Reag. Ph. Eur. 1058302

Cat. No.	Pk	Pack type
87876.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Ninhydrin in 1-butanol

Danger
H226 H302 H335 H315 H318 H336
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 485-47-2
EINECS: 207-618-1
Flash Pt: 29

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

$C_9H_6O_4$
Storage Temperature: Ambient temperature

Ninhydrin 0.5% in 1-butanol, spray reagent for TLC

Squeeze container gently to dispense. Allow container to vent after use

Suited for reagent..... Passes test
Performance of spray..... Passes test

Cat. No.	Pk	Pack type
30960.226	240 ml	Aerosol can

Ozone friendly (Convention 07/02/1989)

Niobium standard solution, 10,000 mg/l Nb in water with hydrofluoric acid (max. 1%)

CAS 7440-03-1
EINECS: 231-113-5

Nb
M.W. 92.91 g/mol
Storage Temperature: Ambient temperature

Niobium standard solution, 10,000 mg/l Nb in water with hydrofluoric acid (max. 1%) (from Nb_2O_5) ARISTAR® standard for ICP

Nb_2O_5 in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455752K	100 ml	Plastic bottle

Supplied with certificate of analysis.

Niobium standard solution, 1,000 mg/l Nb in water with hydrofluoric acid (max. 1%)

CAS 7440-03-1
EINECS: 231-113-5

Nb
M.W. 92.91 g/mol
Storage Temperature: Ambient temperature

Niobium standard solution, 1,000 mg/l Nb in water with hydrofluoric acid (max. 1%) (from Nb_2O_5) ARISTAR® standard for ICP

Nb_2O_5 in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455742Y	100 ml	Plastic bottle
455744K	500 ml	Plastic bottle

Supplied with certificate of analysis.

Niobium standard solution, 1,000 mg/l Nb in 5% nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-03-1
EINECS: 231-113-5
UN: 3264
ADR 8,III

Nb
M.W. 92.91 g/mol
Storage Temperature: Ambient temperature

NEW Niobium standard solution, 1,000 mg/l Nb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86694.180	100 ml	Plastic bottle
86694.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Nitrate standard solution, 1,000 mg/l nitrate in water

Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Nitrate standard solution, 1,000 mg/l NO_3^- in water (from $NaNO_3$) ARISTAR® standard for ion chromatography

NO_3 in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458032U	100 ml	Plastic bottle
458034W	500 ml	Plastic bottle

Standard solution (1000 ppm NO_3^-) for the preparation of nitrate standard solution (100 ppm NO_3^-) Reag.Ph.Eur. 5002100

NEW Standard solution (1000 ppm NO_3^-) for the preparation of nitrate standard solution (100 ppm NO_3^-) Reag.Ph.Eur.; 5002100

Cat. No.	Pk	Pack type
88088.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Nitric acid (65 - < 70%)

Danger
H272 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Density: 1.4 g/cm³ (20 °C)
Boiling Pt: 120.5 °C (1013 hPa)
Melting Pt: -42 °C
Storage Temperature: Ambient temperature

Nitric acid 69% ARISTAR® for trace analysis

Assay (acidimetric)	68.5 to 69.5 %	Residue on ignition (as sulphates)	Max 1 ppm
Silicate (as Si)	Max 0.1 ppm	Phosphate (PO_4)	Max 0.1 ppm
Sulphates (SO_4)	Max 0.5 ppm	Chloride (Cl)	Max 0.05 ppm
Ag (Silver)	Max 0.005 ppm	Al (Aluminium)	Max 0.02 ppm
Au (Gold)	Max 0.005 ppm	B (Boron)	Max 0.005 ppm
Ba (Barium)	Max 0.005 ppm	Be (Beryllium)	Max 0.005 ppm
Bi (Bismuth)	Max 0.005 ppm	Ca (Calcium)	Max 0.05 ppm
Cd (Cadmium)	Max 0.005 ppm	Co (Cobalt)	Max 0.005 ppm
Cr (Chromium)	Max 0.01 ppm	Cu (Copper)	Max 0.005 ppm
Fe (Iron)	Max 0.02 ppm	Ga (Gallium)	Max 0.02 ppm
Ge (Germanium)	Max 0.01 ppm	Hg (Mercury)	Max 0.001 ppm
In (Indium)	Max 0.01 ppm	K (Potassium)	Max 0.01 ppm
Li (Lithium)	Max 0.005 ppm	Mg (Magnesium)	Max 0.01 ppm
Mn (Manganese)	Max 0.005 ppm	Mo (Molybdenum)	Max 0.005 ppm
Na (Sodium)	Max 0.05 ppm	Ni (Nickel)	Max 0.005 ppm
Pb (Lead)	Max 0.005 ppm	Pt (Platinium)	Max 0.005 ppm
As + Sb (Arsenic + Antimony) (as As)	Max 0.005 ppm	Sn (Tin)	Max 0.02 ppm
Sr (Strontium)	Max 0.005 ppm	Ti (Titanium)	Max 0.005 ppm
Tl (Thallium)	Max 0.005 ppm	V (Vanadium)	Max 0.005 ppm
Zn (Zinc)	Max 0.01 ppm	Zr (Zirconium)	Max 0.005 ppm

Cat. No.	Pk	Pack type
450041M	500 ml	Glass bottle SAFEBREAK
450042N	1 l	Glass bottle SAFEBREAK
450043X	2,5 l	Glass bottle SAFEBREAK

Nitric acid 69% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	69.0 to 71.0 %	Heavy metals (as Pb)	Max. 0.2 ppm
Ignition residue (SO_4)	Max. 5 ppm	Silica	Max. 0.2 ppm
Cl (Chloride)	Max. 0.5 ppm	PO_4 (Phosphate)	Max. 2 ppm
SO_4 (Sulphate)	Max. 1 ppm	Al (Aluminium)	Max. 0.05 ppm
As (Arsenic)	Max. 0.01 ppm	Ba (Barium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.1 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.05 ppm	Mg (Magnesium)	Max. 0.03 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.3 ppm	Ni (Nickel)	Max. 0.01 ppm
Pb (Lead)	Max. 0.01 ppm	Sr (Strontium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.05 ppm	Conforms to BDH 14159	Passes test

Cat. No.	Pk	Pack type
20425.242	1 l	Glass bottle SAFEBREAK
20425.297	1 l	Glass bottle
20425.322	2,5 l	Glass bottle SAFEBREAK
20425.420	2,5 l	Glass bottle

Nitric acid 69% AnalaR NORMAPUR® analytical reagent, for trace analysis of cadmium, mercury and lead

Assay	69.0 to 71.0 %	Ignition residue (SO_4)	Max. 5 ppm
Cl (Chloride)	Max. 0.5 ppm	SO_4 (Sulphate)	Max. 1 ppm
As (Arsenic)	Max. 0.01 ppm	Cd (Cadmium)	Max. 0.005 ppm
Fe (Iron)	Max. 0.2 ppm	Hg (Mercury)	Max. 0.002 ppm
Pb (Lead)	Max. 0.005 ppm		

Cat. No.	Pk	Pack type
20428.242	1 l	Glass bottle SAFEBREAK
20428.297	1 l	Glass bottle

Nitric acid 69% AnalaR NORMAPUR® analytical reagent

Assay	68.5 to 69.5 %	Chloride (Cl)	Max. 0.00005 %
Phosphate (PO_4)	Max. 0.00005 %	Sulphate (SO_4)	Max. 0.00005 %
Arsenic and Antimony (as As)	Max. 0.000001 %	Al (Aluminium)	Max. 0.000005 %
Au (Gold)	Max. 0.00001 %	B (Boron)	Max. 0.000005 %
Ba (Barium)	Max. 0.000005 %	Be (Beryllium)	Max. 0.000002 %
Bi (Bismuth)	Max. 0.00001 %	Ca (Calcium)	Max. 0.000010 %
Cd (Cadmium)	Max. 0.000002 %	Co (Cobalt)	Max. 0.000001 %
Cr (Chromium)	Max. 0.000002 %	Cu (Copper)	Max. 0.000002 %
Fe (Iron)	Max. 0.00002 %	Ga (Gallium)	Max. 0.000002 %
Ge (Germanium)	Max. 0.00001 %	In (Indium)	Max. 0.000002 %
K (Potassium)	Max. 0.00001 %	Li (Lithium)	Max. 0.000002 %
Mg (Magnesium)	Max. 0.000010 %	Mn (Manganese)	Max. 0.000001 %
Mo (Molybdenum)	Max. 0.000002 %	Na (Sodium)	Max. 0.00003 %
Ni (Nickel)	Max. 0.000002 %	Pb (Lead)	Max. 0.000005 %
Pt (Platinum)	Max. 0.00002 %	Sr (Strontium)	Max. 0.000002 %
Ti (Titanium)	Max. 0.00001 %	Tl (Thallium)	Max. 0.000005 %
V (Vanadium)	Max. 0.000005 %	Zn (Zinc)	Max. 0.00001 %
Zr (Zirconium)	Max. 0.00001 %	Residue on ignition (as SO_4)	Max. 0.0005 %

Cat. No.	Pk	Pack type
101685D	2,5 l	Glass bottle SAFEBREAK

Nitric acid 69% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153574.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Nitric acid 69% SLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
56999049.	260 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Nitric acid 68% AnalaR NORMAPUR® analytical reagent

Assay	68.0 to 70.0 %	Density (20/4)	1.404 to 1.413
Ignition residue (SO_4)	Max. 10 ppm	Cl (Chloride)	Max. 0.5 ppm
PO_4 (Phosphate)	Max. 2 ppm	SO_4 (Sulphate)	Max. 2 ppm
As (Arsenic)	Max. 0.01 ppm	Fe (Iron)	Max. 1 ppm
Mn (Manganese)	Max. 0.4 ppm	Pb (Lead)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
20422.242	1 l	Glass bottle SAFEBREAK
20422.297	1 l	Glass bottle
20422.322	2,5 l	Glass bottle SAFEBREAK

Nitric acid 68% GPR RECTAPUR®

Assay	68.5 to 70.0 %
Density (20/4)	1.400 to 1.420
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm
Fe (Iron)	Max. 2 ppm
Pb (Lead)	Max. 1 ppm
Conforms to BDH 29335	Passes test

Cat. No.	Pk	Pack type
20413.296	1 l	Glass bottle
20413.321	2,5 l	Glass bottle SAFEBREAK
20413.420	2,5 l	Plastic bottle
20413.365	5 l	Plastic bottle
20413.460	25 l	Plastic drum

Nitric acid 68% TECHNICAL

Assay	68 to 70 %

Cat. No.	Pk	Pack type
20406.292	1 l	Plastic bottle
20406.326	2,5 l	Glass bottle SAFEBREAK
20406.361	5 l	Plastic bottle

Nitric acid 67% NORMATOM®, ultrapure for trace metal analysis

Assay	Min. 67 %	Ag (Silver)	Max. 10 ppt
Al (Aluminium)	Max. 20 ppt	As (Arsenic)	Max. 20 ppt
Au (Gold)	Max. 20 ppt	B (Boron)	Max. 20 ppt
Ba (Barium)	Max. 10 ppt	Be (Beryllium)	Max. 10 ppt
Bi (Bismuth)	Max. 10 ppt	Ca (Calcium)	Max. 20 ppt
Cd (Cadmium)	Max. 10 ppt	Ce (Cerium)	Max. 10 ppt
Co (Cobalt)	Max. 10 ppt	Cr (Chromium)	Max. 20 ppt
Cs (Cesium)	Max. 10 ppt	Cu (Copper)	Max. 20 ppt
Dy (Dysprosium)	Max. 1 ppt	Er (Erbium)	Max. 1 ppt
Eu (Europium)	Max. 1 ppt	Fe (Iron)	Max. 20 ppt
Ga (Gallium)	Max. 10 ppt	Gd (Gadolinium)	Max. 1 ppt
Ge (Germanium)	Max. 10 ppt	Hf (Hafnium)	Max. 10 ppt
Hg (Mercury)	Max. 100 ppt	Ho (Holmium)	Max. 1 ppt
In (Indium)	Max. 1 ppt	K (Potassium)	Max. 10 ppt
La (Lanthanum)	Max. 1 ppt	Li (Lithium)	Max. 10 ppt
Lu (Lutetium)	Max. 1 ppt	Mg (Magnesium)	Max. 10 ppt
Mn (Manganese)	Max. 10 ppt	Mo (Molybdenum)	Max. 10 ppt
Na (Sodium)	Max. 10 ppt	Nb (Niobium)	Max. 1 ppt
Nd (Neodymium)	Max. 1 ppt	Ni (Nickel)	Max. 50 ppt
Pb (Lead)	Max. 10 ppt	Pd (Palladium)	Max. 20 ppt
Pr (Praseodymium)	Max. 1 ppt	Pt (Platinum)	Max. 20 ppt
Rb (Rubidium)	Max. 10 ppt	Re (Rhenium)	Max. 10 ppt
Rh (Rhodium)	Max 10 ppt	Ru (Ruthenium)	Max. 20 ppt
Sb (Antimony)	Max. 10 ppt	Sc (Scandium)	Max. 10 ppt
Sm (Samarium)	Max. 1 ppt	Sn (Tin)	Max. 20 ppt
Sr (Strontium)	Max. 10 ppt	Tb (Terbium)	Max. 1 ppt
Te (Tellurium)	Max. 1 ppt	Th (Thorium)	Max. 1 ppt
Ti (Titanium)	Max. 10 ppt	Tl (Thallium)	Max. 10 ppt
Tm (Thulium)	Max. 1 ppt	U (Uranium)	Max. 1 ppt
V (Vanadium)	Max. 10 ppt	W (Tungsten)	Max. 10 ppt
Y (Yttrium)	Max. 1 ppt	Yb (Ytterbium)	Max. 1 ppt
Zn (Zinc)	Max. 20 ppt	Zr (Zirconium)	Max. 10 ppt

Cat. No.	Pk	Pack type
83879.270	500 ml	Plastic bottle
83879.290	1 l	Plastic bottle

Nitric acid 67% NORMATOM® for trace metal analysis

Assay	67 to 69 %	Colouration	Max. 10 APHA
Cl (Chloride)	Max. 0.2 ppm	Total P (Phosphorus)	Max. 0.01 ppm
Total S (Sulphur)	Max. 0.3 ppm	Ag (Silver)	Max. 0.1 ppb
Al (Aluminium)	Max. 1 ppb	As (Arsenic)	Max. 0.5 ppb
Au (Gold)	Max. 0.1 ppb	B (Boron)	Max. 1 ppb
Ba (Barium)	Max. 0.1 ppb	Be (Beryllium)	Max. 0.1 ppm
Bi (Bismuth)	Max. 0.1 ppb	Ca (Calcium)	Max. 1 ppb
Cd (Cadmium)	Max. 0.5 ppb	Ce (Cerium)	Max. 0.1 ppb
Co (Cobalt)	Max. 0.5 ppb	Cr (Chromium)	Max. 1 ppb
Cs (Cesium)	Max. 0.1 ppb	Cu (Copper)	Max. 0.5 ppb
Dy (Dysprosium)	Max. 0.1 ppb	Er (Erbium)	Max. 0.1 ppb
Eu (Europium)	Max. 0.1 ppb	Fe (Iron)	Max. 1 ppb
Ga (Gallium)	Max. 0.1 ppb	Gd (Gadolinium)	Max. 0.1 ppb
Ge (Germanium)	Max. 0.1 ppb	Hf (Hafnium)	Max. 0.1 ppb
Hg (Mercury)	Max. 0.1 ppb	Ho (Holmium)	Max. 0.1 ppb
In (Indium)	Max. 0.1 ppb	K (Potassium)	Max. 1 ppb
La (Lanthanum)	Max. 0.1 ppb	Li (Lithium)	Max. 0.1 ppb
Lu (Lutetium)	Max. 0.1 ppb	Mg (Magnesium)	Max. 1 ppb
Mn (Manganese)	Max. 0.1 ppb	Mo (Molybdenum)	Max. 0.1 ppb
Na (Sodium)	Max. 1 ppb	Nb (Niobium)	Max. 0.1 ppb
Nd (Neodymium)	Max. 0.1 ppb	Ni (Nickel)	Max. 0.5 ppb
Pb (Lead)	Max. 0.1 ppb	Pd (Palladium)	Max. 0.5 ppb
Pr (Praseodymium)	Max 0.1 ppb	Pt (Platinum)	Max. 0.5 ppb
Rb (Rubidium)	Max. 0.1 ppb	Re (Rhenium)	Max. 0.1 ppb
Rh (Rhodium)	Max. 0.5 ppb	Ru (Ruthenium)	Max. 0.5 ppb
Sb (Antimony)	Max. 0.5 ppb	Sc (Scandium)	Max. 0.1 ppb
Se (Selenium)	Max. 1 ppb	Sm (Samarium)	Max. 0.1 ppb
Sn (Tin)	Max. 0.5 ppb	Sr (Strontium)	Max. 0.1 ppb
Tb (Terbium)	Max. 0.1 ppb	Te (Tellurium)	Max. 0.1 ppb
Th (Thorium)	Max. 0.1 ppb	Ti (Titanium)	Max. 0.5 ppb
Tl (Thallium)	Max. 0.1 ppb	Tm (Thulium)	Max. 0.1 ppb
U (Uranium)	Max. 0.1 ppb	V (Vanadium)	Max. 0.5 ppb
W (Tungsten)	Max. 0.1 ppb	Y (Yttrium)	Max. 0.1 ppb

Cat. No.	Pk	Pack type
83872.270	500 ml	Plastic bottle
83872.290	1 l	Plastic bottle
83872.330	2,5 l	Plastic bottle

Nitric acid 65% AnalaR NORMAPUR® analytical reagent

Assay	Min. 65.0 %	Heavy metals (as Pb)	Max. 0.2 ppm
Ignition residue (SO_4)	Max. 5 ppm	Silica	Max. 0.2 ppm
Cl (Chloride)	Max. 0.5 ppm	PO_4 (Phosphate)	Max. 2 ppm
SO_4 (Sulphate)	Max. 1 ppm	Al (Aluminium)	Max. 0.1 ppm
As (Arsenic)	Max. 0.01 ppm	Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 1 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.05 ppm
Cu (Copper)	Max. 0.05 ppm	Fe (Iron)	Max. 0.2 ppm
K (Potassium)	Max. 0.2 ppm	Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 3 ppm	Ni (Nickel)	Max. 0.05 ppm
Pb (Lead)	Max. 0.05 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20429.245	1 l	Glass bottle SAFEBREAK
20429.291	1 l	Glass bottle
20429.320	2,5 l	Glass bottle
20429.427	2,5 l	Glass bottle SAFEBREAK
20429.460	25 l	Steel drum

Nitric acid (60 - < 65%)

Danger
H272 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Density: 1.37 g/cm³ (20 °C)
Boiling Pt: ~ 120 °C (1013 hPa)
Melting Pt: -22 °C
Storage Temperature: Ambient temperature

Nitric acid 60% GPR RECTAPUR®

Assay..... Min. 60.0 %
Density (20/4)..... 1.370 to 1.380
Heavy metals (as Pb)..... Max. 2 ppm
Ignition residue (SO_4)..... Max. 50 ppm
Cl (Chloride)..... Max. 5 ppm
SO_4 (Sulphate)..... Max. 10 ppm
As (Arsenic)..... Max. 0.05 ppm
Fe (Iron)..... Max. 2 ppm

Cat. No.	Pk	Pack type
20421.294	1 l	Glass bottle
20421.460	25 l	Steel drum
20421.551	200 l	Metal drum with liner

Nitric acid (40 - < 60%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Storage Temperature: Ambient temperature

Nitric acid 58-60% AnalaR NORMAPUR® analytical reagent

Assay..... Min. 60.0 %
Heavy metals (as Pb)..... Max. 0.2 ppm
Cl (Chloride)..... Max. 0.5 ppm
SO_4 (Sulphate)..... Max. 2 ppm
Fe (Iron)..... Max. 1 ppm
Pb (Lead)..... Max. 0.05 ppm
Density (20/4)..... 1.370 to 1.380
Ignition residue (SO_4)..... Max. 10 ppm
PO_4 (Phosphate)..... Max. 2 ppm
As (Arsenic)..... Max. 0.01 ppm
Mn (Manganese)..... Max. 0.4 ppm

Cat. No.	Pk	Pack type
20423.291	1 l	Glass bottle
20423.360	5 l	Plastic bottle

Nitric acid 52.5% AnalaR NORMAPUR® analytical reagent

Assay..... 52.5 to 54.0 %
Heavy metals (as Pb)..... Max. 2 ppm
Cl (Chloride)..... Max. 0.5 ppm
SO_4 (Sulphate)..... Max. 2 ppm
Fe (Iron)..... Max. 1 ppm
Density (20/4)..... 1.325 to 1.335
Ignition residue (SO_4)..... Max. 10 ppm
PO_4 (Phosphate)..... Max. 2 ppm
As (Arsenic)..... Max. 0.05 ppm
Mn (Manganese)..... Max. 0.4 ppm

Cat. No.	Pk	Pack type
20420.291	1 l	Glass bottle
20420.325	2,5 l	Glass bottle SAFEBREAK
20420.462	25 l	Steel drum

Nitric acid 52.5% GPR RECTAPUR®

Assay..... 52.5 to 54.0 %
Density (20/4)..... 1.325 to 1.335
Heavy metals (as Pb)..... Max. 20 ppm
Ignition residue (SO_4)..... Max. 0.02 %
Cl (Chloride)..... Max. 10 ppm
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
20412.293	1 l	Glass bottle
20412.362	5 l	Plastic bottle

Nitric acid (20 - < 40%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Density: 1.2 to 1.4 g/cm³ (20 °C)
Boiling Pt: ~ 86 °C (1013 hPa)
Melting Pt: -42 °C
Storage Temperature: Ambient temperature

Nitric acid 20% Reag. Ph. Eur. 1058402

Cat. No.	Pk	Pack type
87880.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Nitric acid concentrated solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 2031
ADR 8,II

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Density: 1.38 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Nitric acid 0.1 mol concentrated solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C)..... 0.0998 - 0.1002 mol/l

Cat. No.	Pk	Pack type
32069.606	60 ml	Plastic ampoule

Nitric acid (0.8 - < 3.65 mol/l; 0.8 - < 3.65 N)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7697-37-2
Index 007-004-00-1
EINECS: 231-714-2
UN: 3264
ADR 8,III

Restricted to professional users.

HNO_3
M.W. 63.01 g/mol
Density: 1.035 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Nitric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
30065.291	1 l	Glass bottle

2,2',2''-Nitrilotriethanol

See Triethanolamine (Trolamine) p.514

Nitrite (reagents for the analysis of)

Sulphanilic acid AnalaR NORMAPUR® analytical reagent..... p.485
Mercaptoacetic acid (Thioglycolic acid) GPR RECTAPUR® p.281

Nitrite standard solution, 1,000 mg/l nitrite in water

Storage Temperature: Ambient temperature

Nitrite standard solution, 1,000 mg/l nitrite in water (from $NaNO_2$) ARISTAR® standard for ion chromatography

(NO_2 in H_2O)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458022S	100 ml	Plastic bottle
458024U	500 ml	Plastic bottle

Nitrite standard solution, 200 mg/l nitrite in water

Storage Temperature: Ambient temperature

Nitrite standard solution, 200 mg/l nitrite in water (from $NaNO_2$) ARISTAR® standard for ion chromatography

NO_2 in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458092J	100 ml	Plastic bottle

Nitro blue tetrazolium chloride (NBT)

5,5'-Diphenyl-3,3'-bis(4-nitrophenyl)-2,2'-(3,3'-dimethoxybiphenyl-4,4'-ylene)ditetrazolium dichloride

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 298-83-9
EINECS: 206-067-4

$C_{40}H_{30}Cl_2N_{10}O_6$
M.W. 817.65 g/mol
Melting Pt: 200 °C
Storage Temperature: 2 - 8°C

Nitro blue tetrazolium chloride (NBT) Molecular biology grade

Assay ..... Min. 98.0 %
Appearance ..... Yellow powder
IR Spectrum ..... Passes test
Water ..... Max. 5.0 %
Sulphated ash ..... Max. 0.20 %
Absorptivity (256.6 nm) ..... Passes test
Control by TLC ..... Passes test

Cat. No.	Pk	Pack type
438592X	1 g	Glass bottle
438597T	100 g	Glass bottle

p-Nitroblue tetrazolium chloride

See Nitro blue tetrazolium chloride (NBT)..... p.327

Nitrochromic reagent

Danger
H272 H350 H340 H360FD H330 H301 H372 H312
H314 H335 H334 H317 H410
P201 P210 P281 P284 P273 P301+P330+P331
P302+P352 P304+P340 P309+P310
UN: 3289
ADR 6.1,I

Restricted to professional users.
Storage Temperature: Ambient temperature

Nitrochromic reagent Reag. Ph. Eur. 1059100

Cat. No.	Pk	Pack type
87881.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Nitrogen (reagents for the analysis of) without Catalyst

Copper (II) sulphate pentahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent..... p.125
Nessler's reagent for determination of ammonia and ammonium salts.... p.319
Sulphuric acid 95% AnalaR NORMAPUR® analytical reagent..... p.487

4-Nitrophenyl dihydrogen phosphate disodium salt hexahydrate

See di-Sodium 4-nitrophenyl phosphate hexahydrate..... p.452

(2-Nitrophenyl) β-D-galactopyranoside

CAS 369-07-3
EINECS: 206-716-1

$C_{12}H_{15}NO_8$
Storage Temperature: -20°C

VWR CHEMICALS (2-Nitrophenyl) β-D-galactopyranoside, ultrapure

Chromogenic substrate for the detection of β-galactosidase. Commonly used in ELISA. Absorbs at 410 nm.

Solubility (1%, Water) ..... PASS
Specific Rotation ..... -72 to -68 °

Cat. No.	Pk	Pack type
0789-5G	5 g	Glass bottle
0789-25G	25 g	Glass bottle

4-Nitrophenyl phosphate disodium salt hexahydrate

See di-Sodium 4-nitrophenyl phosphate hexahydrate..... p.452

p-Nitrophenyl phosphate disodium salt hexahydrate

See di-Sodium 4-nitrophenyl phosphate hexahydrate p.452

Nitrotetrazolium blue chloride

See Nitro blue tetrazolium chloride (NBT) p.327

NMP

See N-Methyl-2-pyrrolidone (NMP) p.293

N-(1-Naphthyl)ethylenediamine dihydrochloride

See N-2-Aminoethyl-1-naphthylamine dihydrochloride p.26

Nonaethylene glycol monododecylether (C12E9)

CAS 3055-99-0
EINECS: 221-284-4

$C_{30}H_{62}O_{10}$
Storage Temperature: Ambient temperature

Nonaethylene glycol monododecylether (C12E9), ultrapure

Non ionic detergent.

Refractive Index @25 °C ..... 1.44 - 1.46
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
J622-1G	1 g	Glass bottle

Nonidet® P 40 Substitute (NP-40)

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 9016-45-9
EINECS: 500-024-6
Storage Temperature: Ambient temperature

Nonidet® P 40 Substitute (NP-40), proteomics grade

Non ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Density (20 °C) ..... 1.05 - 1.07 g/ml
Protease ..... NONE
Refractive Index ..... 1.48 - 1.52
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
M158-50ML	50 ml	Plastic bottle
M158-100ML	100 ml	Plastic bottle
M158-500ML	500 ml	Plastic bottle

Nonidet® P 40 Substitute (NP-40), reagent grade

Non ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Density (20 °C) ..... 1.05 - 1.07 g/ml
Refractive Index ..... 1.48 - 1.52
Solubility (5%, Water) ..... PASS

Cat. No.	Pk	Pack type
E109-50ML	50 ml	Plastic bottle
E109-100ML	100 ml	Plastic bottle
E109-500ML	500 ml	Plastic bottle

Norflurano

1,1,1,2-Tetrafluoroethane , Freon 134A , HFC-134a

Warning
H280
P410+P403

CAS 811-97-2
EINECS: 212-377-0
UN: 3159
ADR 2,

$C_2H_2F_4$
M.W. 102.03 g/mol
Density: ~ 1.2 g/cm³ (20 °C)
Boiling Pt: -26.2 °C (1013 hPa)
Melting Pt: -101 °C
Storage Temperature: Ambient temperature

Cryo-Jet Lamb's freezing aerosol

(formulation Raymond A. Lamb)

C.F.C. free aerosol, useful for quick cooling of paraffin blocks. It can be used for cryotomy for initial freezing of tissue before sectioning, replacing carbon dioxide, iso-pentane and liquid nitrogen.

Cat. No.	Pk	Pack type
361852T	275 ml	Aerosol can

Technical data sheet and instructions available on vwr.com

NP-40 lysis buffer

NP-40 lysis buffer, ultrapure

Conductivity (10%, Water) @25°C ..... REPORT
pH @25°C ..... 7.9 - 8.1
Tris ..... 45 - 55 mM

Cat. No.	Pk	Pack type
J619-500ML	500 ml	Plastic bottle

Nuclear Fast Red

Sodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate

CAS 6409-77-4
EINECS: 229-088-0

$C_{14}H_8NNaO_7S$
M.W. 357.28 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Nuclear Fast Red TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27416.101	5 g	Glass bottle

Nuclear Fast Red GURR® for microscopical staining

IVD

Dye content (spectrophotometric)	Min 90 %
Suitability for microscopy	Passes test
Loss on drying (110°C)	Max 5 %
Absorption max. (Lambda2 - DMSO)	520 to 522 nm
Absorption max. (Lambda1 - DMSO)	557 to 559 nm
Absorptivity (A 1%/1cm, Lambda1 max, DMSO)	380 to 422 nm
Absorptivity (A 1%/1cm, Lambda2 max, DMSO)	383 to 426 nm
TLC test	Passes test

Cat. No.	Pk	Pack type
342094W	25 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Nutrient Agar

See Microbiology

Nystatin

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1400-61-9
EINECS: 215-749-0

$C_{47}H_{75}NO_{17}$
Storage Temperature: -20°C

VWR CHEMICALS Nystatin for tissue culture, γ-irradiated

Aseptically prepared, gamma-irradiated, tissue culture tested. Nystatin is a broad spectrum antimyctotic agent that alters membrane permeability in yeasts and moulds. 5 mg/ml solution when reconstituted in 10 ml of sterile, distilled water.

Loss on Drying	5.0 %
pH (3 %, Water) @25 °C	6.5 - 8.0
Potency (Anhydrous)	4400 U/mg

Cat. No.	Pk	Pack type
E474-10ML	10 ml	Vial

OCT mounting medium

Storage Temperature: Ambient temperature

OCT Mounting media GURR®

Mounting medium for cryotomy

- Chemically inert
- Sectioning frozen O.C.T. will not dull knife
- Miscible with water - facilitating easy removal
- High viscosity ensuring strong adhesion to tissue and holder, also allowing specimen to be held in proper orientation while medium is still liquid

Cat. No.	Pk	Pack type
361603E	125 ml	Plastic bottle

Technical data sheet and instructions available on vwr.com

NEW OCT mounting medium Q PATH®

High viscosity mounting media for cryotomy.

IVD

Cat. No.	Pk	Pack type
00411243.	125 ml	Dosing Bottle (Plastic)

IVD registered. Instructions for use on vwr.com- just search for the product.

Octadecylic acid

See Stearic acid p.482

Octaethylene glycol monododecylether (C12E8)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 3055-98-9

$C_{28}H_{58}O_9$
Storage Temperature: 2 - 8°C

VWR CHEMICALS Octaethylene glycol monododecylether (C12E8), ultrapure

Non ionic detergent.

Purity (GC) ..... 98 %
Solubility (1%, Water) ..... PASS

Cat. No.	Pk	Pack type
J567-1G	1 g	Glass bottle

n-Octane

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 111-65-9
Index 601-009-00-8
EINECS: 203-892-1
UN: 1262
ADR 3,II
Flash Pt: 8 °C

$H_3C(CH_2)_6CH_3$
M.W. 114.23 g/mol
Density: 0.703 g/cm³ (20 °C)
Boiling Pt: 126 °C (1013 hPa)
Melting Pt: -57 °C
Storage Temperature: Ambient temperature

n-Octane GPR RECTAPUR®

Assay ..... Min. 99 %
Density (20/4) ..... 0.700 to 0.710
Distillation range ..... 125 to 127 °C
Evaporation residue ..... Max. 50 ppm

Cat. No.	Pk	Pack type
26025.238	250 ml	Glass bottle
26025.466	25 l	Metal drum

n-Octane TECHNICAL

Assay ..... Min. 95 %

Cat. No.	Pk	Pack type
26024.292	1 l	Glass bottle

1-Octanesulphonic acid sodium salt

Sodium 1-octansulphonate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 5324-84-5
EINECS: 226-195-4

$C_8H_{17}NaO_3S$
M.W. 216.28 g/mol
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

1-Octanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC

Assay (calculated on dried substance) ..... Min. 99 %
IR Spectrum ..... Passes test
pH (10 %) ..... 5.5 to 7.5
Loss on drying (120°C; under vacuum) ..... Max. 2 %
Transmittance (200 nm) (0.005 mol/l) ..... Min. 70 %
Transmittance (220 nm) (0.005 mol/l) ..... Min. 90 %
Transmittance (250 nm) (0.005 mol/l) ..... Min. 98 %

Cat. No.	Pk	Pack type
152802T	25 g	Plastic bottle for solids
152803U	100 g	Plastic bottle for solids

1-Octanol

Warning
H319
P280 P305+P351+P338

CAS 111-87-5
EINECS: 203-917-6
Flash Pt: 81 °C

$H_3C(CH_2)_6CH_2OH$
M.W. 130.23 g/mol
Density: 0.8246 g/cm³ (20 °C)
Boiling Pt: 195 °C (1013 hPa)
Melting Pt: -16 °C
Storage Temperature: Ambient temperature

1-Octanol, purified

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20850.296	1 l	Glass bottle

Octyl β-D-glucopyranoside

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 29836-26-8
EINECS: 249-887-8

$C_{14}H_{28}O_6$
M.W. 292.37 g/mol
Melting Pt: 110 °C
Storage Temperature: -20°C

VWR CHEMICALS Octyl β-D-glucopyranoside, reagent grade

Non ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Protease ..... NONE
Purity ..... 98.0 %
Solubility (10%, Water) ..... PASS
Specific Rotation ..... -32.0 to -28.0 °

Cat. No.	Pk	Pack type
0479-500MG	500 mg	Glass bottle
0479-1G	1 g	Glass bottle
0479-5G	5 g	Glass bottle

Di-iso-octyl phthalate

See Bis(2-ethylhexyl) phthalate p.67

Octyl β-D-thioglucopyranoside

CAS 85618-21-9

$C_{14}H_{28}O_5S$
Storage Temperature: -20°C

VWR CHEMICALS Octyl β-D-thioglucopyranoside, ultrapure

Non ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Purity ..... 98 %
Solubility (5%, Water) ..... PASS
Specific Rotation (1%, MeOH) ..... -55 to -49 °

Cat. No.	Pk	Pack type
J575-1G	1 g	Glass bottle

OGYE Agar

See Microbiology

Oil 10 S VOLTALEF®

See Poly(chlorotrifluoroethylene) 800 ..... p.366

Oil for baths

See Silicone

Oil of castor

Castor oil , Oleum Ricini s. Castoris , Ricinus oil , Oil of Palma Christi

CAS 8001-79-4
EINECS: 232-293-8
Flash Pt: Min. 113 °C (closed cup)
Density: 0.95 g/cm³ (20 °C)
Boiling Pt: 313 °C (1013 hPa)
Melting Pt: -10 °C

Oil of castor GPR RECTAPUR®

Solubility in methanol ..... Passes test
Acid value ..... Max. 1.0
Density (20/4) ..... 0.950 to 0.970
Iodine value ..... 80 to 95
Saponification value ..... 170 to 190
Non-saponifiable matter ..... Max. 0.8 %

Cat. No.	Pk	Pack type
24667.290	1 l	Glass bottle
24667.368	5 l	Plastic container

Oil of cedar wood

Cedar wood oil

Warning
H302 H315
P280 P301+P312 P302+P352

CAS 8000-27-9
Density: 0.98 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Oil of cedar wood (natural)

Identification ..... Passes test

Cat. No.	Pk	Pack type
23686.232	250 ml	Glass bottle

Oil of turpentine

See Turpentine oil p.525

Oleic acid

CAS 112-80-1
EINECS: 204-007-1
Flash Pt: 180 °C

$C_{18}H_{34}O_2$
M.W. 282.47 g/mol
Density: 0.8946 g/cm³ (20 °C)
Boiling Pt: 286 °C (1013 hPa)
Melting Pt: 16.7 °C
Storage Temperature: -20°C

Oleic acid GPR RECTAPUR®, purified

Assay (as fatty acids (C_{16} to C_{18})) ..... Min. 96 %
Acid value ..... 198 to 240
Iodine value ..... 92 to 100
Linoleic acid ..... 10 to 20 %
Oleic acid ..... Min. 70 %
Palmitic acid ..... Max. 8 %
Palmitoleic acid ..... Max. 1 %
Stearic acid ..... Max. 4 %

Cat. No.	Pk	Pack type
20447.293	1 l	Glass bottle
20447.362	5 l	Plastic bottle

OPD tablets 15 mg

VWR CHEMICALS OPD tablets 15 mg, ultrapure

Widely used to detect horseradish peroxidase activity in ELISA and solution assays. Absorbs at 492 nm. Each tablet contains 15 mg of OPD.

Cat. No.	Pk	Pack type
J348-50T	50 Tab.	Glass bottle

Orange lead

See Lead (II,IV) oxide p.265

Orcein
Natural Red 28

CAS 1400-62-0
EINECS: 215-750-6

Orcein TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26091.134	25 g	Plastic bottle for solids

Orcein (synthetic) GURR® for microscopical staining

IVD

Suitability for microscopy ..... Passes test
Loss on drying (110°C) ..... Max 7 %
Absorptivity (A 1%/1cm, Lambda max, NaOH 0.01 mol/L) ..... 270 to 330
Absorption max. Lambda (in NaOH 0.01 mol/L) ..... 575 to 580 nm
TLC test ..... Passes test

Cat. No.	Pk	Pack type
342102F	25 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Orthoperiodic acid
ortho-Periodic acid

Danger
H271 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 10450-60-9
EINECS: 233-937-0
UN: 3085
ADR 5.1,I

H_5IO_6
M.W. 227.94 g/mol
Density: 1.3875 g/cm³ (20 °C)
Melting Pt: 122 °C
Storage Temperature: Ambient temperature

Orthoperiodic acid AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Ignition residue (SO_4) ..... Max. 0.2 %
SO_4 (Sulphate) ..... Max. 100 ppm
Insolubility in water ..... Max. 50 ppm
Cl + ClO_3 + Br + BrO_3 (as Cl) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
20593.151	50 g	Plastic bottle for solids
20593.180	100 g	Plastic bottle for solids

Orthoperiodic acid GPR RECTAPUR®

Assay ..... Min. 97 %
Ignition residue (SO_4) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
20592.124	10 g	Plastic bottle for solids
20592.181	100 g	Plastic bottle for solids

Orthoperiodic acid (≥ 10%)

Danger
H271 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 10450-60-9
EINECS: 233-937-0
UN: 3098
ADR 5.1,II

H_5IO_6
M.W. 227.94 g/mol

Orthoperiodic acid 50% GPR RECTAPUR®

Assay ..... 49.5 to 51.0 %

Cat. No.	Pk	Pack type
294604D	100 ml	Glass bottle

Orthoperiodic acid 0.002 mol/l in acetic acid

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 10450-60-9
EINECS: 233-937-0

H_5IO_6
Storage Temperature: Ambient temperature

Orthoperiodic acid 0.002 mol/l in acetic acid Reag. Ph. Eur. 1063000

Cat. No.	Pk	Pack type
87887.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Orthophosphoric acid (> 85%)
Phosphoric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-38-2
Index 015-011-00-6
EINECS: 231-633-2
UN: 3453
ADR 8,III

H_3PO_4
Density: 1.71 to 1.87 g/cm³ (25 °C)
Melting Pt: 28 °C
Storage Temperature: Ambient temperature

Orthophosphoric acid 85% HiPerSolv CHROMANORM® for HPLC

Assay ..... Min. 85.0 %
Volatile acids ..... Max. 0.0002 meq/g
Fe (Iron) ..... Max. 10 ppm
Pb (Lead) ..... Max. 2 ppm
Transmittance (254 nm) (0.1 mol/l) ..... Min. 80 %

Cat. No.	Pk	Pack type
153154D	250 ml	Glass bottle

Orthophosphoric acid 85% AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 85.0 %
Hypophosphorous and phosphorous acids	Passes test Ph. Eur.
Identification B	Passes test Ph. Eur.
Colouration	Max. 10 APHA
Volatile acids	Max. 0.0002 meq/g
Insoluble substances	Max. 10 ppm
Substances reducing $KMnO_4$ (as O)	Max. 10 ppm
Cl (Chloride)	Max. 2 ppm
NO_2 (Nitrite)	Max. 0.05 ppm
SO_4 (Sulphate)	Max. 30 ppm
Ca (Calcium)	Max. 20 ppm
Co (Cobalt)	Max. 1 ppm
Fe (Iron)	Max. 5 ppm
Mg (Magnesium)	Max. 10 ppm
Na (Sodium)	Max. 0.025 %
Pb (Lead)	Max. 1 ppm
Zn (Zinc)	Max. 2 ppm
Conforms to ACS	Passes test
Appearance of solution S	Passes test Ph. Eur.
Identification A	Passes test Ph. Eur.
Substances precipitated with ammonia	Passes test Ph. Eur.
Density (20/4)	1.680 to 1.710
Heavy metals (as Pb)	Max. 5 ppm
Reducing substances (as H_3PO_3)	Max. 50 ppm
Silica	Max. 0.025 %
F (Fluoride)	Max. 1 ppm
NO_3 (Nitrate)	Max. 5 ppm
As (Arsenic)	Max. 0.5 ppm
Cd (Cadmium)	Max. 1 ppm
Cu (Copper)	Max. 1 ppm
K (Potassium)	Max. 5 ppm
Mn (Manganese)	Max. 0.5 ppm
Ni (Nickel)	Max. 1 ppm
Sb (Antimony)	Max. 5 ppm
Conforms to BDH 10173	Passes test
Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
20624.262	500 ml	Glass bottle
20624.295	1 l	Glass bottle
20624.320	2,5 l	Glass bottle SAFEBREAK
20624.330	2,5 l	Plastic bottle
20624.420	2,5 l	Glass bottle

Orthophosphoric acid 85% Ph. Eur.

Assay	84.0 to 90.0 %
Appearance	Passes test
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Substances precipitated with ammonia	Passes test
Hypophosphorous and phosphorous acids	Passes test
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 50 ppm
Heavy metals (as Pb)	Max. 10 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20626.292	1 l	Glass bottle
20626.361	5 l	Plastic container
20626.463	25 l	Plastic drum

Orthophosphoric acid 85% GPR RECTAPUR®

Assay	85 to 87 %
Density (20/4)	1.680 to 1.710
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 5 ppm
NO_3 (Nitrate)	Max. 10 ppm
PO_3 + PO_2 (as H_3PO_3)	Max. 0.02 %
SO_4 (Sulphate)	Max. 50 ppm
Ca + Mg (as Ca)	Max. 100 ppm
Fe (Iron)	Max. 50 ppm
Conforms to BDH 29420	Passes test

Cat. No.	Pk	Pack type
20621.295	1 l	Glass bottle
20621.320	2,5 l	Glass bottle SAFEBREAK
20621.330	2,5 l	Plastic bottle
20621.364	5 l	Plastic bottle
20621.460	25 l	Plastic drum

Orthophosphoric acid 85% TECHNICAL

Assay	Min. 85 %

Cat. No.	Pk	Pack type
90045.5000	5 l	Plastic container

Orthophosphoric acid 85% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151401.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Orthophosphoric acid (25 - < 85%)

Phosphoric acid 50%

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-38-2
Index 015-011-00-6
EINECS: 231-633-2
UN: 1805
ADR 8,III

H_3PO_4
Density: 1.5 to 1.8 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Orthophosphoric acid 75% GPR RECTAPUR®

Assay	75 to 78 %
Density (20/4)	1.580 to 1.610
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
20623.292	1 l	Glass bottle
20623.361	5 l	Plastic bottle

Orthophosphoric acid 25% TECHNICAL

Assay	24 to 26 %

Cat. No.	Pk	Pack type
20629.463	25 l	Plastic drum

Orthophosphoric acid (10 - < 25%)

Phosphoric acid 20%

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7664-38-2
Index 015-011-00-6
EINECS: 231-633-2
UN: 1805
ADR 8,III

H_3PO_4
Density: ~ 1.1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Orthophosphoric acid 10% Reag. Ph. Eur. 1065101

Cat. No.	Pk	Pack type
87895.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Orthophosphoric acid 10% TECHNICAL

Assay	Min. 10 %
Appearance	Clear colourless liquid

Cat. No.	Pk	Pack type
31142.294	1 l	Plastic bottle

Orthophosphoric acid 150 ml/l AVS TITRINORM® for TOC

Cat. No.	Pk	Pack type
310337.2500	2,5 l	Glass bottle

Osmium standard solution, 1,000 mg/l Os in 5% hydrochloric acid

CAS 7440-04-2
EINECS: 231-114-0
UN: 1789
ADR 8,III

Os
M.W. 190.23 g/mol
Storage Temperature: Ambient temperature

NEW Osmium standard solution, 1,000 mg/l Os in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86697.180	100 ml	Plastic bottle
86697.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Ovalbumin

See Albumin from chicken egg p.21

Oxalic acid dihydrate

Ethanedioic acid dihydrate

Warning
H302+H312
P261 P302+P352 P304+P340 P312

CAS 6153-56-6
Index 607-006-00-8
EINECS: 205-634-3
UN: 3261
ADR 8,III

$HO_2CCO_2H \cdot 2H_2O$
M.W. 126.07 g/mol
Density: 1.65 g/cm³ (20 °C)
Boiling Pt: 149 to 160 °C (1013 hPa)
Melting Pt: 101 °C
Storage Temperature: Ambient temperature

Oxalic acid dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.5 to 102.5 %	IR Spectrum	Passes test
Reaction with sulphuric acid	Passes test	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 100 ppm	Insolubility in water	Max. 50 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ca (Calcium)	Max. 10 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 2 ppm
Mg (Magnesium)	Max. 5 ppm	Pb (Lead)	Max. 5 ppm
Conforms to BDH 10174			

Cat. No.	Pk	Pack type
20562.234	250 g	Plastic bottle for solids
20562.260	500 g	Plastic bottle for solids
20562.291	1 kg	Plastic bottle for solids

Oxalic acid dihydrate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.05 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
20558.296	1 kg	Plastic bottle for solids
20558.365	5 kg	Bucket (Plastic)

Oxalic acid dihydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20555.296	1 kg	Plastic bottle for solids
20555.365	5 kg	Bucket (Plastic)

Oxalic acid (< 1.1 mol/l; 2.2 N) in aqueous solution

CAS 144-62-7
EINECS: 205-634-3

$H_2C_2O_4$
Storage Temperature: Ambient temperature

Oxalic acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
30086.293	1 l	Plastic bottle

Oxalic acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
30093.297	1 l	Plastic bottle

Oxalic acid in sulphuric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 144-62-7
EINECS: 205-634-3
UN: 2796
ADR 8,II

$H_2C_2O_4$
Storage Temperature: Ambient temperature

Oxalic acid 0.5% in sulphuric acid 50% (v/v) Reag. Ph. Eur. 1061401

Cat. No.	Pk	Pack type
87883.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Oxalic acid ammonium salt monohydrate

See di-Ammonium oxalate monohydrate p.38

Oxalic acid iron (II) salt dihydrate

See Iron (II) oxalate dihydrate p.251

Oxalic acid potassium salt monohydrate

See di-Potassium oxalate monohydrate p.385

2-Oxoglutaric acid

2-Ketoglutaric acid , α-Ketoglutaric acid

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 328-50-7
EINECS: 206-330-3

$HOOCCH_2CH_2COCOOH$
M.W. 146.1 g/mol
Boiling Pt: 323 °C (1013 hPa)
Melting Pt: 112 to 116 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS 2-Oxoglutaric acid, high purity

Arsenic	< 0.0001 %
Ash	0.07 %
Chloride	<0.02 %
Heavy Metals (as Pb)	<0.002 %
Loss on Drying	0.5 %
Purity	99.5 %
Solubility (1%, Water)	NONE
Sulphate	< 0.03 %

Cat. No.	Pk	Pack type
0216-250G	250 g	Plastic bottle for solids

2-Oxopropionic acid sodium salt

See Sodium pyruvate p.455

2,2'-Oxybisethane

See Diethyl ether p.145

2,2'-Oxydiethane

See Diethyl ether p.145

PAH Mix 1, EPA 610

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Flash Pt: 56 °C
Boiling Pt: ~ 40 °C (1013 hPa)
Storage Temperature: Ambient temperature

PAH Mix 1, EPA 610

0.1 mg/ml of each component in Methanol
16 components
Acenaphthene Chrysene; Acenaphthylene Dibenz[a,h]anthracene; Anthracene Fluoranthene; Benzo[a]anthracene Fluorene; Benzo[a]pyrene Indeno[1,2,3-cd] pyrene; Benzo[b]fluoranthene Naphthalene; Benzo[g,h,i]perylene Phenanthrene; Benzo[k]fluoranthene Pyrene

Cat. No.	Pk	Pack type
124812X	1 ml	Vial

PAH MIX 3, EPA610

NEW

PAH MIX 3, EPA610

5 µg/ml : Benzo(k)fluoranthene
10 µg/ml : Benzo(a)pyrene; Dibenz(a,h)anthracene; Fluoranthene; Benz(a) anthracene; Benzo(b)fluoranthene; Benzo(g,h,i)perylene; Indeno(1,2,3-cd) pyrene; Chrysene; Pyrene
100 µg/ml : Fluorene; Naphthalene; Acenaphthylene; Anthracene; Phenanthrene; Acenaphthene

Cat. No.	Pk	Pack type
124832S	1 ml	Glass ampoule

Palcam Listeria Agar

See Microbiology

Palladium standard solution, 10,000 mg/l Pd in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-05-3
EINECS: 231-115-6
UN: 1789
ADR 8,II

Pd
M.W. 106.42 g/mol
Storage Temperature: Ambient temperature

Palladium standard solution, 10,000 mg/l Pd in 10% hydrochloric acid (from Pd) ARISTAR® standard for ICP

Pd in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455772X	100 ml	Plastic bottle

Supplied with certificate of analysis.

Palladium standard solution, 1,000 mg/l Pd in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-05-3
EINECS: 231-115-6
UN: 1789
ADR 8,II

Pd
M.W. 106.42 g/mol
Storage Temperature: Ambient temperature

Palladium standard solution, 1,000 mg/l Pd in 10% hydrochloric acid (from Pd) ARISTAR® standard for ICP

Pd in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455762M	100 ml	Plastic bottle
455764X	500 ml	Plastic bottle

Supplied with certificate of analysis.

Palladium standard solution, 1,000 mg/l Pd in 5% hydrochloric acid

CAS 7440-05-3
EINECS: 231-115-6
UN: 1789
ADR 8,III

Pd
M.W. 106.42 g/mol
Storage Temperature: Ambient temperature

NEW

Palladium standard solution, 1,000 mg/l Pd in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86700.180	100 ml	Plastic bottle
86700.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Palladium (II) chloride

Palladium dichloride

Warning
H319 H315 H317
P280 P302+P352 P305+P351+P338

CAS 7647-10-1
EINECS: 231-596-2
UN: 3260
ADR 8,III

$PdCl_2$
M.W. 177.33 g/mol
Density: 4 g/cm³ (20 °C)
Melting Pt: 678 °C
Storage Temperature: Ambient temperature

Palladium (II) chloride 59% Pd hydrogenation catalyst

Assay (on dried substance) ..... Min. 99 %

Cat. No.	Pk	Pack type
26136.083	1 g	Glass bottle

Palladium (II) chloride in hydrochloric acid (10-25%)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7647-10-1
EINECS: 231-596-2
UN: 3264
ADR 8,II

$PdCl_2$
M.W. 177.33 g/mol
Storage Temperature: Ambient temperature

Palladium (II) chloride 0.4% in hydrochloric acid 13.5% Reag. Ph. Eur. 1061501

Cat. No.	Pk	Pack type
87884.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Palladium dichloride

See Palladium (II) chloride p.336

Pancreatin

Danger
H319 H335 H315 H334 H317
P280 P302+P352 P304+P341 P305+P351+P338
P342+P311

CAS 8049-47-6
EINECS: 232-468-9
Storage Temperature: 2 - 8°C

Pancreatin, 150 U/mg, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26145.186	100 g	Plastic bottle for solids

Papanicolaou's solution EA 50

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

NEW Papanicolaou's solution EA 50 Q PATH® for microscopy

Ready to use solution for Papanicolaou cytological staining.

IVD

Cat. No.	Pk	Pack type
10047011.	6 x 450 ml	Pouch
10047111.	2,5 l	Plastic bottle
00607141.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Papanicolaou's solution (OG 6)

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Storage Temperature: Ambient temperature

NEW Papanicolaou's solution (OG 6) Q PATH® for microscopy

Ready to use solution for Papanicolaou cytological staining in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047010.	6 x 450 ml	Pouch
10047110.	2,5 l	Plastic container
00607136.	5 l	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Papanicolaou's staining solution Orange G (EA 50)

Danger
H225
P210 P243 P280
UN: 1992
ADR 3,III
Density: 0.82 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Papanicolaou's staining solution Orange G (EA 50) GURR® for microscopical staining

IVD

Absorption maximum λ 1 ..... 630 to 634 nm
Absorption maximum λ 2 ..... 530 to 534 nm
Absorbance A1,λ1 (λmax; diluted 1:200; 1 cm) ..... 0.120 to 0.300
Absorbance A2,λ2 (λmax; diluted 1:200; 1 cm) ..... 1.900 to 2.300
Suitability for microscopy (Vaginal smear) ..... Passes test

Cat. No.	Pk	Pack type
351695T	1 l	Glass bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Papanicolaou's staining solution Orange G (OG 6)

Danger
H225
P210 P243 P280
UN: 1993
ADR 3,II
Density: 0.83 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Papanicolaou's staining solution Orange G (OG 6) GURR® for microscopical staining

IVD

Absorption maximum λ1 ..... 495 to 500 nm
Absorption maximum λ2 ..... 475 to 485 nm
Absorbance A1,λ1 (λmax; diluted 1:100; 1 cm) ..... 0.600 to 0.800
Absorbance A2,λ2 (λmax; diluted 1:100; 1 cm) ..... 0.600 to 0.800
Suitability for microscopy (Vaginal smear) ..... Passes test
Nuclei ..... Blue to dark violet
Cyanophilic cytoplasm ..... Blue-green
Eosinophilic cytoplasm ..... Pink

Cat. No.	Pk	Pack type
350405X	1 l	Plastic bottle

Technical data sheet and instructions available on vwr.com

Paraffin, solidification point 52-54°C

CAS 8002-74-2
EINECS: 232-315-6
Density: 0.9 g/cm³ (20 °C)

Paraffin, solidification point 52-54°C, pellets Ph. Eur.

Appearance ..... White mass
Identification A ..... Passes test
Identification C ..... Passes test
Acidity or alkalinity ..... Passes test
Polycyclic aromatic hydrocarbons ..... Passes test
SO_4 (Sulphate) ..... Max. 150 ppm
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
26157.291	1 kg	Plastic bottle for solids

Paraffin, solidification point 52-54°C, pellets TECHNICAL

Melting point ..... 52 to 54 °C

Cat. No.	Pk	Pack type
26155.294	1 kg	Plastic bottle for solids

Paraffin, solidification point 56-58°C

CAS 8002-74-2
EINECS: 232-315-6
Flash Pt: Min. 100 °C
Density: 0.9 g/cm³ (20 °C)

Wax Cyto-paraffin 56-58°C MICROCOLOR® for histology

Contains 0,05% of yellow beeswax

Identification ..... Passes test

Cat. No.	Pk	Pack type
26177.290	1 kg	Plastic bottle for solids

Technical data sheet and instructions available on vwr.com

Paraffin, solidification point 56-58°C, in pastille form GURR®

Appearance (65°C) ..... Passes test
Congealing range ..... 55 to 58 °C
Cutting/ ribboning ..... Passes test

Cat. No.	Pk	Pack type
361077E	10 kg	Plastic bag

Technical data sheet and instructions available on vwr.com

Paraffin, solidification point 58-60°C

CAS 8002-74-2
EINECS: 232-315-6

Paraffin, solidification point 58-60°C, granules TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26154.291	1 kg	Plastic bottle for solids

Paraffin wax blended with synthetic polymers and DMSO, solidification point 56-58°C

CAS 8002-74-2
EINECS: 232-315-6

Wax Paramat extra, in pastille form GURR® for histology

Paraffin wax blended with synthetic polymers and DMSO

Appearance (molten after 7 days; 65°C) ..... Clear
Cutting/ ribboning ..... Passes test
Congealing temperature ..... 55 to 58 °C

Cat. No.	Pk	Pack type
361334C	2,5 kg	Plastic bag
361336E	10 kg	Plastic bag
361337F	25 kg	Plastic bag

Technical data sheet and instructions available on vwr.com

Paraffin wax blended with synthetic polymers, solidification point 56-58°C

CAS 8002-74-2
EINECS: 232-315-6

Wax Paramat, in pastille form GURR® for histology

Paraffin wax blended with synthetic polymers

Appearance (molten after 7 days; 65°C) ..... Clear
Cutting/ ribboning ..... Passes test
Congealing temperature ..... 55 to 58 °C

Cat. No.	Pk	Pack type
361144V	2,5 kg	Plastic bag
361147B	10 kg	Plastic bag
361148C	25 kg	Plastic bag

Technical data sheet and instructions available on vwr.com

NEW Paraffin Q PATH® for microscopy

Wax (56-58 °C) for mounting histological samples.

IVD

Cat. No.	Pk	Pack type
10048500.	8 x 1 kg	Plastic bag
10048501.	2,5 kg	Plastic bag
10048502.	8 kg	Bag-in-box (Cubitainer)

IVD registered. Instructions for use on vwr.com- just search for the product.

Paraffin, liquid

Vaseline oil , Light liquid paraffin

CAS 8012-95-1
EINECS: 232-384-2
Flash Pt: 215 °C (closed cup)
Density: 0.86 g/cm³ (20 °C)
Boiling Pt: 300 to 500 °C (1013 hPa)

Paraffin, liquid Ph. Eur.

Appearance	Clear oily liquid
Identification A	Passes test
Identification C	Passes test
Acidity or alkalinity	Passes test
Relative density	0.810 to 0.875
Viscosity	25 to 80 mPa.s
Polycyclic aromatic hydrocarbons	Passes test
Readily carbonisable substances	Passes test
Solid paraffins	Passes test
Residual solvents	Unlikely by manuf.process

Cat. No.	Pk	Pack type
8577.5000	5 l	Plastic container

Paraffin, liquid GPR RECTAPUR®

Polycyclic aromatic hydrocarbons	Passes test
Readily carbonisable substances	Passes test
Solid paraffins	Passes test
Acidity	Max. 0.002 meq/g
Colouration	Max. 20 APHA
Density (20/4)	0.860 to 0.885
Viscosity (40°C)	Min. 34.5 cSt
Ignition residue (SO_4)	Max. 0.1 %

Cat. No.	Pk	Pack type
24679.291	1 l	Plastic bottle
24679.320	2,5 l	Plastic bottle
24679.360	5 l	Plastic bottle
24679.462	25 l	Plastic drum

Paraffin, liquid

Sterile liquid paraffin is mostly used in microbiology as a vehicle to improve the anaerobic culture media as : O / F, Decarboxylase medium, MIO, etc..
Typically the product (approx 2 ml) is aseptically dispensed on the surface of the sterile culture medium in a culture tube.

- In a tightly closed container with good seal, protected from light
- Colourless

Description	Pk	Cat. No.
Paraffin, sterile, 100 ml	100 ml	301440ZK

Paraffin, liquid TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24677.294	1 l	Plastic bottle
24677.363	5 l	Plastic container

Paraffin, highly liquid

Paraffin liquid light

CAS 8012-95-1
EINECS: 232-384-2
Flash Pt: 195 °C
Density: 0.86 g/cm³ (20 °C)
Boiling Pt: 300 to 450 °C (1013 hPa)

Paraffin, highly liquid, colourless GPR RECTAPUR®

Density (20/20)	0.818 to 0.875
Viscosity (40°C)	Max. 33.5 cSt

Cat. No.	Pk	Pack type
294365H	2,5 l	Plastic bottle

Paraformaldehyde

Warning
H228 H351 H302+H332 H319 H335 H315 H317
P201 P210 P240 P281 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 30525-89-4
UN: 2213
ADR 4.1,III
Flash Pt: 70 °C

$(CH_2O)n$
M.W. 30.03 g/mol
Density: 1.46 g/cm³ (20 °C)
Boiling Pt: 135 to 136 °C (13 torr)
Melting Pt: 123 °C
Storage Temperature: Ambient temperature

Paraformaldehyde, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
28794.295	1 kg	Plastic bottle for solids
28794.364	5 kg	Bucket (Plastic)
28794.460	25 kg	Plastic drum

Pararosaniline solution, decolourised

Danger
H350
P201 P281 P308+P313
Density: ~ 1.01 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Pararosaniline solution, decolourised Reag. Ph. Eur. 1062201

Cat. No.	Pk	Pack type
87885.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Patent blue V calcium salt

Bis[hydrogen [4-[4-(diethylamino)-5'-hydroxy-2',4'-disulphonatobenzhydrylidene]cyclohexa-2,5-dien-1-ylidene] diethylammonium], calcium salt

CAS 3536-49-0
EINECS: 222-573-8

$C_{54}H_{62}CaN_4O_{14}S_4$
M.W. 1159.45 g/mol
Melting Pt: 200 °C
Storage Temperature: Ambient temperature

Patent blue V calcium salt TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
34233.128	10 g	Glass bottle

Patton-Reeders reagent (Calconcarboxylic acid)

2,2'-Dihydroxy-4'-sulpho-1,1'-azonaphthalene-3-carboxylic acid , Cal-Red®

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 3737-95-9
EINECS: 223-117-0

$C_{21}H_{14}N_2O_7S$
M.W. 438.42 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

Patton-Reeders reagent (Calconcarboxylic acid) analytical reagent

Metal indicator; 3-Hydroxy-4-(2-hydroxy-4-sulfo-1-naphthylazo) naphthalene-2-carboxylic acid ; calconcarboxylic acid

Suited for calcium reagent ..... Passes test

Cat. No.	Pk	Pack type
20326.136	25 g	Plastic bottle for solids

PBS buffer solid

Storage Temperature: Ambient temperature

PBS buffer solid for biotechnology

1X PBS solution contains 137 mM Sodium Chloride, 2.7 mM Potassium Chloride, and 10 mM Phosphate Buffer. Each tablet prepares 100 ml of a 1X solution.

pH (1 tablet/100 ml Water) @25 °C ..... 7.3 - 7.5

Cat. No.	Pk	Pack type
E404-100TABS	100 Tab.	Plastic bottle for solids
E404-200TABS	200 Tab.	Plastic bottle for solids

PBS buffer solid for 10x concentrated solution

Storage Temperature: Ambient temperature

PBS buffer solid for 10x concentrated solution, ultrapure

For cell culture applications. Each Ready-Pack™ prepares 1 l of 10x concentrate.

Conductivity (1.0%, Water) ..... 13500 - 17000 umhos
pH (1.0%, Water) @25 °C ..... 7.3 - 7.5
Solubility (1.0%, Water) ..... PASS

Cat. No.	Pk	Pack type
0780-2PK	2	Set of items

PBS buffer solution 20x concentrate (phosphate buffered saline)

Storage Temperature: Ambient temperature

PBS buffer solution 20x concentrate (phosphate buffered saline), ultrapure

Prepares 10 or 20 l of 1x buffer. A 1x solution of phosphate buffered saline (PBS) contains 137 mM sodium chloride, 2.7 mM potassium chloride and 10 mM phosphate buffer.

pH (1x) @25 °C ..... 7.4 - 7.6

Cat. No.	Pk	Pack type
E703-500ML	500 ml	Plastic bottle
E703-1L	1 l	Plastic bottle

PBS buffer solution 10x concentrate (phosphate buffered saline)

Storage Temperature: Ambient temperature

PBS buffer solution 10x concentrate (phosphate buffered saline), ultrapure

Conductivity (10%, Water) @25 °C ..... 14000 - 17800 umhos
DNase ..... NONE
pH (10%, Water) @25 °C ..... 7.3 - 7.5
pH @25 °C ..... 6.7 - 6.9
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
J373-4L	4 l	Bag-in-box (Cubitainer)

PBS buffer solution 10x concentrate (phosphate buffered saline) USP, ultrapure

Dulbecco's formulation.

DNase ..... NONE
pH @25 °C (1:10, Water) ..... 6.6 - 7.2
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
K813-500ML	500 ml	Plastic bottle

Product is tested to USP specifications

PBS buffer solution (phosphate buffered saline)

Storage Temperature: Ambient temperature

PBS buffer solution (phosphate buffered saline), ultrapure

For cell culture applications.

Conductivity (1.0%, Water) ..... 13500 - 17000 umhos
pH (1.0%, Water) @25 °C ..... 7.3 - 7.5
Solubility (1.0%, Water) ..... PASS

Cat. No.	Pk	Pack type
0780-10L	10 l	Plastic bottle for solids
0780-50L	50 l	Plastic bottle for solids

PBS buffer solution (phosphate buffered saline), ultrapure

Dulbecco's formulation.

Bioburden ..... NONE
DNase ..... NONE
pH @25 °C (undiluted) ..... 7.1 - 7.7
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
K812-500ML	500 ml	Plastic bottle
K812-20L	20 l	Bag-in-box (Cubitainer)

PBS buffer solution (phosphate buffered saline) pH 7.4 for biotechnology, sterile

1x sterile solution, pH 7.4.

Conductivity @25 °C ..... REPORT
DNase Activity ..... NONE
pH @25 °C ..... 7.30 - 7.40
Sterility ..... PASS

Cat. No.	Pk	Pack type
E504-100ML	100 ml	Plastic bottle
E504-500ML	500 ml	Plastic bottle

PBS buffer (phosphate buffered saline) with high phosphate

Storage Temperature: Ambient temperature

PBS buffer (phosphate buffered saline) with high phosphate pH 7.2

Irradiated solution, pH 7.2, for washing blots

NaCl 8,77 g/l
Na_2HPO_4, $12H_20$ 19,2 g/l
NaH_2PO_4, $2H_2O$ 6,55g/l
pH (20 °C)..... 7.15 to 7.25

Cat. No.	Pk	Pack type
444037E	10 l	Bag-in-box (Cubitainer)

PBS buffer solution 10x concentrate (phosphate buffered saline) with low phosphate

Storage Temperature: Ambient temperature

PBS buffer solution 10x concentrate (phosphate buffered saline) with low phosphate

Irradiated concentrate of PBS, suitable for use in washing cells after dilution.

KCl..... 2.0 g/l
NaCl..... 70.1 g/l
$Na_2HPO_4.12H_2O$..... 12.8 g/l
$NaH_2PO_4.2H_2O$..... 4.4 g/l

Cat. No.	Pk	Pack type
437117K	10 l	Bag-in-box (Cubitainer)

PBS buffer (phosphate buffered saline) with low phosphate

Storage Temperature: Ambient temperature

PBS buffer (phosphate buffered saline) with low phosphate

Irradiated solution for use in washing cells

KCl..... 0.2 g/l
NaCl..... 7.01 g/l
$Na_2HPO_4.12H_2O$..... 1.28 g/l
$NaH_2PO4.2H_2O$..... 0.44 g/l

Cat. No.	Pk	Pack type
444057Y	10 l	Bag-in-box (Cubitainer)

PBS / TWEEN 20 buffer

VWR CHEMICALS PBS / TWEEN 20 buffer, ultrapure

Prepares 10 l of PBS-Tween® 20 (0.05%) solution.

pH (1:20, Water) @25 °C ..... 7.50 - 7.70
Titration..... 230 - 250 mM

Cat. No.	Pk	Pack type
K875-500ML	500 ml	Plastic bottle

PBS buffer pH 7.4 with 0.05% TWEEN 20

VWR CHEMICALS PBS buffer pH 7.4 with 0.05% TWEEN 20, proteomics grade

Each pack prepares 1 l of 1x PBS-Tween® 20 (0.05%) solution.

Chloride Concentration..... 132 - 144 mM
Conductivity @25 °C (10.38g/L Water)..... 15.5 - 16.5
pH @25 °C (10.38g/ L Water)..... 7.2 - 7.6

Cat. No.	Pk	Pack type
M245-10.4G-5PK	52 g	Set of items

PBS-TWEEN pH 7.5

VWR CHEMICALS PBS-TWEEN pH 7.5, ultrapure

With 0.05% Tween®.

pH @25 °C ..... 7.4 - 7.6

Cat. No.	Pk	Pack type
E715-500ML	500 ml	Plastic bottle
E715-1L	1 l	Plastic bottle

PCA

See Microbiology

PCA agar

See Microbiology

Taq DNA polymerase

VWR *Taq* DNA polymerase is an ultra-pure, thermostable, recombinant DNA polymerase, which provides robust PCR performance in a wide range of PCR applications, without time-consuming optimisation. The enzyme is isolated from *Thermus aquaticus* and has a molecular weight of approximately 94 kDa. VWR *Taq* DNA polymerase has both a 5′ and 3′ DNA polymerase and a double strand 5′ to 3′ exonuclease activity. It leaves an A overhang, which makes the enzyme ideal for TA cloning. Red *Taq* DNA polymerase is a blend of *Taq* DNA polymerase combined with an inert red dye. The dye enables quick visual recognition of reactions to which enzyme has been added, as well as confirmation of complete mixing.

- Most suitable choice for routine applications where high fidelity is not required
- High performance, thermostable DNA polymerase
- Optimal for TA cloning

Taq DNA polymerase concentration: 5 Units/µl

10X Key Buffer: Tris-HCL pH 8,5, $(NH_4)_2SO_2$, 15 mM $MgCl_2$, 1% Tween-20®

10X Extra Buffer: 100 mM Tris-HCL pH 8,3, 500 mM KCl, 15 mM $MgCl_2$, 1% Triton X-100

10X Mg-Free Key Buffer: Tris-HCL pH 8,5, $(NH_4)_2SO_2$, 1% Tween-20®

10X Mg-Free Extra Buffer: Tris-HCL pH 8,3, KCl, 1% Triton X-100

VWR *Taq* DNA polymerase is supplied with both Key Reaction Buffer and Extra Reaction Buffer.

Description	Pk	Cat. No.
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	250 EU	733-1300
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	500 EU	733-1301
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	1.000 EU	733-1302
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	2.500 EU	733-1819
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	5.000 EU	733-1820
Taq DNA polymerase, 10X Key Buffer (15 mM $MgCl_2$), 10X Extra Buffer (15 mM $MgCl_2$), 25 mM $MgCl_2$	10.000 EU	733-1303

EU = Units

Taq DNA polymerase MasterMixes

VWR *Taq* DNA polymerase MasterMix is a ready to use 1,1X or 2X reaction mix. Simply add primers, template and water to carry out primer extensions and other molecular biology applications.

Red *Taq* DNA polymerase is a blend of *Taq* DNA polymerase combined with an inert red dye. The dye enables visual recognition of reactions to which enzyme has been added, as well as confirmation of complete mixing. Red *Taq* DNA polymerase can be directly loaded onto an agarose gel without addition of electrophoresis loading buffers.

Description	Pk	Cat. No.
Taq DNA polymerase 1,1X MasterMix, 1,5 mM $MgCl_2$	2.500 Tests	733-1314
Taq DNA polymerase 1,1X MasterMix, 1,5 mM $MgCl_2$	500 Tests	733-2540
Taq DNA polymerase 1,1X MasterMix, 2,0 mM $MgCl_2$	2.500 Tests	733-1315
Taq DNA polymerase 1,1X MasterMix, 2,0 mM $MgCl_2$	500 Tests	733-2541
Taq DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	2.500 Tests	733-1316
Taq DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	500 Tests	733-2542
Taq DNA polymerase 2X MasterMix, 2,0 mM $MgCl_2$	2.500 Tests	733-1317
Taq DNA polymerase 2X MasterMix, 2,0 mM $MgCl_2$	500 Tests	733-2543
Red *Taq* DNA polymerase 1,1X MasterMix, 1,5 mM $MgCl_2$	2.500 Tests	733-1318
Red *Taq* DNA polymerase 1,1X MasterMix, 1,5 mM $MgCl_2$	500 Tests	733-2544
Red *Taq* DNA polymerase 1,1X MasterMix, 2,0 mM $MgCl_2$	2.500 Tests	733-1319
Red *Taq* DNA polymerase 1,1X MasterMix, 2,0 mM $MgCl_2$	500 Tests	733-2545
Red *Taq* DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	5.000 Tests	733-2130
Red *Taq* DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	10.000 Tests	733-2131
Red *Taq* DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	20.000 Tests	733-2132
Red *Taq* DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	2.500 Tests	733-1320
Red *Taq* DNA polymerase 2X MasterMix, 1,5 mM $MgCl_2$	500 Tests	733-2546
Red *Taq* DNA polymerase 2X MasterMix, 2,0 mM $MgCl_2$	2.500 Tests	733-1321
Red *Taq* DNA polymerase 2X MasterMix, 2,0 mM $MgCl_2$	500 Tests	733-2547

Tests = Reactions

AccuPOL DNA polymerase

AccuPOL DNA polymerase is a thermostable enzyme that possesses 3' to 5' exonuclease proofreading ability, which enables the polymerase to correct nucleotide misincorporation errors. AccuPOL is recommended for applications which require extremely high fidelity with low error rate. PCR fragments generated with AccuPOL DNA polymerase are also ideal for blunt end cloning.

Optimal reaction conditions are achieved by using the 10X AccuPOL standard buffer containing $MgCl_2$ provided with the enzyme. A separate vial of 25 mM $MgCl_2$ is also included in case a higher $MgCl_2$ concentration is required for a specific reaction.

- The choice for high fidelity amplifications
- Provides higher fidelity than *Taq* DNA polymerase
- Optimal for blunt end cloning
- Processes <3 kb with extremely high fidelity

Description	Pk	Cat. No.
AccuPOL DNA polymerase (2,5 U/µl), with 10X standard buffer, 25 mM $MgCl_2$	250 EU	733-1324
AccuPOL DNA polymerase (2,5 U/µl), with 10X standard buffer, 25 mM $MgCl_2$	500 EU	733-1325
AccuPOL DNA polymerase (2,5 U/µl), with 10X standard buffer, 25 mM $MgCl_2$	1.000 EU	733-1326

EU = Units

dNTP

Ready to use molecular biology grade dNTP mixes and dNTP sets.

The dNTP mix is designed to save hands-on time for researchers and reduce the possibility of contamination by reducing pipetting. The dNTP solutions are also available in sets of four individual dNTPs, each 100 mM. Both are convenient for use in DNA polymerisation reactions, DNA labelling and sequencing processes.

- Available as pre-mixed 10 mM or 25 mM solutions, or as sets of individual 100 mM dNTP solutions
- Both pre-mixed and sets have been functionally tested in long PCR
- Purity >98% by HPLC
- Supplied in solution at pH 7,0

Description	Pk	Cat. No.
dNTP Mix, 10 mM of each dA, dC, dG, and dT, 2×500 µl	1.000 µl	733-1363
dNTP Mix, 25 mM of each dA, dC, dG, and dT, 2×1 ml	2.000 µl	733-1854
dNTP Set, separate vials of dA, dC, dG, dT, each 100 mM, 16×250 µl	1 SET	733-1855
dNTP Set, separate vials of dA, dC, dG, dT, each 100 mM, 4×250 µl	1 SET	733-1364

PCTFE 800

See Poly(chlorotrifluoroethylene) 800 ..... p.366

PCTFE grease

See Poly(chlorotrifluoroethylene) grease p.366

PEG 300

See Polyethylene glycol 300 ..... p.367

PEG 400

See Polyethylene glycol 400 ..... p.367

PEG 1,500

See Polyethylene glycol 1,500 ..... p.367

PEG 4,000

See Polyethylene glycol 4,000 ..... p.366

PEG 6,000

See Polyethylene glycol 6,000 ..... p.366

Penicillin G potassium salt

6-(2-Phenylacetamido)penicillanic acid potassium salt , Benzylpenicillin potassium salt , Potassium [2S-(2α,5α,6β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate

Warning
H317

CAS 113-98-4
EINECS: 204-038-0

$C_{16}H_{17}KN_2O_4S$
M.W. 372.49 g/mol
Density: 1.359 g/cm³ (20 °C)
Melting Pt: 214 to 217 °C
Storage Temperature: 2 - 8°C

Penicillin G potassium salt

Cat. No.	Pk	Pack type
441972W	25 g	Plastic bottle for solids

Penicillin G sodium salt

6-(2-Phenylacetamido)penicillanic acid sodium salt , Benzylpenicillin sodium salt , Sodium [2S-(2α,5α,6β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate

CAS 69-57-8
EINECS: 200-710-2

$C_{16}H_{17}N_2NaO_4S$
M.W. 356.38 g/mol
Density: 1.38 g/cm³ (20 °C)
Melting Pt: 255 °C
Storage Temperature: Ambient temperature

Penicillin G sodium salt for tissue culture

Aseptically prepared, gamma-irradiated, tissue culture tested. 10,000 U/ml solution when reconstituted in 20 ml of sterile water.

Expiration Date	REPORT
pH (6 %, Water) @25 °C	5.0 - 7.5
Potency (Anhydrous)	1500 - 1750 U/mg
Solubility (Vial Contents, 20 ml Water)	PASS
Sterile (Gamma-Irradiated)	PASS
USP Grade Penicillin G Sodium	PASS

Cat. No.	Pk	Pack type
E480-20ML	20 ml	Vial

Penicillin/Streptomycin 100x, Tissue Culture Grade

Penicillin/Streptomycin 100x, Tissue Culture Grade

Sterile, endotoxin tested liquid stable antibiotic solution for tissue culture applications. Targets gram-positive and gram-negative bacteria. 100x solution; 10,000 U/ml penicillin; 10 mg/ml streptomycin.

Antimicrobial Activity (1:100)	PASS
Endotoxins (1:100)	0.25 EU/mL
Osmolality	REPORT
pH @25 °C	REPORT
USP Sterility	PASS

Cat. No.	Pk	Pack type
K952-100ML	100 ml	Plastic bottle

Penicillin Streptomycin Y-IRR tissue culture grade

Penicillin Streptomycin Y-IRR tissue culture grade

Aseptic, gamma-irradiated, tissue culture tested. 10,000 U/ml penicillin. 10 mg/ml streptomycin solution when reconstituted in 20 ml of sterile water.

Expiration Date	REPORT
Solubility (Vial Contents, 20ml Water)	PASS
Sterile (Gamma-Irradiated)	PASS
USP Grade Penicillin G, Sodium	PASS
USP Grade Streptomycin Sulfate	PASS

Cat. No.	Pk	Pack type
E490-20ML	20 ml	Vial

Penicillin Streptomycin Amphotericin B, for for biotechnology

Penicillin Streptomycin Amphotericin B, for for biotechnology

Aseptic, gamma-irradiated, tested for tissue culture. 10,000 U/ml penicillin; 10 mg/ml streptomycin; 25 µg/ml amphotericin B when reconstituted in 20 ml of sterile water.

Amphotericin B	25 ug/mL
Penicillin G Sodium Salt	10000 u/mL
Streptomycin Sulfate	10 mg/mL

Cat. No.	Pk	Pack type
E485-20ML	20 ml	Vial

Penicillinase (ß-Lactamase)

CAS 9001-74-5
EINECS: 232-628-8
Storage Temperature: 2 - 8°C

Penicillinase (ß-Lactamase)

A freeze-dried product with >3000 ß-l units per vial.
One unit of ß-l activity is defined as the amount of enzyme that will catalyse the hydrolysis of 1.0 µmole of benzylpenicillin per minute at 25°C and pH 7.0.

Cat. No.	Pk	Pack type
390843G	1 Vial	Vial

(2R,3S,4S,5R)-Pentahydroxyhexanal

See D(+)-Galactose p.194

Pentamethylene

See Cyclopentane p.129

n-Pentane

Danger
H225 H304 H336 H411
EUH066
P210 P243 P280 P273 P301+P331 P304+P340
P309+P310

CAS 109-66-0
Index 601-006-00-1
EINECS: 203-692-4
UN: 1265
ADR 3,II
Flash Pt: -40 °C

Not to be used as power or heating fuel.

$H_3C(CH_2)_3CH_3$
M.W. 72.15 g/mol
Density: 0.63 g/cm³ (20 °C)
Boiling Pt: 35 to 36 °C (1013 hPa)
Melting Pt: -130 °C
Storage Temperature: Ambient temperature

n-Pentane 99% HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99 %
Water ..... Max. 0.01 %
Non-volatile residue ..... Max. 0.0005 %
Acidity ..... Max. 0.0005 meq/g
Alkalinity ..... Max. 0.0002 meq/g
Fluorescence (as quinine) (254 nm) ..... Max. 0.001 ppm
Fluorescence (as quinine) (365 nm) ..... Max. 0.001 ppm
Transmittance (200 nm) ..... Min. 10 %
Transmittance (210 nm) ..... Min. 40 %
Transmittance (215 nm) ..... Min. 70 %
Transmittance (222 nm) ..... Min. 90 %
Transmittance (240 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
83632.320	2,5 l	Glass bottle

n-Pentane 95% HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 95 %
Acidity or alkalinity ..... Max. 0.0002 meq/g
Evaporation residue ..... Max. 5 ppm
Water ..... Max. 0.01 %
Transmittance (200 nm) ..... Min. 56 %
Transmittance (210 nm) ..... Min. 71 %
Transmittance (220 nm) ..... Min. 89 %
Transmittance (230 nm) ..... Min. 98 %
Transmittance (240 nm) ..... Min. 99 %

Cat. No.	Pk	Pack type
83993.320	2,5 l	Glass bottle

NEW n-Pentane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC) ..... Min. 99.0 %
Acidity ..... Max. 0.0005 meq/g
Residue on evaporation ..... Max. 0.0005 %
Water ..... Max. 0.01 %
Transmittance (200 nm) ..... Min. 20 %
Transmittance (210 nm) ..... Min. 60 %
Transmittance (220 nm) ..... Min. 85 %
Transmittance (230 nm) ..... Min. 95 %
Transmittance (240 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
84714.290	1 l	Glass bottle
84714.320	2,5 l	Glass bottle

n-Pentane PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99 %
Acidity ..... Max. 0.0005 meq/g
Evaporation residue (100°C) ..... Max. 0.0005 %
Water ..... Max. 0.01 %
Organic residue (as Octanol) (GC/FID) ..... Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83964.320	2,5 l	Glass bottle

n-Pentane AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.0 %
Colouration ..... Max. 10 APHA
Distillation range ..... 35 to 37 °C
Evaporation residue ..... Max. 10 ppm
Water ..... Max. 100 ppm
Acidity ..... Max. 0.004 meq/g
Density (20/4) ..... 0.625 to 0.632
Aromatics (as C_6H_6) ..... Max. 50 ppm
Total S (as SO_4) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
26185.297	1 l	Glass bottle
26185.322	2,5 l	Glass bottle
26185.460	25 l	Metal drum

n-Pentane GPR RECTAPUR®

Assay ..... Min. 99.0 %
Density (20/4) ..... 0.625 to 0.632
Distillation range ..... 34 to 38 °C
Evaporation residue ..... Max. 50 ppm
Conforms to BDH 29451 ..... Passes test

Cat. No.	Pk	Pack type
26206.291	1 l	Glass bottle
26206.325	2,5 l	Glass bottle
26206.360	5 l	Aluminium bottle
26206.460	25 l	Metal drum

n-Pentane TECHNICAL

Assay ..... Min. 95 %
Distillation range ..... 35 to 37 °C

Cat. No.	Pk	Pack type
26192.292	1 l	Glass bottle
26192.361	5 l	Aluminium bottle
26192.463	25 l	Metal drum
26192.554	200 l	Metal drum

iso-Pentane

See 2-Methylbutane p.289

1-Pentanesulphonic acid sodium salt

Sodium 1-pentanesulphonate

CAS 22767-49-3
EINECS: 245-208-4

$C_5H_{11}O_3SNa$
M.W. 174.2 g/mol
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

1-Pentanesulphonic acid sodium salt HiPerSolv CHROMANORM® for HPLC

Assay (calculated on dried substance)	Min. 99 %
IR Spectrum	Passes test
pH (10 %)	5.5 to 7.5
Loss on drying (120°C; under vacuum)	Max. 2 %
Transmittance (200 nm) (0.005 mol/l)	Min. 70 %
Transmittance (220 nm) (0.005 mol/l)	Min. 90 %
Transmittance (250 nm) (0.005 mol/l)	Min. 98 %

Cat. No.	Pk	Pack type
152812V	25 g	Plastic bottle for solids
152813W	100 g	Plastic bottle for solids

1-Pentanol

1-Pentyl alcohol , 1-Hydroxy pentane , Butyl carbinol , n-Amyl alcohol

Danger
H226 H332 H335 H315
P280 P302+P352 P304+P340 P309+P311

CAS 71-41-0
Index 603-200-00-1
EINECS: 200-752-1
UN: 1105
ADR 3,III
Flash Pt: 48 °C

$H_3C(CH_2)_3CH_2OH$
M.W. 88.15 g/mol
Density: 0.81 g/cm³ (20 °C)
Boiling Pt: 137.9 °C (1013 hPa)
Melting Pt: -79 °C
Storage Temperature: Ambient temperature

1-Pentanol AnalaR NORMAPUR® analytical reagent

Assay	Min. 98.5 %	Boiling point	137 to 139 °C
Density (20/4)	0.813 to 0.817	Non-volatile residue	Max. 50 ppm
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20791.292	1 l	Glass bottle

1-Pentanol TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
20800.294	1 l	Glass bottle

iso-Pentanol

See Isoamyl alcohol p.253

1-Pentyl alcohol

See 1-Pentanol p.346

Pepsin

Danger
H319 H335 H315 H334
P280 P285 P305+P351+P338 P309+P311

CAS 9001-75-6
Index 647-008-00-6
EINECS: 232-629-3
Storage Temperature: 2 - 8°C

Pepsin, 1:3.000, proteomics grade

Activity	1:3000 - 1:3500
E. Coli	NONE
Heavy Metals	0.004 %
Salmonella	NONE
Solubility (2%, Water)	PASS

Cat. No.	Pk	Pack type
M142-250G	250 g	Plastic bottle for solids

Pepstatin A

CAS 26305-03-3
EINECS: 247-600-0

$C_{34}H_{63}N_5O_9$
Storage Temperature: 2 - 8°C

Pepstatin A, ultrapure

An aspartic acid protease inhibitor of pepsin, renin, and cathepsin D. Also an inhibitor of the HIV protease. Not water soluble.

FTIR	PASS
Melting Point	220 - 240 °C
Optical Rotation (0.5%, MeOH)	-95 to -85 °
Purity (HPLC)	75 %

Cat. No.	Pk	Pack type
J583-5MG	5 mg	Glass bottle
J583-25MG	25 mg	Glass bottle

Pepstatin A, proteomics grade

FTIR	PASS
Melting Point	220 - 240 °C
Optical Rotation (0.5%, MeOH)	-95 to -85 °
Purity (HPLC)	75 %

Cat. No.	Pk	Pack type
M183-5MG	5 mg	Glass bottle

Peptide synthesis solvents

High purity solvents to meet the demanding requirements of peptide synthesis
- Guaranteed low water content
- Evaporation residue less than 10 ppm
- Guaranteed low free amine content
- Other impurities affecting peptide synthesis yields eliminated by chemical and physical treatments

Purified from selected raw materials under ISO 9001 conditions, these solvents are also :
- Filtered at 0.2 µm and packed under nitrogen
- Fitted with caps with PTFE liners to prevent contamination
- Packed in 2.5 L and 1 L glass bottles with DIN 45 closures

Description	Page	Pk	Cat. No.
N,N-Dimethylformamide for peptide synthesis	149, 347	2,5 l	84571.320
Ethyl acetate for peptide synthesis	180, 347	2,5 l	84579.320
N-Ethyldiisopropylamine for peptide synthesis	181, 347	1 l	84574.290
1,1,1,3,3,3-Hexafluoro-2-propanol for peptide synthesis	214, 347	100 ml	84576.180
1,1,1,3,3,3-Hexafluoro-2-propanol for peptide synthesis	214, 347	500 ml	84576.260
Methanol for peptide synthesis	287, 347	2,5 l	84573.320
N-Methyl-2-pyrrolidone (NMP) for peptide synthesis	293, 347	2,5 l	84572.320
Tetrahydrofuran for peptide synthesis	347, 500	2,5 l	84577.320
Trifluoroacetic acid for peptide synthesis	347, 515	1 l	84578.290

Peptone

Storage Temperature: Ambient temperature

Peptone for bacteriology, pancreatic digested

Identification ..... Passes test

Cat. No.	Pk	Pack type
26208.297	1 kg	Plastic bottle for solids

Perchloric acid (50 - < 72%)

Danger
H271 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7601-90-3
Index 017-006-00-4
EINECS: 231-512-4
UN: 1873
ADR 5.1,I

$HClO_4$
Density: 1.53 to 1.768 g/cm³ (20 °C)
Boiling Pt: 160 to 181 °C (1013 hPa)
Melting Pt: -112.2 °C
Storage Temperature: Ambient temperature

Perchloric acid 70% AnalaR NORMAPUR® ACS analytical reagent

Assay	69.0 to 72.0 %	Colouration	Max. 10 APHA
Free chlorine	Max. 0.5 ppm	Ignition residue (SO_4)	Max. 30 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 3 ppm
ClO_3 (Chlorate)	Max. 10 ppm	$PO_4 + SiO_4$ (as SiO_2)	Max. 5 ppm
SO_4 (Sulphate)	Max. 10 ppm	Ag (Silver)	Max. 0.1 ppm
As (Arsenic)	Max. 0.05 ppm	Ba (Barium)	Max. 0.02 ppm
Be (Beryllium)	Max. 0.02 ppm	Bi (Bismuth)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.05 ppm	Cu (Copper)	Max. 0.1 ppm
Fe (Iron)	Max. 1 ppm	Ge (Germanium)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm	Li (Lithium)	Max. 0.02 ppm
Mg (Magnesium)	Max. 0.5 ppm	Mn (Manganese)	Max. 0.02 ppm
Mo (Molybdenum)	Max. 0.05 ppm	Ni (Nickel)	Max. 0.1 ppm
Pb (Lead)	Max. 0.05 ppm	Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.1 ppm	Tl (Thallium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.05 ppm	Zn (Zinc)	Max. 0.1 ppm
Zr (Zirconium)	Max. 0.1 ppm	Conforms to BDH 10176	Passes test

Cat. No.	Pk	Pack type
20589.260	500 ml	Glass bottle
20589.247	1 l	Glass bottle SAFEBREAK
20589.293	1 l	Glass bottle
20589.327	2,5 l	Glass bottle SAFEBREAK

Perchloric acid 70% GPR RECTAPUR®

Assay ..... 69 to 72 %
Ignition residue (SO_4) ..... Max. 0.02 %
Cl (Chloride) ..... Max. 25 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
20587.296	1 l	Glass bottle

Perchloric acid 65% NORMATOM® for trace metal analysis

Assay	69 to 72 %	Colouration	Max. 10 APHA
Free chlorine	Max. 0.5 ppm	Ignition residue (SO_4)	Max. 30 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 3 ppm
ClO_3 (Chlorate)	Max. 10 ppm	$PO_4 + SiO_4$ (as SiO_2)	Max. 5 ppm
SO_4 (Sulphate)	Max. 10 ppm	Ag (Silver)	Max. 1 ppb
Al (Aluminium)	Max. 1 ppb	As (Arsenic)	Max. 0.5 ppb
Au (Gold)	Max. 0.5 ppb	Ba (Barium)	Max. 1 ppb
Be (Beryllium)	Max. 0.5 ppb	Bi (Bismuth)	Max. 0.5 ppb
Ca (Calcium)	Max. 1 ppb	Cd (Cadmium)	Max. 1 ppb
Ce (Cerium)	Max. 0.5 ppb	Co (Cobalt)	Max. 0.5 ppb
Cs (Cesium)	Max. 0.5 ppb	Cu (Copper)	Max. 0.5 ppb
Dy (Dysprosium)	Max. 0.5 ppb	Er (Erbium)	Max. 0.5 ppb
Eu (Europium)	Max. 0.5 ppb	Fe (Iron)	Max. 1 ppb
Ga (Gallium)	Max. 0.5 ppb	Gd (Gadolinium)	Max. 0.5 ppb
Ho (Holmium)	Max. 0.5 ppb	In (Indium)	Max. 0.5 ppb
K (Potassium)	Max. 1 ppb	La (Lanthanum)	Max. 0.5 ppb
Li (Lithium)	Max. 0.5 ppb	Lu (Lutetium)	Max. 0.5 ppb
Mg (Magnesium)	Max. 1 ppb	Mn (Manganese)	Max. 1 ppb
Mo (Molybdenum)	Max. 0.5 ppb	Na (Sodium)	Max. 1 ppb
Nd (Neodymium)	Max. 0.5 ppb	Ni (Nickel)	Max. 1 ppb
Pb (Lead)	Max. 1 ppb	Pd (Palladium)	Max. 0.5 ppb
Pr (Praseodymium)	Max. 0.5 ppb	Pt (Platinum)	Max. 0.5 ppb
Rb (Rubidium)	Max 0.5 ppb	Rh (Rhodium)	Max. 0.5 ppb
Ru (Ruthenium)	Max. 0.5 ppb	Sb (Antimony)	Max. 0.5 ppb
Sc (Scandium)	Max. 0.5 ppb	Sm (Samarium)	Max. 0.5 ppb
Sn (Tin)	Max. 1 ppb	Sr (Strontium)	Max. 0.5 ppb
Tb (Terbium)	Max. 0.5 ppb	Te (Tellurium)	Max. 0.5 ppb
Th (Thorium)	Max. 1 ppb	Ti (Titanium)	Max. 1 ppb
Tl (Thallium)	Max. 0.5 ppb	Tm (Thulium)	Max. 0.5 ppb
U (Uranium)	Max. 0.5 ppb	V (Vanadium)	Max. 0.5 ppb
Y (Yttrium)	Max. 0.5 ppb	Yb (Ytterbium)	Max. 0.5 ppb
Zn (Zinc)	Max. 1 ppb	Zr (Zirconium)	Max. 0.5 ppb

Cat. No.	Pk	Pack type
83874.260	500 ml	Glass bottle
83874.320	2,5 l	Glass bottle
83874.420	2,5 l	Glass bottle SAFEBREAK

Perchloric acid 65% TECHNICAL

Assay ..... Min. 65 %

Cat. No.	Pk	Pack type
20585.290	1 l	Glass bottle
20585.494	21,74 l	Glass bottle

Perchloric acid 60% AnalaR NORMAPUR® analytical reagent

Assay	60 to 62 %	Free chlorine	Max. 5 ppm
Ignition residue (SO_4)	Max. 30 ppm	Total N (Nitrogen)	Max. 10 ppm
Cl (Chloride)	Max. 3 ppm	ClO_3 (Chlorate)	Max. 10 ppm
$PO_4 + SiO_4$ (as SiO_2)	Max. 5 ppm	SO_4 (Sulphate)	Max. 10 ppm
Ag (Silver)	Max. 5 ppm	As (Arsenic)	Max. 0.05 ppm
Cu (Copper)	Max. 0.1 ppm	Fe (Iron)	Max. 1.0 ppm
Mg (Magnesium)	Max. 10 ppm	Mn (Manganese)	Max. 0.5 ppm
Pb (Lead)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
20583.260	500 ml	Glass bottle
20583.240	1 l	Glass bottle SAFEBREAK
20583.327	2,5 l	Glass bottle SAFEBREAK

Perchloric acid (1 - < 5 mol/l; 1 - < 5 N) in aqueous solution

Danger
H272 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 7601-90-3
Index 017-006-00-4
EINECS: 231-512-4
UN: 1802
ADR 8,II
Flash Pt: Max. 23

$HClO_4$
Storage Temperature: Ambient temperature

Perchloric acid 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
30111.291	1 l	Glass bottle

Perchloric acid (0.1 - < 1 mol/l; 0.1 - < 1 N) in aqueous solution

Danger
H272 H319 H315
P210 P280 P302+P352 P305+P351+P338

CAS 7601-90-3
Index 017-006-00-4
EINECS: 231-512-4
UN: 1802
ADR 8,II

$HClO_4$
Storage Temperature: Ambient temperature

Perchloric acid 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1062901

Cat. No.	Pk	Pack type
87886.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

NEW Perchloric acid 0.1 mol/l (0.1 N) in aqueous solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.098 to 0.102 mol/l

Cat. No.	Pk	Pack type
86732.290	1 l	Plastic bottle

Perchloric acid (0.1 - < 1 mol/l; 0.1 - < 1 N) in anhydrous acetic acid

Danger
H226 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 7601-90-3
EINECS: 231-512-4
UN: 2920
ADR 8,II
Flash Pt: 40

$HClO_4$
Storage Temperature: Ambient temperature

Perchloric acid 0.1 mol/l (0.1 N) in anhydrous acetic acid AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l
Conforms to BDH 19093 ..... Passes test

Cat. No.	Pk	Pack type
30110.264	500 ml	Glass bottle
30110.297	1 l	Glass bottle
30110.320	2,5 l	Glass bottle SAFEBREAK

Perchloroethylene

See Tetrachloroethylene..... p.498

Periodic acid solution

CAS 10450-60-9
EINECS: 233-937-0
Storage Temperature: Ambient temperature

NEW Periodic acid solution Q PATH® for microscopy

Ready to use periodic acid for histological staining in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047024.	6 x 450 ml	Pouch

IVD registered. Instructions for use on vwr.com- just search for the product.

Perlite

CAS 93763-70-3
Density: 2.2 to 2.4 g/cm³ (20 °C)
Melting Pt: Min. 1093 °C

NEW Perlite for high clarity filtration

pH (10 %) ..... 6.50 to 7.50
Specific gravity ..... 1.9 to 2.5
Particle size (> 50 µm) ..... Max. 25 %

Cat. No.	Pk	Pack type
84101.290	1 kg	Bucket (Plastic)
84101.360	5 kg	Bucket (Plastic)

Peroxidase

Warning
H319 H335 H315 H317
P280 P302+P352 P304+P340 P305+P351+P338
P309+P310

CAS 9003-99-0
EINECS: 232-668-6
Storage Temperature: -20°C

VWR CHEMICALS Peroxidase (from Horseradish), reagent grade

Catalyses the decomposition of hydrogen peroxide in solution causing the oxidation of a number of substrates.

RZ 1.0
Solubility (1%, Water) ..... PASS
Specific Activity ..... 100 Ppg U/mg

Cat. No.	Pk	Pack type
0417-25000U	25 KU	Glass bottle
0417-100000U	100 KU	Glass bottle

VWR CHEMICALS Peroxidase (from Horseradish) for conjugation

Catalyses the decomposition of hydrogen peroxide in solution causing the oxidation of a number of substrates.

RZ 3.0
Solubility (1%, Water) ..... PASS
Specific Activity ..... 250 Ppg U/mg

Cat. No.	Pk	Pack type
0343-10000U	10 KU	Glass bottle
0343-25000U	25 KU	Glass bottle

Peroxydisulphuric acid dipotassium salt

See Potassium peroxodisulphate..... p.387

Peroxydisulphuric acid disodium salt

See Sodium peroxodisulphate..... p.454

Pesticides Mix 2, EPA 608

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

Pesticides Mix 2, EPA 608

Chlordane (0.02 mg/ mL) & Toxaphene (0.20 mg/ mL) in methanol

Cat. No.	Pk	Pack type
124782C	1 ml	Glass ampoule

Performance Check Solution pesticides and PCBs, EPA 608

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

Performance Check Solution pesticides and PCBs, EPA 608

All components are at stated concentrations
17 components

Aldrin	0.02 mg/ml
α-BHC	0.02 mg/ml
β-BHC	0.02 mg/ml
γ-BHC	0.02 mg/ml
δ-BHC	0.02 mg/ml
4,4'-DDD	0.10 mg/ml
4,4'-DDE	0.02 mg/ml
4,4'-DDT	0.10 mg/ml
Dieldrin	0.02 mg/ml
Endosulfan I	0.02 mg/ml
Endosulfan II	0.10 mg/ml
Endosulfan sulphate	0.10 mg/ml
Endrin	0.10 mg/ml
Endrin aldehyde	0.02 mg/ml
Heptachlor	0.02 mg/ml
Heptachlor epoxide	0.02 mg/ml
Methoxychlor	0.02 mg/ml

Cat. No.	Pk	Pack type
124802M	1 ml	Vial

Petroleum ether 40-60°C

See Petroleum spirit 40-60°C p.351

Petroleum ether 40-65°C

See Petroleum spirit 40-65°C p.351

Petroleum ether 60-80°C

See Petroleum spirit 60-80°C p.351

Petroleum ether 60-95°C

See Petroleum spirit 60-95°C p.351

Petroleum ether 80-100°C

See Petroleum spirit 80-100°C p.350

Petroleum ether 100-120°C

See Petroleum spirit 100-120°C p.350

Petroleum spirit 100-120°C

Petroleum ether 100-120°C

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -10 °C

Not to be used as power or heating fuel.
Density: 0.7 g/cm³ (20 °C)
Boiling Pt: 100 to 120 °C (1013 hPa)
Storage Temperature: Ambient temperature

Petroleum spirit 100-120°C AnalaR NORMAPUR® analytical reagent

Acidity	Max. 0.00005 meq/g	Aromatics (as C_6H_6)	Max. 20 ppm
Bromine value	Max. 3.0	Colouration	Max. 10 APHA
Distillation (min. 90 %)	100 to 120 °C	Evaporation residue	Max. 10 ppm
Substances discoloured by H_2SO_4	Max. 10 APHA	Sulphur compounds (as S)	Max. 50 ppm
Water	Max. 100 ppm	Al (Aluminium)	Max. 0.1 ppm
Ba (Barium)	Max. 0.05 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	K (Potassium)	Max. 0.2 ppm
Mg (Magnesium)	Max. 0.05 ppm	Mn (Manganese)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm	Sn (Tin)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.02 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
101814R	2,5 l	Glass bottle

Petroleum spirit 100-120°C TECHNICAL

Substances discoloured by H_2SO_4	Passes test
Acidity	Max. 0.0003 meq/g
Density (20/4)	0.690 to 0.750
Distillation (min. 90 %)	100 to 125 °C
Evaporation residue	Max. 20 ppm
Conforms to BDH 29827	Passes test

Cat. No.	Pk	Pack type
23845.323	2,5 l	Glass bottle
23845.460	25 l	Metal drum
23845.551	200 l	Metal drum

Petroleum spirit 80-100°C

Petroleum ether 80-100°C

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -10 °C

Not to be used as power or heating fuel.
Density: 0.69 g/cm³ (20 °C)
Boiling Pt: 80 to 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Petroleum spirit 80-100°C TECHNICAL

Density (20/4)..... 0.680 to 0.730
Distillation (min. 90 %)..... 80 to 100 °C

Cat. No.	Pk	Pack type
23841.320	2,5 l	Glass bottle
23841.364	5 l	Metal can

Petroleum spirit 60-95°C

Petroleum ether 60-95°C

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -21 °C

Not to be used as power or heating fuel.
Density: 0.67 g/cm³ (20 °C)
Boiling Pt: 60 to 95 °C (1013 hPa)
Melting Pt: Max. -40 °C
Storage Temperature: Ambient temperature

Petroleum spirit 60-95°C AnalaR NORMAPUR® analytical reagent

Heavy oils and fats..... Passes test
Evaporation residue..... Max. 10 ppm
Water..... Max. 0.02 %
Acidity..... Max. 0.0001 meq/g
Sulphur compounds (as S)..... Max. 50 ppm

Cat. No.	Pk	Pack type
1991.1000	1 l	Glass bottle

Petroleum spirit 60-95°C TECHNICAL

Distillation (min. 90 %)..... 60 to 95 °C
Evaporation residue..... Max. 20 ppm

Cat. No.	Pk	Pack type
87125.320	2,5 l	Glass bottle
87125.360	5 l	Metal can
87125.460	25 l	Metal drum

Petroleum spirit 60-80°C

Petroleum ether 60-80°C

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -40 °C

Not to be used as power or heating fuel.
Density: 0.67 g/cm³ (20 °C)
Boiling Pt: 60 to 80 °C (1013 hPa)
Storage Temperature: Ambient temperature

Petroleum spirit 60-80°C AnalaR NORMAPUR® analytical reagent

Acidity..... Max. 0.0002 meq/g
Colouration..... Max. 10 APHA
Boiling range (60-80°C)..... Min. 90 %
Sulphur compounds (as CS_2)..... Max. 3 ppm
Al (Aluminium)..... Max. 0.15 ppm
Ca (Calcium)..... Max. 0.5 ppm
Co (Cobalt)..... Max. 0.02 ppm
Fe (Iron)..... Max. 0.1 ppm
Mn (Manganese)..... Max. 0.02 ppm
Ni (Nickel)..... Max. 0.02 ppm
Sn (Tin)..... Max. 0.1 ppm
Zn (Zinc)..... Max. 0.1 ppm
Bromine value..... Max. 3.0
Substances discoloured by H_2SO_4 .. Max. 150 APHA
Evaporation residue..... Max. 10 ppm
Water..... Max. 100 ppm
Ba (Barium)..... Max. 0.08 ppm
Cd (Cadmium)..... Max. 0.05 ppm
Cu (Copper)..... Max. 0.02 ppm
Mg (Magnesium)..... Max. 0.08 ppm
Na (Sodium)..... Max. 0.75 ppm
Pb (Lead)..... Max. 0.08 ppm
Sr (Strontium)..... Max. 0.03 ppm
Conforms to BDH 10179..... Passes test

Cat. No.	Pk	Pack type
23840.292	1 l	Glass bottle
23840.326	2,5 l	Glass bottle
23840.460	25 l	Metal drum

Petroleum spirit 40-65°C

Petroleum ether 40-65°C

Danger
H225 H304 H315 H336 H411
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -40 °C

Not to be used as power or heating fuel.
Density: 0.65 g/cm³ (20 °C)
Boiling Pt: 40 to 65 °C (1013 hPa)
Storage Temperature: Ambient temperature

Petroleum spirit 40-65°C, anhydrous TECHNICAL (max. 0.01% aromatic hydrocarbons)

Distillation range..... 40 to 65 °C

Cat. No.	Pk	Pack type
23837.291	1 l	Glass bottle
23837.325	2,5 l	Glass bottle
23837.360	5 l	Metal can
23837.462	25 l	Metal drum
23837.553	200 l	Metal drum

Petroleum spirit 40-60°C

Petroleum ether 40-60°C

Danger
H225 H304 H336 H411
EUH066
P210 P243 P280 P273 P301+P331 P304+P340
P309+P310

CAS 64742-49-0
Index 649-328-00-1
EINECS: 265-151-9
UN: 1268
ADR 3,II
Flash Pt: -40 °C

Not to be used as power or heating fuel.
Density: 0.65 g/cm³ (20 °C)
Boiling Pt: 40 to 60 °C (1013 hPa)
Storage Temperature: Ambient temperature

Petroleum spirit 40-60°C PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Boiling range (40-60°C) (Vol %) ..... Min. 90 %
Evaporation residue ..... Max. 5 ppm
Water ..... Max. 0.02 %
Pesticide analysis (Ethylparathion/PND) ..... Max. 10 ng/l
Pesticide analysis (Lindane/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83663.320	2,5 l	Glass bottle

Petroleum spirit 40-60°C PESTINORM® for capillary GC analysis

Filtered 0.2 µm filter, packaged under nitrogen

Boiling range (40-60°C)(1013hPa) (Vol %) ..... Min. 90 %(V)
Acidity ..... Max. 0.0005 meq/g
Evaporation residue ..... Max. 0.0005 %
Water ..... Max. 0.01 %
Organic residue (as Octanol) (GC/FID) ..... Max. 10 ng/ml
Halogenated residue (as Lindane)(GC/ECD) ..... Max. 5 ng/l

Cat. No.	Pk	Pack type
83965.320	2,5 l	Glass bottle

Petroleum spirit 40-60°C, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance ..... Clear liquid
Density (20/4) ..... 0.631 to 0.645
Residue on evaporation ..... Max. 0.001 %
Benzene ..... Max. 0.01 %
Al (Aluminium) ..... Max. 0.5 ppm
Ba (Barium) ..... Max. 0.1 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.1 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Pb (Lead) ..... Max. 0.1 ppm
Zn (Zinc) ..... Max. 0.1 ppm
Colour value ..... Max. 10 APHA
Acidity ..... Max. 0.0002 meq/g
Water (K.F.) ..... Max. 0.005 %
Substances discoloured by H_2SO_4 .. Max. 150 APHA
B (Boron) ..... Max. 0.02 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Sn (Tin) ..... Max. 0.1 ppm
Total S (Sulphur) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
23849.292	1 l	Glass bottle

Petroleum spirit 40-60°C AnalaR NORMAPUR® analytical reagent (max. 0.01% aromatic hydrocarbons)

Acidity ..... Max. 0.0002 meq/g
Colouration ..... Max. 10 APHA
Substances discoloured by H_2SO_4 .. Max. 150 APHA
Evaporation residue ..... Max. 10 ppm
Water ..... Max. 100 ppm
Ba (Barium) ..... Max. 0.1 ppm
Cd (Cadmium) ..... Max. 0.05 ppm
Cr (Chromium) ..... Max. 0.02 ppm
Fe (Iron) ..... Max. 0.1 ppm
Mg (Magnesium) ..... Max. 0.1 ppm
Na (Sodium) ..... Max. 1 ppm
Pb (Lead) ..... Max. 0.1 ppm
Sr (Strontium) ..... Max. 0.03 ppm
Conforms to BDH 10178 ..... Passes test
Bromine value ..... Max. 1.0
Distillation range ..... 40 to 60 °C
Benzene ..... Max. 100 ppm
Total S (as SO_4) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 0.2 ppm
Ca (Calcium) ..... Max. 0.5 ppm
Co (Cobalt) ..... Max. 0.02 ppm
Cu (Copper) ..... Max. 0.02 ppm
K (Potassium) ..... Max. 0.3 ppm
Mn (Manganese) ..... Max. 0.02 ppm
Ni (Nickel) ..... Max. 0.02 ppm
Sn (Tin) ..... Max. 0.1 ppm
Zn (Zinc) ..... Max. 0.1 ppm
Conforms to BDH 10184 ..... Passes test

Cat. No.	Pk	Pack type
23835.294	1 l	Glass bottle
23835.328	2,5 l	Glass bottle
23835.363	5 l	Aluminium bottle
23835.460	25 l	Metal drum
23835.556	200 l	Metal drum

Petroleum spirit 40-60°C AnalaR NORMAPUR® analytical reagent

Colouration ..... Max 10 HU
Acidity ..... Max 0.002 ml N%
Substances discoloured by H_2SO_4 ..... Passes test
Water ..... Max 0.01 %
Al (Aluminium) ..... Max 0.00002 %
Ca (Calcium) ..... Max 0.00005 %
Co (Cobalt) ..... Max 0.000002 %
Cu (Copper) ..... Max 0.000002 %
K (Potassium) ..... Max 0.00003 %
Mn (Manganese) ..... Max 0.000002 %
Ni (Nickel) ..... Max 0.000002 %
Sn (Tin) ..... Max 0.00001 %
Zn (Zinc) ..... Max 0.00001 %
Bromine number ..... Max 3.0
Distillation Range (90% min) ..... 40 to 60 °C
Non-volatile matter ..... Max 0.001 %
Sulphur compounds (total S) ..... Max 0.005 %
Ba (Barium) ..... Max 0.00001 %
Cd (Cadmium) ..... Max 0.000005 %
Cr (Chromium) ..... Max 0.000002 %
Fe (Iron) ..... Max 0.00001 %
Mg (Magnesium) ..... Max 0.00001 %
Na (Sodium) ..... Max 0.0001 %
Pb (Lead) ..... Max 0.00001 %
Sr (Strontium) ..... Max 0.000003 %

Cat. No.	Pk	Pack type
101786H	2,5 l	Glass bottle SAFEBREAK

Petroleum spirit 40-60°C GPR RECTAPUR®

Acidity or alkalinity ..... Max. 0.0002 meq/g
Distillation range ..... 40 to 60 °C
Substances discoloured by H_2SO_4 ..... Max. 150 APHA
Benzene ..... Max. 0.15 %
Evaporation residue ..... Max. 10 ppm
Total S (as SO_4) ..... Max. 50 ppm
Water ..... Max. 0.015 %
Conforms to BDH 29825 ..... Passes test

Cat. No.	Pk	Pack type
23826.293	1 l	Glass bottle
23826.327	2,5 l	Glass bottle
23826.360	5 l	Metal can
23826.464	25 l	Metal drum

pH Buffers, Solutions, Mixtures & Tablets

See Buffer

pH Papers

see Indicators

pH (Dye dry indicators for)

Congo Red TECHNICAL p.121
1-Naphtholbenzeine analytical reagent p.318
Phenolphthalein GPR RECTAPUR® p.360

pH Standard 4.0

pH Standard 4.0 for biotechnology

pH @25 °C ..... 3.97 - 4.03

Cat. No.	Pk	Pack type
E452-500ML	500 ml	Plastic bottle

pH Standard 7.0

pH Standard 7.0 for biotechnology

pH @25 °C ..... 6.97 - 7.03

Cat. No.	Pk	Pack type
E459-500ML	500 ml	Plastic bottle

pH Standard 10.0

pH Standard 10.0 for biotechnology

pH @ 25 °C ..... 9.97 - 10.03

Cat. No.	Pk	Pack type
E464-500ML	500 ml	Plastic bottle

pH-Indicator paper congo red

Storage Temperature: Ambient temperature

pH-Indicator paper congo red Reag. Ph. Eur. 1022002

Cat. No.	Pk	Pack type
87806.600	50 Tests	Kit

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

pH-Indicator paper phenolphthalein

Storage Temperature: Ambient temperature

pH-Indicator paper phenolphthalein Reag. Ph. Eur. 1063704

Cat. No.	Pk	Pack type
87891.150	50 Tests	Kit

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Pharmacopoeia grade products

The requirements and regulations faced by manufacturers of pharmaceuticals purchasing chemicals for production purposes today are higher than ever before. VWR can help and offers a range of chemicals which are in compliance with the European Pharmacopoeia and/or other Pharmacopoeia as indicated by the specification for each product.

Description	Page	Pk	Cat. No.
Acetic acid glacial Ph. Eur.	3, 354	1 l	20102.292
Acetic acid glacial Ph. Eur.	3, 354	2,5 l	20102.320
Acetic acid glacial Ph. Eur.	3, 354	25 l	20102.463
Acetone Ph. Eur.	7, 354	1 l	20165.298
Acetone Ph. Eur.	7, 354	2,5 l	20165.323
Acetone Ph. Eur.	7, 354	5 l	20165.367
Acetone Ph. Eur.	7, 354	25 l	20165.460
Ammonium carbonate Ph.Franç	30, 354	1 kg	83516.290
L(+)-Ascorbic acid USP, Ph. Eur.	51, 354	100 g	83568.180
L(+)-Ascorbic acid USP, Ph. Eur.	51, 354	1 kg	83568.290
L(+)-Ascorbic acid USP, Ph. Eur.	51, 354	5 kg	83568.360
L(+)-Ascorbic acid USP, Ph. Eur.	51, 354	25 kg	83568.460
Barium sulphate, fine powder Ph. Eur.	61, 354	1 kg	21763.292
Barium sulphate, fine powder Ph. Eur.	61, 354	25 kg	21763.463
Benzocaine (Ethyl 4-aminobenzoate) Ph. Eur.	63, 354	50 g	83530.150
Bismuth (III) carbonate basic Ph. Eur.	69, 354	250 g	83518.230
ortho-Boric acid, crystallized Ph. Eur.	71, 354	1 kg	20181.294
ortho-Boric acid, crystallized Ph. Eur.	71, 354	5 kg	20181.363
ortho-Boric acid, crystallized Ph. Eur.	71, 354	25 kg	20181.465
Calcium chloride dihydrate Ph. Eur.	93, 354	1 kg	22322.295
Calcium chloride dihydrate Ph. Eur.	93, 354	5 kg	22322.364
Calcium chloride dihydrate Ph. Eur.	93, 354	25 kg	22322.466
Charcoal activated, powder Ph. Eur.	55, 104, 354	100 g	26009.186
Charcoal activated, powder Ph. Eur.	55, 104, 354	5 kg	26009.360
Chloroform BP	107, 354	2,5 l	22705.323
Citric acid, anhydrous, powder Ph. Eur.	113, 354	1 kg	20282.293
Citric acid, anhydrous, powder Ph. Eur.	113, 354	5 kg	20282.362
Citric acid, anhydrous, powder Ph. Eur.	113, 354	25 kg	20282.464
Citric acid monohydrate, powder Ph. Eur.	114, 354	1 kg	85514.290
Citric acid monohydrate, powder Ph. Eur.	114, 354	5 kg	85514.360
Citric acid monohydrate, powder Ph. Eur.	114, 354	25 kg	85514.460
Dichloromethane Ph. Eur.	143, 354	1 l	23365.290
Dichloromethane Ph. Eur.	143, 354	25 l	23365.461
Dichloromethane Ph. Eur.	143, 354	200 l	23365.552
Diethyl ether Ph. Eur.	145, 354	1 l	23819.298
Diethyl ether Ph. Eur.	145, 354	5 l	23819.367
Diethyl ether Ph. Eur.	145, 354	25 l	23819.460
Dimethyl sulphoxide Ph. Eur.	151, 354	1 l	83529.290
EDTA disodium salt dihydrate Ph. Eur.	160, 354	1 kg	20309.296
EDTA disodium salt dihydrate Ph. Eur.	160, 354	5 kg	20309.365
Ethanol absolute Ph. Eur.	173, 354	1 l	20816.298
Ethanol absolute Ph. Eur.	173, 354	5 l	20816.367
Ethanol absolute Ph. Eur.	173, 354	25 l	20816.470
Ethanol 96% (v/v) Ph. Eur.	174, 354	1 l	20905.296
Ethanol 96% (v/v) Ph. Eur.	174, 354	2,5 l	20905.320
Ethanol 96% (v/v) Ph. Eur.	174, 354	5 l	20905.365
Ethanol 96% (v/v) Ph. Eur.	174, 354	25 l	20905.467
D(-)-Fructose Ph. Eur.	192, 354	1 kg	24282.290
D(-)-Fructose Ph. Eur.	192, 354	5 kg	24282.368
D(-)-Fructose Ph. Eur.	192, 354	25 kg	24282.461
Gelatine, powder Ph. Eur.	197, 354	250 g	24360.233
Gelatine, powder Ph. Eur.	197, 354	5 kg	24360.368
D(+)-Glucose, anhydrous Ph. Eur., USP	199, 354	500 g	284504S
D(+)-Glucose, anhydrous Ph. Eur., USP	199, 354	5 kg	284508W
D(+)-Glucose, anhydrous Ph. Eur., USP	199, 354	25 kg	28450BF
D(+)-Glucose monohydrate Ph. Eur.	199, 354	1 kg	24369.290
D(+)-Glucose monohydrate Ph. Eur.	199, 354	25 kg	24369.461
L(+)-Glutamic acid Ph. Eur.	200, 354	250 g	20350.232
Glycerine Ph. Eur.	202, 354	1 l	24386.298
Glycerine Ph. Eur.	202, 354	5 l	24386.367
Gum tragacanth Ph. Eur., USP, NF	208, 354	500 g	24437.260
Hydrochloric acid 37% Ph. Eur.	225, 354	1 l	20255.290
Hydrochloric acid 37% Ph. Eur.	225, 354	2,5 l	20255.324
Hydrochloric acid 37% Ph. Eur.	225, 354	2,5 l	20255.420
Hydrochloric acid 37% Ph. Eur.	225, 354	5 l	20255.368
Hydrochloric acid 37% Ph. Eur.	225, 354	20 l	20255.440
Hydrochloric acid 25% Reag. Ph. Eur.	227, 354	5 l	84514.360
Hydrogen peroxide 30% Ph. Eur.	232, 354	500 ml	23622.260
Hydrogen peroxide 30% Ph. Eur.	232, 354	1 l	23622.298
Hydrogen peroxide 30% Ph. Eur.	232, 354	2,5 l	23622.330
Hydrogen peroxide 30% Ph. Eur.	232, 354	5 l	23622.367

Description	Page	Pk	Cat. No.
Iodine Ph. Eur.	246, 355	500 g	24762.265
Iron (II) sulphate heptahydrate Ph. Eur.	252, 355	1 kg	24246.295
Lactic acid 90% in aqueous solution Ph. Eur.	260, 355	1 l	20370.297
Lactic acid 90% in aqueous solution Ph. Eur.	260, 355	5 l	20370.366
Magnesium chloride hexahydrate Ph. Eur., BP, USP	273, 355	1 kg	87060.290
Magnesium chloride hexahydrate Ph. Eur., BP, USP	273, 355	5 kg	87060.360
Magnesium chloride hexahydrate Ph. Eur., BP, USP	273, 355	25 kg	87060.460
Magnesium hydroxide Ph. Eur.	274, 355	1 kg	25059.295
Magnesium hydroxide Ph. Eur.	274, 355	25 kg	25059.466
Magnesium oxide heavy Ph. Eur.	275, 355	1 kg	83540.290
Magnesium sulphate, dried USP	275, 355	1 kg	7154.1000
Magnesium sulphate heptahydrate Ph. Eur.	276, 355	1 kg	25167.298
Magnesium sulphate heptahydrate Ph. Eur.	276, 355	5 kg	25167.367
Magnesium sulphate heptahydrate Ph. Eur.	276, 355	25 kg	25167.460
D(-)-Mannitol Ph. Eur.	279, 355	1 kg	25311.297
D(-)-Mannitol Ph. Eur.	279, 355	5 kg	25311.366
D(-)-Mannitol Ph. Eur.	279, 355	25 kg	25311.468
Methyl 4-hydroxybenzoate Ph. Eur.	291, 355	1 kg	25604.290
Orthophosphoric acid 85% Ph. Eur.	333, 355	1 l	20626.292
Orthophosphoric acid 85% Ph. Eur.	333, 355	5 l	20626.361
Orthophosphoric acid 85% Ph. Eur.	333, 355	25 l	20626.463
Paraffin, liquid Ph. Eur.	339, 355	5 l	8577.5000
Paraffin, solidification point 52-54°C, pellets Ph. Eur.	338, 355	1 kg	26157.291
Phenol, detached crystals Ph. Eur.	355, 358	1 kg	20596.297
Phenol, detached crystals Ph. Eur.	355, 358	25 kg	20596.468
Phenolphthalein Ph. Eur.	355, 360	100 g	83544.180
2-Phenoxyethanol Ph. Eur.	355, 361	1 l	26244.290
Polyvinylpyrrolidone 40,000 (K30) Ph. Eur.	355, 368	1 kg	26617.291
Polyvinylpyrrolidone 40,000 (K30) Ph. Eur.	355, 368	5 kg	26617.360
Potassium acetate Ph. Eur.	355, 370	1 kg	85507.290
Potassium chloride Ph. Eur., USP	355, 372	1 kg	26760.295
Potassium chloride Ph. Eur., USP	355, 372	5 kg	26760.364
Potassium chloride Ph. Eur., USP	355, 372	25 kg	26760.466
Potassium dihydrogen phosphate, crystallized Ph. Eur.	355, 375	1 kg	26922.295
Potassium dihydrogen phosphate, crystallized Ph. Eur.	355, 375	5 kg	26922.364
Potassium dihydrogen phosphate, crystallized Ph. Eur.	355, 375	25 kg	26922.466
di-Potassium hydrogen phosphate Ph. Eur.	355, 379	1 kg	26932.290
di-Potassium hydrogen phosphate Ph. Eur.	355, 379	5 kg	26932.368
di-Potassium hydrogen phosphate Ph. Eur.	355, 379	25 kg	26932.461
L(+)-Potassium hydrogen tartrate Ph. Eur.	355, 380	5 kg	27057.361
Potassium hydroxide, pellets Ph. Eur.	355, 381	1 kg	26670.294
Potassium hydroxide, pellets Ph. Eur.	355, 381	5 kg	26670.363
Potassium hydroxide, pellets Ph. Eur.	355, 381	25 kg	26670.465
Potassium iodide Ph. Eur.	355, 384	250 g	26850.230
Potassium iodide Ph. Eur.	355, 384	500 g	26850.260
Potassium iodide Ph. Eur.	355, 384	1 kg	26850.296
Potassium iodide Ph. Eur.	355, 384	5 kg	26850.365
Potassium permanganate, crystallized Ph. Eur.	355, 386	1 kg	26904.293
Potassium permanganate, crystallized Ph. Eur.	355, 386	25 kg	26904.464
Potassium sorbate, granules Ph. Eur.	355, 388	1 kg	26976.291
Potassium sorbate, granules Ph. Eur.	355, 388	25 kg	26976.462
2-Propanol Ph. Eur.	355, 393	1 l	20904.293
2-Propanol Ph. Eur.	355, 393	2,5 l	20904.320
2-Propanol Ph. Eur.	355, 393	5 l	20904.362
2-Propanol Ph. Eur.	355, 393	25 l	20904.465
Resorcinol Ph. Eur.	355, 408	1 kg	27379.294
Salicylic acid, powder Ph. Eur.	355, 414	1 kg	20662.296
Salicylic acid, powder Ph. Eur.	355, 414	25 kg	20662.467
Silver nitrate Ph. Eur.	355, 426	100 g	83517.180
Sodium acetate trihydrate Ph. Eur.	355, 431	1 kg	27649.297
Sodium acetate trihydrate Ph. Eur.	355, 431	25 kg	27649.468
Sodium benzoate Ph. Eur.	355, 432	1 kg	83551.290
Sodium benzoate Ph. Eur.	355, 432	5 kg	83551.360
Sodium carbonate, anhydrous Ph. Eur.	355, 433	1 kg	27767.295
Sodium carbonate, anhydrous Ph. Eur.	355, 433	25 kg	27767.466
Sodium carbonate decahydrate Ph. Eur.	355, 434	1 kg	27761.295
Sodium chloride Ph. Eur.	355, 435	1 kg	27808.297
Sodium chloride Ph. Eur.	355, 435	5 kg	27808.366
Sodium chloride Ph. Eur.	355, 435	25 kg	27808.468
tri-Sodium citrate dihydrate, crystallized Ph. Eur.	355, 436	1 kg	27831.297
tri-Sodium citrate dihydrate, crystallized Ph. Eur.	355, 436	5 kg	27831.366
Sodium dihydrogen phosphate dihydrate Ph. Eur.	355, 438	1 kg	28014.291
Sodium dihydrogen phosphate dihydrate Ph. Eur.	355, 438	5 kg	28014.360
Sodium fluoride Ph. Eur.	355, 440	1 kg	27859.293
Sodium fluoride Ph. Eur.	355, 440	25 kg	27859.464
Sodium hydrogen carbonate Ph. Eur.	355, 442	1 kg	27775.293
Sodium hydrogen carbonate Ph. Eur.	355, 442	5 kg	27775.362
Sodium hydrogen carbonate Ph. Eur.	355, 442	25 kg	27775.464
di-Sodium hydrogen phosphate dihydrate Ph. Eur., USP	355, 443	1 kg	87010.290
di-Sodium hydrogen phosphate dihydrate Ph. Eur., USP	355, 443	5 kg	87010.360
di-Sodium hydrogen phosphate dihydrate Ph. Eur., USP	355, 443	25 kg	87010.460
di-Sodium hydrogen phosphate dodecahydrate Ph. Eur.	355, 443	1 kg	28035.293
di-Sodium hydrogen phosphate dodecahydrate Ph. Eur.	355, 443	5 kg	28035.362
Sodium hydroxide, pellets Ph. Eur.	355, 444	1 kg	28248.298
Sodium hydroxide, pellets Ph. Eur.	355, 444	5 kg	28248.367
Sodium hydroxide, pellets Ph. Eur.	355, 444	25 kg	28248.460

Description	Page	Pk	Cat. No.
Sodium iodide Ph. Eur.	356, 449	1 kg	27916.291
Sodium iodide Ph. Eur.	356, 449	5 kg	27916.360
Sodium iodide Ph. Eur.	356, 449	25 kg	27916.462
DL-Sodium lactate 50% in aqueous solution Ph. Eur.	356, 450	1 l	27927.298
DL-Sodium lactate 50% in aqueous solution Ph. Eur.	356, 450	25 l	27927.460
Sodium sulphate, anhydrous, fine powder Ph. Eur.	356, 457	1 kg	28105.295
Sodium sulphate, anhydrous, fine powder Ph. Eur.	356, 457	5 kg	28105.364
Sodium sulphate, anhydrous, fine powder Ph. Eur.	356, 457	25 kg	28105.466
Sodium sulphite, anhydrous Ph. Eur.	356, 458	1 kg	28125.294
Sodium sulphite, anhydrous Ph. Eur.	356, 458	5 kg	28125.363
Sodium sulphite, anhydrous Ph. Eur.	356, 458	25 kg	28125.465
di-Sodium tetraborate decahydrate Ph. Eur.	356, 459	1 kg	83555.290
di-Sodium tetraborate decahydrate Ph. Eur.	356, 459	25 kg	83555.460
D(+)-Sucrose Ph. Eur.	356, 484	1 kg	27483.294
D(+)-Sucrose Ph. Eur.	356, 484	5 kg	27483.363
D(+)-Sucrose Ph. Eur.	356, 484	25 kg	27483.465
Sulphuric acid 96% Ph. Eur.	356, 487	1 l	85508.290
Sulphuric acid 96% Ph. Eur.	356, 487	2,5 l	85508.320
Talc Ph. Eur.	356, 492	500 g	83557.260
L(+)-Tartaric acid, powder Ph. Eur.	356, 494	1 kg	83511.290
L(+)-Tartaric acid, powder Ph. Eur.	356, 494	5 kg	83511.360
Thymol Ph. Eur.	356, 505	100 g	83558.180
Trichloroacetic acid (glacial) Ph. Eur.	356, 513	1 kg	20741.290
Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Ph. Eur., USP	356, 520	1 kg	87020.290
Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Ph. Eur., USP	356, 520	5 kg	87020.360
Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Ph. Eur., USP	356, 520	25 kg	87020.460
Vaseline white Reag. Ph. Eur.	356, 532	1 kg	28908.290
Water Ph. Eur., USP, NF, purified	356, 537	10 l	90200.9010
Water Ph. Eur., USP, NF, purified	356, 537	25 l	90200.9025
Zinc sulphate heptahydrate Ph. Eur.	356, 552	1 kg	29158.294
Zinc sulphate heptahydrate Ph. Eur.	356, 552	5 kg	29158.363

Phenanthrene

Warning
H302 H410
P273 P301+P312

CAS 85-01-8
EINECS: 201-581-5
UN: 3077
ADR 9,III
Flash Pt: 153 °C

$C_{14}H_{10}$
M.W. 178.23 g/mol
Density: 1.19 g/cm³ (20 °C)
Boiling Pt: 340 °C (1013 hPa)
Melting Pt: 97 to 99 °C
Storage Temperature: Ambient temperature

Phenanthrene

Cat. No.	Pk	Pack type
123112M	100 mg	Glass ampoule

1,10-Phenanthroline monohydrate

Danger
H301 H410
P273 P301+P310

CAS 5144-89-8
Index 613-092-00-8
EINECS: 200-629-2
UN: 2811
ADR 6.1,III

$C_{12}H_8N_2 \cdot 1H_2O$
M.W. 198.22 g/mol
Density: 1.259 g/cm³ (20 °C)
Melting Pt: 93 to 94 °C
Storage Temperature: Ambient temperature

1,10-Phenanthroline monohydrate analytical reagent

Assay ..... Min. 99.0 %
Suited for iron reagent ..... Passes test
Melting point ..... 93 to 110 °C
Ignition residue (SO_4) ..... Max. 0.1 %

Cat. No.	Pk	Pack type
26227.101	5 g	Glass bottle

1,10-Phenanthroline monohydrate, proteomics grade

A metalloprotease inhibitor useful for chelating iron and other divalent metals.
Working concentration: 20 mM

Iron Test ..... PASS
Protease ..... NONE
Redox Test ..... PASS

Cat. No.	Pk	Pack type
M135-10G	10 g	Glass bottle
M135-50G	50 g	Glass bottle

1,10-Phenanthroline hydrochloride monohydrate

1,10-Phenanthrolinium chloride monohydrate , 1,10-Phenanthroline monohydrochloride monohydrate

Danger
H301 H400
P273

CAS 3829-86-5
EINECS: 223-325-1
UN: 2811
ADR 6.1,III

$C_{12}H_9ClN_2 \cdot 1H_2O$
M.W. 234.69 g/mol
Density: 1.385 g/cm³ (-100.15 °C)
Melting Pt: 224 to 226 °C
Storage Temperature: Ambient temperature

1,10-Phenanthroline hydrochloride monohydrate analytical reagent

Assay ..... Min. 99.0 %
Suited for iron reagent ..... Passes test
Suited for redox indicator ..... Passes test
Ignition residue (SO_4) ..... Max. 0.2 %
Loss on drying (100-105°C) ..... Max. 8.0 %

Cat. No.	Pk	Pack type
26230.102	5 g	Plastic bottle for solids

1,10-Phenanthroline monohydrochloride monohydrate

See 1,10-Phenanthroline hydrochloride monohydrate p.357

1,10-Phenanthrolinium chloride monohydrate

See 1,10-Phenanthroline hydrochloride monohydrate p.357

Phenetole

Ethoxybenzene , Ethyl phenyl ether , Phenoxyethane

Danger
H226

CAS 103-73-1
EINECS: 203-139-7
UN: 3271
ADR 3,III
Flash Pt: 57 °C

$C_6H_5OC_2H_5$
M.W. 122.17 g/mol
Density: 0.956 g/cm³ (20 °C)
Boiling Pt: 170 °C (1013 hPa)
Melting Pt: 169.9 °C
Storage Temperature: Ambient temperature

NEW Phenetole

Assay ..... Min. 99.5 %
Phenol ..... Max. 0.05 %
Water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
27295.294	1 l	Plastic bottle

Phenol

Carbolic acid , Hydroxybenzene , Phenylalcohol

Danger
H341 H301+H311+H331 H373 H314
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-95-2
Index 604-001-00-2
EINECS: 203-632-7
UN: 1671
ADR 6.1,II
Flash Pt: 81 °C (closed cup)

C_6H_5OH
Density: 1.06 g/cm³ (20 °C)
Boiling Pt: 181.8 °C (1013 hPa)
Melting Pt: 40.8 °C
Storage Temperature: Ambient temperature

Phenol, detached crystals AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Acidity or alkalinity	Max. 0.00004 meq/g
Congealing temperature	Min. 39.5 °C	o-Cresol	Max. 0.05 %
m-Cresol	Max. 0.05 %	p-Cresol	Max. 0.05 %
Evaporation residue	Max. 100 ppm	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in water	Max. 50 ppm	Water	Max. 0.2 %
Cl (Chloride)	Max. 5 ppm	Cu (Copper)	Max. 0.05 ppm
Fe (Iron)	Max. 1 ppm	K (Potassium)	Max. 10 ppm
Na (Sodium)	Max. 10 ppm	Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.5 ppm		

Cat. No.	Pk	Pack type
20599.231	250 g	Plastic bottle for solids
20599.260	500 g	Plastic bottle for solids
20599.297	1 kg	Plastic bottle for solids

Phenol, detached crystals Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	Passes test
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity	Passes test
Solidification point	Min. 39.5 °C
Residue on evaporation	Max. 0.05 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20596.297	1 kg	Plastic bottle for solids
20596.468	25 kg	Plastic drum

Phenol, detached crystals GPR RECTAPUR®

Assay	Min. 99.0 %
Congealing temperature	Min. 39.5 °C
Evaporation residue	Max. 0.025 %

Cat. No.	Pk	Pack type
20598.294	1 kg	Plastic bottle for solids
20598.465	25 kg	Metal drum

Phenol saturated with buffer

Danger
H341 H301+H311+H331 H373 H314
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-95-2
Index 604-001-00-2
EINECS: 203-632-7
UN: 2821
ADR 6.1,II

C_6H_5OH
Storage Temperature: Ambient temperature

Phenol saturated with buffer (pH 4.5) for biotechnology

An ideal replacement for water-saturated phenol in many protocols. Offers the high purity and performance of water saturated phenol with greatly enhanced stability and safety.

O.D.@ 330 nm	0.2
O.D.@ 405 nm	0.1
O.D.@ 510 nm	0.1
pH (Buffer) @25 °C	4.1 - 4.5
Purity	≤ 99.0 %

Cat. No.	Pk	Pack type
0981-100ML	100 ml	Glass bottle
0981-400ML	400 ml	Glass bottle

Phenol saturated with buffer for biotechnology

Packaged at pH 6.6, this mixture is provided with a supplemental alkaline buffer that allows the researcher to easily increase the pH to 7.9 for DNA purification.

Abs.@ 330 nm	0.2
Abs.@ 405 nm	0.1
Abs.@ 510 nm	0.1
pH (Buffer) @25 °C	7.7 - 8.1
Purity	≤ 99.0 %

Cat. No.	Pk	Pack type
0945-100ML	100 ml	Glass bottle
0945-400ML	400 ml	Glass bottle

Phenol saturated with buffer for biotechnology

Ready-to-use, single-phase phenol solution that does not have to be equilibrated with a buffering solution prior to use.

Conductivity (5%, Water) @25 °C	140 µS
pH (5%, Water) @25 °C	7.5 - 7.8

Cat. No.	Pk	Pack type
K168-100ML	100 ml	Glass bottle
K168-400ML	400 ml	Glass bottle

Phenol liquified

Danger
H341 H301+H311+H331 H373 H314
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-95-2
Index 604-001-00-2
EINECS: 203-632-7
UN: 2821
ADR 6.1,II

C_6H_5OH
Storage Temperature: Ambient temperature

Phenol 80% liquified

Assay	78.5 to 81.5 %

Cat. No.	Pk	Pack type
294785A	2,5 l	Glass bottle SAFEBREAK

Phenol liquefied/Tris-Cl

Danger
H341 H301+H311+H331 H373 H314
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 108-95-2
Index 604-001-00-2
EINECS: 203-632-7
UN: 2821
ADR 6.1,II

C_6H_5OH
Storage Temperature: Ambient temperature

Phenol liquefied/Tris-Cl Gen-Apex® for DNA extraction

Cat. No.	Pk	Pack type
33595.188	100 ml	Glass bottle

Phenol : Chloroform : iso-Amyl alcohol (125:24:1 v:v:v)

UN: 2810
ADR 6.1,II
Storage Temperature: Ambient temperature

Phenol : Chloroform : iso-Amyl alcohol (125:24:1) for biotechnology

An optimised mixture that can be used directly to replace the phenol and chloroform recommended in the one-step phenol purification method.

Abs.@ 330nm....0.2
Abs.@ 405nm....0.1
Abs.@ 510nm....0.1
pH @25 °C....4.3 - 4.7
Purity....99.0

Cat. No.	Pk	Pack type
E277-100ML	100 ml	Glass bottle
E277-400ML	400 ml	Glass bottle

Phenol : Chloroform : iso-Amyl alcohol (25:24:1 v:v:v)

Danger
H351 H341 H301+H311+H331 H373 H314
P201 P281 P301+P330+P331 P302+P352 P304+P340
P309+P310
UN: 2810
ADR 6.1,II
Storage Temperature: Ambient temperature

Phenol : Chloroform : iso-Amyl alcohol (25:24:1), high purity

Premixed with isoamyl alcohol (25:24:1). A 1:1 saturated phenol:chloroform mixture is ideal for the extraction of protein from DNA preparations. Packaged at pH 6.7, this product is accompanied by a separate alkaline buffer which allows the researcher to increase the pH to 8.0.

Appearance....PASS
DNase....NONE
Identification....PASS
O.D.@ 330 nm....0.2
O.D.@ 405 nm....0.1
O.D.@ 510 nm....0.1
pH @25 °C....6.5 - 6.9
Protease....NONE
Purity....99.0 %
RNase....NONE

Cat. No.	Pk	Pack type
0883-100ML	100 ml	Glass bottle
0883-400ML	400 ml	Glass bottle

Phenol : Chloroform : iso-Amyl alcohol (25:24:1) for biotechnology

Ready-to-use, single-phase solution that does not have to be equilibrated with a buffering purification solution prior to use. Premixed with Isoamyl Alcohol (25:24:1).

Conductivity (50%, Water)@25 °C....250 - 290 uS
pH (50 %, Water)@25 °C....8.05 - 8.35

Cat. No.	Pk	Pack type
K169-100ML	100 ml	Glass bottle
K169-400ML	400 ml	Glass bottle

Phenol : Chloroform : iso-Amyl alcohol (25:24:1)

A 25:24:1 mixture of phenol, chloroform, and isoamyl alcohol useful for preparing RNA with maximal recovery of poly (A+) RNA for subsequent mRNA purification and generation of cDNA.

O.D.@ 330nm....0.2
O.D.@ 405nm....0.1
O.D.@ 510nm....0.1
pH @25 °C....4.9 - 5.5
Purity....99.0 %

Cat. No.	Pk	Pack type
0966-100ML	100 ml	Glass bottle
0966-400ML	400 ml	Glass bottle

Phenol Mix 1, EPA 604

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Flash Pt: 12 °C
Storage Temperature: Ambient temperature

Phenol Mix 1, EPA 604

0.5 mg/ml of each component in methanol

2,4-Dichlorophenol ; 2,4-Dimethylphenol ; 2,4-Dinitrophenol ; 4-Chloro-3-methylphenol; 2-Chlorophenol ; 2-Methyl-4,6-dinitrophenol ; 2-Nitrophenol ; 4-Nitrophenol ; Phenol; Pentachlorophenol; 2,4,6-Trichlorophenol

Cat. No.	Pk	Pack type
124742R	1 ml	Vial

Phenolphthalein

Danger
H350 H341 H361f
P201 P281 P308+P313

CAS 77-09-8
Index 604-076-00-1
EINECS: 201-004-7

$C_{20}H_{14}O_4$
M.W. 318.33 g/mol
Density: 1.3 g/cm^3 (20 °C)
Melting Pt: 258 to 262 °C
Storage Temperature: Ambient temperature

Phenolphthalein Ph. Eur.

Assay (calculated on dried substance)	98.0 to 101.0 %
Appearance	White/almost white powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Related substances	Passes test
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 200 ppm
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 0.5 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83544.180	100 g	Glass bottle

Phenolphthalein GPR RECTAPUR®

Suited for pH indicator	Passes test
Melting point	259 to 264 °C
Ignition residue (SO_4)	Max. 0.1 %
Insolubility in ethanol 96 % (1% W/V)	Max. 50 ppm

Cat. No.	Pk	Pack type
26237.231	250 g	Glass bottle for solids

Phenolphthalein (1 - 5%) in ethanol (50-80%)

Danger
H226 H350 H341
P201 P210 P243 P281 P308+P313

CAS 77-09-8
EINECS: 201-004-7
UN: 1170
ADR 3,III

$C_{20}H_{14}O_4$
Storage Temperature: Ambient temperature

Phenolphthalein 1% in ethanol 50% pH-indicator

1% solution in 50% ethanol.

Application test	conforms

Cat. No.	Pk	Pack type
210893Q	250 ml	Glass bottle
210894R	1 l	Glass bottle

Phenolphthalein (0.1 - < 1%) in ethanol (50-80%)

Danger
H226
P210 P243 P280

CAS 77-09-8
EINECS: 201-004-7
UN: 1170
ADR 3,III

$C_{20}H_{14}O_4$
Storage Temperature: Ambient temperature

Phenolphthalein 0.5% in ethanol 50% for milk analysis

pH-value (20°C)	6.5 to 7.0

Cat. No.	Pk	Pack type
210296B	2,5 l	Glass bottle

Phenolphthalein (0.1 - < 1%) in ethanol (>80%)

Danger
H225
P210 P243 P280

CAS 77-09-8
EINECS: 201-004-7
UN: 1170
ADR 3,II

$C_{20}H_{14}O_4$
Storage Temperature: Ambient temperature

Phenolphthalein 0.2% in ethanol TECHNICAL

Transition range: pH 8,2-9,8

Identification	Passes test

Cat. No.	Pk	Pack type
31724.295	1 l	Glass bottle

Phenolphthalein (1 - 5%) in 2-propanol

Danger
H225 H350 H341 H319 H336
P210 P281 P305+P351+P338 P308+P313

CAS 77-09-8
EINECS: 201-004-7
UN: 1219
ADR 3,II
Flash Pt: 12 °C

$C_{20}H_{14}O_4$
Density: 0.79 g/cm³ (20 °C)
Boiling Pt: 82 °C (1013 hPa)
Storage Temperature: Ambient temperature

Phenolphthalein 1% in 2-propanol TECHNICAL

Transition range: pH 8,2-9,8

Sensitivity	Passes test

Cat. No.	Pk	Pack type
8626.1000	1 l	Glass bottle

Phenol red (< 0.1%) in ethanol (>80%)

Danger
H225
P210 P243 P280

CAS 143-74-8
EINECS: 205-609-7
UN: 1170
ADR 3,II
Flash Pt: 20

$C_{19}H_{14}O_5S$
Storage Temperature: Ambient temperature

Phenol red 0.4 g/l in ethanol TECHNICAL

Transition range: pH 6,4 - 8,2

Identification	Passes test

Cat. No.	Pk	Pack type
34304.237	250 ml	Glass bottle

Phenol red 0.002% and ammonium sulphate 0.01% aqueous solution, buffered pH 4,7

CAS 34487-61-1
EINECS: 252-057-8

$C_{19}H_{13}NaO_5S$
Storage Temperature: Ambient temperature

Phenol red 0.002% and ammonium sulphate 0.01% aqueous solution, buffered pH 4,7 Reag. Ph. Eur. 1063604

Cat. No.	Pk	Pack type
87890.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phenol red 0.002% and ammonium sulphate 0.005% aqueous solution, buffered pH 4,7

CAS 34487-61-1
EINECS: 252-057-8

$C_{19}H_{13}NaO_5S$
Storage Temperature: Ambient temperature

Phenol red 0.002% and ammonium sulphate 0.005% aqueous solution, buffered pH 4,7 Reag. Ph. Eur. 1063603

Cat. No.	Pk	Pack type
87889.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

2-Phenoxyethanol

Ethylene glycol monophenyl ether , Phenyl cellosolve , β-Hydroxyphenetole , ω-Hydroxyphenetole

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 122-99-6
Index 603-098-00-9
EINECS: 204-589-7
Flash Pt: 121 °C (closed cup)

$C_6H_5OCH_2CH_2OH$
M.W. 138.17 g/mol
Density: 1.1094 g/cm³ (20 °C)
Boiling Pt: 245 °C (1013 hPa)
Melting Pt: 13 °C
Storage Temperature: Ambient temperature

2-Phenoxyethanol Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	Colourl. slightly visc. liq.
Identification C	Passes test
Relative density	1.105 to 1.110
Related substances	Max. 1.0 %
Phenol	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26244.290	1 l	Glass bottle

6-(2-Phenylacetamido)penicillanic acid potassium salt

See Penicillin G potassium salt p.344

Phenylalcohol

See Phenol p.358

Phenylamine

See Aniline p.47

N-Phenylaniline

See Diphenylamine p.153

N-Phenylbenzeneamine

See Diphenylamine p.153

Phenylcarbinol

See Benzyl alcohol p.64

Phenyl cellosolve

See 2-Phenoxyethanol p.361

Phenylchloride

See Chlorobenzene p.106

o-Phenylenediamine

1,2-Diaminobenzene , 1,2-Phenylenediamine , OPD

Danger
H351 H341 H301 H312+H332 H319 H317 H410
P201 P281 P273 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 95-54-5
Index 612-145-00-2
EINECS: 202-430-6
UN: 1673
ADR 6.1,III
Flash Pt: 110 °C

$C_6H_8N_2$
M.W. 108.14 g/mol
Density: 1.21 g/cm³ (20 °C)
Boiling Pt: 257 °C (1013 hPa)
Melting Pt: 103 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS o-Phenylenediamine, reagent grade

Widely used to detect horseradish peroxidase activity in ELISA and solution assays. Absorbs at 492 nm.

Ash	0.1 %
Purity	98.0 %

Cat. No.	Pk	Pack type
0688-25G	25 g	Plastic bottle for solids
0688-50G	50 g	Plastic bottle for solids

Phenylhydrazinium chloride in hydrochloric acid (1-10%)

CAS 59-88-1
EINECS: 200-444-7
UN: 1789
ADR 8,III

$C_6H_5NHNH_2 \cdot HCl$
M.W. 144.6 g/mol

Phenylhydrazinium chloride 0.36% in hydrochloric acid 5% Reag. Ph. Eur. 1064501

Cat. No.	Pk	Pack type
87892.230	250 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phenylmethane

See Toluene..... p.510

Phenylmethane-D8

See Toluene-[D8]..... p.511

Phloroglucinol hydrochloric solution

Danger
H226 H341 H319 H335 H315
P201 P210 P243 P281 P302+P352 P304+P340
P305+P351+P338 P312
UN: 2924
ADR 3,II
Flash Pt: 22 °C (closed cup)
Density: ~ 1.1 g/cm³ (20 °C)
Boiling Pt: Min. 78 °C (1013 hPa)

Phloroglucinol hydrochloric solution according to the NF Q 03-001 standard

Used in research of lignified fibres in paper

Appearance ..... Yellow-brown liquid
Identification ..... Passes test

Cat. No.	Pk	Pack type
26337.180	100 ml	Glass bottle

Phloxine B 0.1%

Density: 1.00 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

NEW Phloxine B 0.1% Q PATH® for microscopy

Ready to use solution for HPS histological staining.

IVD

Cat. No.	Pk	Pack type
10047229.	1 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Phosphatase substrate

See di-Sodium 4-nitrophenyl phosphate hexahydrate..... p.452

Phosphate standard solution, 1,000 mg/l phosphate in water

Density: 0.998 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Phosphate standard solution, 1,000 mg/l PO_4(3-) in water (from KH_2PO_4) ARISTAR® standard for ion chromatography

PO_4 in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458052B	100 ml	Plastic bottle
458054D	500 ml	Plastic bottle

Phosphate standard solution, 200 mg/l phosphate in water

Storage Temperature: Ambient temperature

Phosphate standard solution, 200 mg/l PO_4(3-) in water (from KH_2PO_4) ARISTAR® standard for ion chromatography

PO_4 in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458122V	100 ml	Plastic bottle

Standard solution (500 ppm PO_4) for the preparation of phosphate standard solution (5 ppm PO_4) Reag.Ph.Eur. 5002200

NEW Standard solution (500 ppm PO_4) for the preparation of phosphate standard solution (5 ppm PO_4) Reag.Ph.Eur. 5002200

Cat. No.	Pk	Pack type
88089.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phosphomolybdotungstic Reagent Dilute

UN: 3264
ADR 8,III

Phosphomolybdotungstic reagent dilute Reag. Ph. Eur. 1065001

Cat. No.	Pk	Pack type
87894.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phosphomolybdotungstic Reagent

Phosphomolybdotungstic reagent Reag. Ph. Eur. 1065000

Cat. No.	Pk	Pack type
87893.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phosphoric acid

See Orthophosphoric acid 85%..... p.332

meta-Phosphoric acid

Metaphosphoric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 37267-86-0
EINECS: 253-433-4
UN: 3260
ADR 8,III

$(HPO_3)n$
M.W. 79.98 g/mol
Density: 2.4 g/cm³ (20 °C)
Boiling Pt: 260 °C (1013 hPa)
Melting Pt: 21 °C
Storage Temperature: Ambient temperature

meta-Phosphoric acid, lumps AnalaR NORMAPUR® analytical reagent

Mixture of metaphosphoric acid and sodium metaphosphate ($NaPO_3$: 56 to 60%)

Heavy metals (as Pb)	Max. 20 ppm	Substances reducing $KMnO_4$ (as H_3PO_3)	Max. 100 ppm
Cl (Chloride)	Max. 20 ppm	SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 5 ppm	Ca (Calcium)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm	Mn (Manganese)	Max. 5 ppm

Cat. No.	Pk	Pack type
20632.236	250 g	Plastic bottle for solids
20632.293	1 kg	Plastic bottle for solids

meta-Phosphoric acid GPR RECTAPUR®

Containing approximately 40% HPO_3 and 60% $NaPO_3$

Identification	Passes test
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 20 ppm
Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
291903W	250 g	Plastic bottle for solids
291904A	500 g	Plastic bottle for solids

Phosphoric anhydride

See di-Phosphorus pentoxide p.364

Phosphoric acid - acetic acid - nitric acid mixture (77:19:4)

See Etch Mixture PES 77-19-04 ..... p.172

Phosphoric acid - acetic acid - nitric acid mixture (80:16:4)

See Etch Mixture PES 80-16-04 ..... p.172

Phosphorus (V) oxide chloride

See Phosphoryl trichloride p.364

Phosphorus oxychloride

See Phosphoryl trichloride p.364

Phosphorus standard solution, 10,000 mg/l P in water

CAS 7723-14-0
EINECS: 231-768-7
UN: 3264
ADR 8,III

P
M.W. 30.97 g/mol
Storage Temperature: Ambient temperature

Phosphorus standard solution, 10,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP

$NH_4H_2PO_4$ in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455792S	100 ml	Plastic bottle
455794U	500 ml	Plastic bottle

Supplied with certificate of analysis.

Phosphorus standard solution, 10,000 mg/l P in water (from P) ARISTAR® standard for ICP-MS

P in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457112P	100 ml	Plastic bottle

Supplied with certificate of analysis.

Phosphorus standard solution, 1,000 mg/l P in water

CAS 7723-14-0
EINECS: 231-768-7

P
M.W. 30.97 g/mol
Storage Temperature: Ambient temperature

Phosphorus standard solution, 1,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP

$NH_4H_2PO_4$ in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455782Q	100 ml	Plastic bottle
455784S	500 ml	Plastic bottle

Supplied with certificate of analysis.

Phosphorus standard solution, 1,000 mg/l P in water (from P) ARISTAR® standard for ICP-MS

P in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456842P	100 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Phosphorus standard solution, 1,000 mg/l P in water AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86698.180	100 ml	Plastic bottle
86698.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

di-Phosphorus pentoxide

Phosphorus pentoxide , Phosphoric anhydride

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1314-56-3
Index 015-010-00-0
EINECS: 215-236-1
UN: 1807
ADR 8,II

P_2O_5
M.W. 141.95 g/mol
Density: 2.253 g/cm³ (20 °C)
Melting Pt: 562 °C
Storage Temperature: Ambient temperature

di-Phosphorus pentoxide AnalaR NORMAPUR® analytical reagent

Assay	Min. 98.0 %	Insolubility in water	Max. 50 ppm
Reducing substances (as P_2O_3)	Max. 0.02 %	Total N (Nitrogen)	Max. 10 ppm
Cl (Chloride)	Max. 10 ppm	SO_4 (Sulphate)	Max. 50 ppm
As (Arsenic)	Max. 150 ppm	Cd (Cadmium)	Max. 5 ppm
Cu (Copper)	Max. 20 ppm	Fe (Iron)	Max. 10 ppm
K (Potassium)	Max. 100 ppm	Mn (Manganese)	Max. 5 ppm
Na (Sodium)	Max. 0.02 %	Ni (Nickel)	Max. 20 ppm
Pb (Lead)	Max. 10 ppm	Zn (Zinc)	Max. 20 ppm

Cat. No.	Pk	Pack type
21411.230	250 g	Plastic bottle for solids
21411.296	1 kg	Plastic bottle for solids

di-Phosphorus pentoxide TECHNICAL

Assay ..... Min. 98.0 %

Cat. No.	Pk	Pack type
21410.293	1 kg	Plastic bottle for solids

Phosphoryl trichloride

Phosphorus (V) oxide chloride , Phosphorus oxychloride

Danger
H330 H372 H302 H314
EUH014 EUH029
P280 P284 P301+P330+P331 P304+P340 P309+P310

CAS 10025-87-3
Index 015-009-00-5
EINECS: 233-046-7
UN: 1810
ADR 8,I

$POCl_3$
M.W. 153.33 g/mol
Density: 1.645 g/cm³ (20 °C)
Boiling Pt: 107 °C (1013 hPa)
Melting Pt: 1 °C
Storage Temperature: Ambient temperature

Phosphoryl trichloride FO Optipur® for the electronics industry

Cat. No.	Pk	Pack type

This product is not available in all countries. Please check with your local VWR International office or supplier.

Phosphotungstic acid hydrate

Dodecawolframophosphoric acid hydrate , Wolframophosphoric acid hydrate , Phosphotungstic acid hydrate , 12-Tungstophosphate hydrate

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 12501-23-4
EINECS: 215-682-7
UN: 3260
ADR 8,III

$H_3[P(W_3O_{10})_4]\cdot nH_2O$
M.W. 2880.17 g/mol
Melting Pt: 107 °C

Phosphotungstic acid hydrate AnalaR NORMAPUR® analytical reagent sodium free

Loss on ignition (750°C)	Max. 17 %	Total N (Nitrogen)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm	SO_4 (Sulphate)	Max. 100 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 20 ppm
K (Potassium)	Max. 0.02 %	Na (Sodium)	Max. 0.02 %
Pb (Lead)	Max. 20 ppm		

Cat. No.	Pk	Pack type
20636.183	100 g	Plastic bottle for solids

Phosphotungstic acid in orthophosphoric acid (10 - 25%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1343-93-7
EINECS: 215-682-7
UN: 3264
ADR 8,III

$H_3[P(W_3O_{10})_4]$
M.W. 2880.05 g/mol

Phosphotungstic acid 22% in orthophosphoric acid 11% Reag. Ph. Eur. 1065200

Cat. No.	Pk	Pack type
87896.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Phthalic acid bis(2-ethylhexyl) ester

See Bis(2-ethylhexyl) phthalate p.67

Phthalic acid dibutyl ester

See Dibutyl phthalate p.140

Phthalic acid diethyl ester

See Diethyl phthalate p.146

Phthalic acid potassium salt

See Potassium hydrogen phthalate p.379

Picric acid in aqueous solution

EUH001

CAS 88-89-1
EINECS: 201-865-9

$(O_2N)_3C_6H_2OH$

Picric acid 12 g/l in aqueous solution TECHNICAL

Assay ..... 1.15 to 1.30 %

Cat. No.	Pk	Pack type
84512.260	500 ml	Plastic bottle

Picric acid 10 g/l in aqueous solution Reag. Ph. Eur. 1065801

Cat. No.	Pk	Pack type
87897.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

PIPES

2,2'-(Piperazine-1,4-diyl)bis(ethanesulphonic) acid , Piperazine-N,N'-bis-2-ethanesulphonic acid , Piperazine-1,4-bis(2-ethanesulphonic acid)

CAS 5625-37-6
EINECS: 227-057-6

$C_8H_{18}N_2O_6S_2$
M.W. 302.37 g/mol
Boiling Pt: 499 °C (1013 hPa)
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS PIPES, high purity

Abs.@260 nm (1 %, NaOH 1N) 0.05
DNase ..... NONE
Heavy Metals (as Pb) ..... <5 ppm
pKa ..... 6.7 - 6.9
Protease ..... NONE
Purity ..... 98.0 %
Residue after Ignition ..... 0.3 %
RNase ..... NONE
Solubility (1%, 1N NaOH) ..... PASS

Cat. No.	Pk	Pack type
0488-100G	100 g	Plastic bottle for solids
0488-500G	500 g	Plastic bottle for solids

PIPES sesquisodium salt

2,2'-(Piperazine-1,4-diyl)bis(ethanesulphonic) acid sesquisodium salt , Sesquisodium piperazine-1,4-diethanesulphonate , Piperazine-1,4-bis(2-ethanesulphonic acid) sesquisodium salt , Piperazine-N,N'-bis-2-ethanesulphonic acid sesquisodium salt , PIPES-Na1,5

CAS 100037-69-2

$C_{16}H_{33}N_4Na_3O_{12}S_4$
M.W. 670.69 g/mol
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS PIPES, high purity

Chloride ..... 1.0 %
Heavy Metals ..... 0.0001 %
pKa (25 °C) ..... 6.70 - 6.90
Purity (Anhydrous) ..... 99.0 %

Cat. No.	Pk	Pack type
0169-100G	100 g	Plastic bottle for solids
0169-250G	250 g	Plastic bottle for solids

Plaster of Paris

See Calcium sulphate hemihydrate p.95

Plate Count Agar

See Microbiology

Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-06-4
EINECS: 231-116-1
UN: 1789
ADR 8,II

Pt
M.W. 195.08 g/mol
Storage Temperature: Ambient temperature

Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid (from Pt) ARISTAR® standard for ICP

Pt in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455802D	100 ml	Plastic bottle
455804F	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86701.180	100 ml	Plastic bottle
86701.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

pNPP substrate 30 mg/tablet

VWR CHEMICALS PNPP 30 mg substrate tablets

Preferred substrate for high sensitivity detection of alkaline phosphatase in EIA assays. Read at 405 nm. Each 175 mg tablet contains 30 mg of p-NPP.

Cat. No.	Pk	Pack type
0617-100TABS	100	Glass bottle
0617-1KT	1 KIT	Glass bottle

pNPP substrate 5 mg/tablet

VWR CHEMICALS PNPP 5 mg substrate tablets, reagent grade

Preferred substrate for high sensitivity detection of alkaline phosphatase in EIA assays. Read at 405 nm. Each 175 mg tablet contains 5 mg of p-NPP.

Abs.@309nm (1 tab/250mL Water) ..... 0.48 - 0.58
Background Color 0.14
Expiration Date ..... REPORT
Mean Tablet Weight ..... 170 - 180 mg

Cat. No.	Pk	Pack type
0405-100T	100	Glass bottle

PNPP

See di-Sodium 4-nitrophenyl phosphate hexahydrate p.452

Poly(chlorotrifluoroethylene) grease

Polychlorotrifluoroethene grease , PCTFE grease

CAS 9002-83-9

$(C_2ClF_3)_n$

Storage Temperature: Ambient temperature

Grease 90 VOLTALEF® 90

Cat. No.	Pk	Pack type
24510.185	100 g	

Poly(chlorotrifluoroethylene) 800

Polychlorotrifluoroethene 800 , PCTFE 800

CAS 9002-83-9

$(C_2ClF_3)_n$

M.W. 800 g/mol

Density: 1.9 g/cm³ (20 °C)

Oil 10 S VOLTALEF®

Identification ..... Passes test

Cat. No.	Pk	Pack type
24627.188	100 g	Glass bottle

Polyester-Wax

Polyester-Wax for microscopy

(Steedman, Nature, 1957, 179, 1345)

Cat. No.	Pk	Pack type
360704E	500 g	Plastic bottle

Technical data sheet and instructions available on vwr.com

Polyethylene glycol 8,000

PEG 8,000

CAS 25322-68-3

EINECS: 500-038-2

$H(OCH_2CH_2)_nOH$

M.W. average 8000 g/mol

Density: 1.125 g/cm³ (20 °C)

Boiling Pt: 250 °C (1013 hPa)

Storage Temperature: Ambient temperature

VWR CHEMICALS Polyethylene glycol 8,000 for biotechnology

DNase ..... NONE
pH (5 %, Water) @25 °C ..... 4.5 - 7.5
Purity ..... 99.0 %
RNase ..... NONE
Solidification Point ..... 55 - 64 °C

Cat. No.	Pk	Pack type
0159-500G	500 g	Plastic bottle for solids
0159-1KG	1 kg	Plastic bottle for solids
0159-2.5KG	2,5 kg	Bucket (Plastic)

Polyethylene glycol 8,000 30% in aqueous solution

CAS 25322-68-3

EINECS: 500-038-2

$H(OCH_2CH_2)nOH$

M.W. 8000 g/mol

Storage Temperature: Ambient temperature

VWR CHEMICALS Polyethylene glycol 8,000 30% in aqueous solution for biotechnology

DNase ..... NONE
pH @25 °C ..... 5.0 - 9.0
RNase ..... NONE
Sodium Chloride ..... 1400 - 1800 mM
Sterility ..... PASS

Cat. No.	Pk	Pack type
E523-100ML	100 ml	Plastic bottle

Polyethylene glycol 6,000

PEG 6,000

CAS 25322-68-3

EINECS: 500-038-2

$H(OCH_2CH_2)_nOH$

M.W. average 6000 g/mol

Density: 1.13 g/cm³ (20 °C)

Boiling Pt: Min. 250 °C (1013 hPa)

Melting Pt: 55 to 62 °C

Storage Temperature: Ambient temperature

Polyethylene glycol 6,000 for biochemistry

IR Spectrum ..... Passes test
Average molecular weight ..... 5000 to 7000
Heavy metals (as Pb) ..... Max. 10 ppm
Absorbance (260 nm) (0.01 mol/l) ..... Max. 0.2
Absorbance (280 nm) (0.01 mol/l) ..... Max. 0.1

Cat. No.	Pk	Pack type
442714K	500 g	Plastic bottle for solids

Polyethylene glycol 6,000 Electran® Molecular biology grade

Cat. No.	Pk	Pack type
443912S	100 g	Plastic bottle
443915V	1 kg	Plastic bottle

Polyethylene glycol 6,000 TECHNICAL

Hydroxyl value ..... 16 to 22
Solidification point ..... 55 to 61 °C

Cat. No.	Pk	Pack type
26603.293	1 kg	Plastic bottle for solids
26603.360	5 kg	Bucket (Plastic)
26603.460	25 kg	Bucket (Plastic)

Polyethylene glycol 4,000

PEG 4,000

CAS 25322-68-3

EINECS: 500-038-2

Flash Pt: 250 °C

$H(OCH_2CH_2)_nOH$

M.W. average 4000 g/mol

Density: 1.13 g/cm³ (20 °C)

Boiling Pt: Min. 250 °C (1013 hPa)

Melting Pt: 53 to 58 °C

Storage Temperature: Ambient temperature

Polyethylene glycol 4,000 TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26606.293	1 kg	Plastic bottle for solids
26606.464	25 kg	Bucket (Plastic)

Polyethylene glycol 1,500
PEG 1,500

Warning
H319
P280 P305+P351+P338

CAS 25322-68-3
EINECS: 500-038-2
Flash Pt: 260 °C

$H(OCH_2CH_2)_nOH$
M.W. average 1500 g/mol
Density: 1.13 g/cm³ (20 °C)
Boiling Pt: Min. 250 °C (1013 hPa)
Melting Pt: 44 to 48 °C
Storage Temperature: Ambient temperature

Polyethylene glycol 1,500 TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26604.296	1 kg	Plastic bottle for solids

Polyethylene glycol 400
PEG 400

CAS 25322-68-3
EINECS: 500-038-2
Flash Pt: 245 °C

$H(OCH_2CH_2)_nOH$
M.W. average 400 g/mol
Density: 1.13 g/cm³ (20 °C)
Boiling Pt: Min. 250 °C (1013 hPa)
Melting Pt: 4 to 8 °C
Storage Temperature: Ambient temperature

Polyethylene glycol 400 TECHNICAL

Identification ..... Passes test
Density (20/4) ..... 1.120 to 1.130
Hydroxyl value ..... 267 to 295
Conforms to BDH 29571 ..... Passes test

Cat. No.	Pk	Pack type
26602.290	1 l	Glass bottle
26602.320	2,5 l	Glass bottle
26602.460	25 l	Plastic drum

Polyethylene glycol 300
PEG 300

CAS 25322-68-3
EINECS: 500-038-2
Flash Pt: 220 °C (open cup)

$H(OCH_2CH_2)_nOH$
M.W. average 300 g/mol
Density: 1.13 g/cm³ (20 °C)
Melting Pt: -15 to -10 °C
Storage Temperature: Ambient temperature

Polyethylene glycol 300 TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26600.293	1 l	Glass bottle

Polyoxyethylene-20-Sorbitan Monolaurate
See Tween® 20 (Polysorbate) p.525

Polyoxyethylene-20-Sorbitan Monooleate
See Tween® 80 (Polysorbate) p.525

Polypropylene glycol 2,000
CAS 25322-69-4
EINECS: 500-039-8
Flash Pt: 112.8 °C (closed cup)

$H(OCH_2CH_2CH_2)_nOH$
M.W. average 2000 g/mol
Density: 1.005 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Polypropylene glycol 2,000

Colouration ..... Max. 20 APHA
Hydroxyl value ..... 53 to 58
Viscosity (25°C) ..... 300 to 340 mPa.s
Water ..... Max. 0.05 %

Cat. No.	Pk	Pack type
297776T	2,5 l	Plastic bottle

Polysorbate 20
See Tween® 20 (Polysorbate) p.525

Polysorbate 80
See Tween® 80 (Polysorbate) p.525

Polyvidone 40,000
See Polyvinylpyrrolidone 40,000 (K30) p.368

Polyvidone K30
See Polyvinylpyrrolidone 40,000 (K30) p.368

Polyvinylacetate 35,000-45,000
CAS 9003-20-7
M.W. 35000 to 45000

Polyvinylacetate 35,000-45,000

Viscosity (10 %; ethyl acetate) ..... 2.5 to 3.0 mPa.s
Acidity ..... Max. 0.008 meq/g
Residual monomer ..... Max. 5 ppm

Cat. No.	Pk	Pack type
87121.290	1 kg	Plastic bottle for solids

Polyvinyl alcohol 22,000, min. 98% hydrolyzed
CAS 9002-89-5

$(CH_2CHOH)_n$
M.W. average 22000 g/mol

Polyvinyl alcohol 22,000, min. 98% hydrolyzed

Viscosity (20°C; 4 %; water) ..... 5.0 to 6.0 mPa.s
Degree of hydrolysis ..... Min. 98 %
Ignition residue (SO_4) ..... Max. 1 %
Loss on drying (105°C) ..... Max. 5 %

Cat. No.	Pk	Pack type
305735B	500 g	Plastic bottle for solids

Polyvinyl alcohol 115,000, min. 88% hydrolyzed

CAS 9002-89-5

$(CH_2CHOH)_n$

M.W. average 115000 g/mol

Polyvinyl alcohol 115,000, min. 88% hydrolyzed

Appearance	White granular powder
pH (4 %)	4.5 to 6.5
Viscosity (20°C; 4 %; water)	46 to 54 mPa.s
Degree of hydrolysis	86.5 to 89.0 %
Ignition residue	Max. 0.5 %
Loss on drying (60°C)	Max. 5.0 %
Organic volatile impurities	Max. 1 %

Cat. No.	Pk	Pack type
297914D	500 g	Plastic bottle for solids

Polyvinyl alcohol, polymer with vinyl acetate, 25/140

CAS 25213-24-5

RHODOVIOL® 25/140

Appearance	Granular powder
Solvent	Water
Acidity	Max. 0.08 meq/g
Apparent density	0.530 to 0.600
Ester value	120 to 150
pH (20°C)	5 to 7
Viscosity (20°C; 4 %; water)	24 to 30 mPa.s
Ignition residue (as Na_2O)	Max. 0.5 %
Volatile matter	Max. 5 %

Cat. No.	Pk	Pack type
20954.295	1 kg	Plastic bottle for solids

Polyvinylpyrrolidone 360,000 (K90)

Polyvidone 360,000 , Polyvidone K90 , Polyvinylpyrrolidon K90 , Polyvinylpyrrolidone 360,000 , PVP 360,000 , PVP K90 , PVP360

CAS 9003-39-8

$(C_6H_9NO)_n$

M.W. average 360000 g/mol

Storage Temperature: Ambient temperature

Polyvinylpyrrolidone 360,000 (K90) Electran® Molecular biology grade

Cat. No.	Pk	Pack type
436032C	100 g	Glass bottle
436035F	1 kg	Glass bottle

Polyvinylpyrrolidone 40,000 (K30)

Polyvidone 40,000 , Polyvidone K30 , Polyvinylpyrrolidon K30 , Polyvinylpyrrolidone 40,000 , PVP 40,000 , PVP K30 , PVP40

CAS 9003-39-8

$(C_6H_9NO)_n$

M.W. average 40000 g/mol

Storage Temperature: Ambient temperature

Polyvinylpyrrolidone 40,000 (K30) Ph. Eur.

Assay (N) (calculated on anhydrous)	11.5 to 12.8 %
Appearance	White powder
Identification A	Passes test
Identification E	Passes test
Solution S	Passes test
Solution S1	Passes test
Appearance of solution	Passes test
pH (5 %)	3.0 to 5.0
Viscosity (expressed as K-value)	27.0 to 32.4
Aldehydes (as C_2H_4O)	Max. 500.0 ppm
Peroxides (as H_2O_2)	Max. 400 ppm
Formic acid	Max. 0.5 %
Hydrazine	Max. 1 ppm
Impurity A	Max. 10 ppm
Impurity B	Max. 3.0 %
Heavy metals (as Pb)	Max. 10 ppm
Water	Max. 5.0 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26617.291	1 kg	Plastic bottle for solids
26617.360	5 kg	Bucket (Plastic)

VWR CHEMICALS Polyvinylpyrrolidone 40,000 (K30), high purity

Heavy Metals	< 0.001 %
pH (5 %, Water) @25 °C	3.0 - 7.0
Purity (Dry Basis)	99.0 %

Cat. No.	Pk	Pack type
0507-500G	500 g	Plastic bottle for solids
0507-1KG	1 kg	Plastic bottle for solids

Polyvinylpyrrolidone 40,000 (K30), dry TECHNICAL

(Average molecular weight : 40.000 - PVP)

Identification	Passes test

Cat. No.	Pk	Pack type
26616.184	100 g	Plastic bottle for solids
26616.297	1 kg	Bucket (Plastic)

Polyvinylpyrrolidone K30

See Polyvinylpyrrolidone 40,000 (K30) p.368

Ponceau S

Warning

H319 H335 H315

P280 P302+P352 P304+P340 P305+P351+P338

P309+P311

CAS 6226-79-5

EINECS: 228-319-2

$C_{22}H_{12}N_4Na_4O_{13}S_4$

Storage Temperature: Ambient temperature

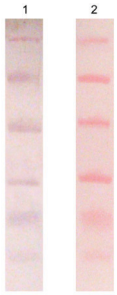
VWR CHEMICALS Ponceau S, high purity

A substitute for acid fuschin in Van Gieson stain. Also used for staining proteins after electrophoresis.

DNase	NONE
Em (520 nm, Water)	27000
Loss on Drying	6.0 %
Protease	NONE
RNase	NONE
Solubility (0.1%, Water)	PASS

Cat. No.	Pk	Pack type
0860-50G	50 g	Glass bottle
0860-100G	100 g	Plastic bottle for solids

Ponceau S, proteomics grade



ProAct™ and Ponceau S Staining of proteins. Mid/Low Range Protein Molecular Weight Marker (J450) was separated on a 12.5% Fluorescent SPRINT NEXT GEL® (M318) and then semi-dry transferred from the gel to a PVDF membrane with Rapid Transfer Buffer (N789). The membrane was cut in half and stained with either ProAct™ (M282, lane 1) or Ponceau S (K973, lane 2) stain.

Abs.@ Lambda Max (1:50, Water)..... 0.9000 - 1.4000
Lambda Max (1:50, Water)..... 517 - 523 nm
pH (1:50, Water) @25 °C..... REPORT

Cat. No.	Pk	Pack type
K793-50ML	50 ml	Plastic bottle
K793-500ML	500 ml	Plastic bottle

POPSO disodium salt (β,β'-Dihydroxypiperazine-1,4-dipropanesulphonic acid disodium salt)

CAS 108321-07-9

$C_{10}H_{20}N_2Na_2O_8S_2$
Storage Temperature: Ambient temperature

POPSO disodium salt (β,β'-Dihydroxypiperazine-1,4-dipropanesulphonic acid disodium salt), ultrapure

Heavy Metals (as Pb)..... 0.0005 %
Moisture (KF)..... 5 %
Purity..... 97 %
Solubility (10%, Water)..... PASS

Cat. No.	Pk	Pack type
J590-100G	100 g	Plastic bottle for solids

Potassium standard solution, 10,000 mg/l K in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-09-7
EINECS: 231-119-8
UN: 3264
ADR 8,III

K
M.W. 39.1 g/mol
Density: 1.031 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Potassium standard solution, 10,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ICP-MS

K in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457122R	100 ml	Plastic bottle

Supplied with certificate of analysis.

Potassium standard solution, 10,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP

KNO_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455832J	100 ml	Plastic bottle
455834L	500 ml	Plastic bottle

Supplied with certificate of analysis.

Potassium standard solution, 1,000 mg/l K in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-09-7
EINECS: 231-119-8
UN: 3264
ADR 8,III

K
M.W. 39.1 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ICP-MS

K in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456852R	100 ml	Plastic bottle

Supplied with certificate of analysis.

Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ion chromatography

K in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458222B	100 ml	Plastic bottle

Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP

KNO_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455822H	100 ml	Plastic bottle
455824J	500 ml	Plastic bottle

Supplied with certificate of analysis.

Potassium standard solution, 1,000 mg/l K in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86686.180	100 ml	Plastic bottle
86686.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Potassium standard solution, 200 mg/l K in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-09-7
EINECS: 231-119-8
UN: 3264
ADR 8,III

K
M.W. 39.1 g/mol
Storage Temperature: Ambient temperature

Potassium standard solution, 200 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ion chromatography

K in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458302A	100 ml	Plastic bottle

Potassium acetate

Acetic acid potassium salt

CAS 127-08-2
EINECS: 204-822-2
Flash Pt: Min. 250 °C

CH_3COOK
M.W. 98.14 g/mol
Density: 1.57 g/cm³ (25 °C)
Melting Pt: 304 °C
Storage Temperature: Ambient temperature

Potassium acetate AnalaR NORMAPUR® analytical reagent

Assay (calculated on anhydrous)	Min. 99.0 %	Acidity or alkalinity	Max. 0.005 meq/g
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Loss on drying (130°C)	Max. 3.0 %	Cl (Chloride)	Max. 50 ppm
PO_4 (Phosphate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm	Fe (Iron)	Max. 5 ppm
Na (Sodium)	Max. 0.4 %		

Cat. No.	Pk	Pack type
26667.236	250 g	Plastic bottle for solids
26667.293	1 kg	Plastic bottle for solids
26667.320	2,5 kg	Plastic bottle for solids

Potassium acetate Ph. Eur.

Assay (calculated on dried substance)	99.0 to 101.0 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (5 %)	7.5 to 9.0
Reducing substances	Passes test
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 200 ppm
Fe (Iron)	Max. 20 ppm
Heavy metals (as Pb)	Max. 4 ppm
Na (Sodium)	Max. 0.5 %
Loss on drying (105°C)	Max. 3.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
85507.290	1 kg	Plastic bottle for solids

Potassium acetate GPR RECTAPUR®

Assay (calculated on anhydrous)	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
26664.293	1 kg	Plastic bottle for solids
26664.362	5 kg	Bucket (Plastic)

Potassium acetate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
437063N	250 g	Plastic bottle for solids
437065P	1 kg	Plastic bottle

Potassium acetate buffer solution

CAS 127-08-2
EINECS: 204-822-2

CH_3COOK
Storage Temperature: Ambient temperature

Potassium acetate buffer solution pH 7.5 (1 mol/l)

Acetate	0.8 - 1.1 M
DNase	NONE
pH @25°C	7.3 - 7.7
RNase	NONE

Cat. No.	Pk	Pack type
J616-250ML	250 ml	Plastic bottle

Potassium bicarbonate

See Potassium hydrogen carbonate p.378

Potassium bisulphate

See Potassium hydrogen sulphate p.380

Potassium bromate

Danger
H271 H350 H301
P201 P210 P281 P309+P310

CAS 7758-01-2
Index 035-003-00-6
EINECS: 231-829-8
UN: 1484
ADR 5.1,II

Restricted to professional users.

$KBrO_3$
M.W. 167 g/mol
Density: 3.218 g/cm³ (20 °C)
Melting Pt: 350 °C
Storage Temperature: Ambient temperature

Potassium bromate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.8 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Total N (Nitrogen)	Max. 10 ppm
Br (Bromide)	Max. 0.02 %	SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 1 ppm	Na (Sodium)	Max. 5 ppm

Cat. No.	Pk	Pack type
26703.232	250 g	Plastic bottle for solids

Potassium bromide

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7758-02-3
EINECS: 231-830-3

KBr
M.W. 119 g/mol
Density: 2.75 g/cm³ (20 °C)
Boiling Pt: 1435 °C (1013 hPa)
Melting Pt: 730 °C
Storage Temperature: Ambient temperature

Potassium bromide AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Acidity or alkalinity	Passes test
pH (20°C; 5 %)	5.0 to 8.0	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Loss on drying (105°C)	Max. 0.5 %
BrO_3 (Bromate)	Max. 10 ppm	Cl (Chloride)	Max. 0.1 %
I (Iodide)	Max. 10 ppm	IO_3 (Iodate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ba (Barium)	Max. 20 ppm
Ca (Calcium)	Max. 10 ppm	Fe (Iron)	Max. 5 ppm
Mg (Magnesium)	Max. 10 ppm	Na (Sodium)	Max. 0.02 %

Cat. No.	Pk	Pack type
26708.238	250 g	Plastic bottle for solids
26708.295	1 kg	Plastic bottle for solids

Potassium bromide GPR RECTAPUR®

Assay	Min. 98.5 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.5 %
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
26704.292	1 kg	Plastic bottle for solids

Potassium carbonate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 584-08-7
EINECS: 209-529-3

KCO_3
M.W. 138.21 g/mol
Density: 2.42 g/cm³ (20 °C)
Melting Pt: 891 °C
Storage Temperature: Ambient temperature

Potassium carbonate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.0 %	Ba (Barium)	Passes test
CN (Cyanide)	Passes test	Sulphur compounds (as S)	Passes test
Free potassium hydroxide	Max. 0.05 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Substances precipitated by NH_4OH	Max. 100 ppm
Cl (Chloride)	Max. 30 ppm	NO_3 (Nitrate)	Max. 30 ppm
PO_4 (Phosphate)	Max. 10 ppm	$SO_4 + SO_3$ (as SO_4)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm	Ca + Mg (as Ca)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm	Na (Sodium)	Max. 0.2 %

Cat. No.	Pk	Pack type
26726.260	500 g	Plastic bottle for solids
26726.297	1 kg	Plastic bottle for solids
26726.322	2,5 kg	Plastic bottle for solids
26726.460	25 kg	Bucket (Plastic)

Potassium carbonate AnalaR NORMAPUR® analytical reagent sodium free

Assay (calculated on dried substance)	Min. 99.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Loss on drying (300°C)	Max. 1.0 %
Substances precipitated by NH_4OH	Max. 100 ppm	Total N (Nitrogen)	Max. 10 ppm
Total S (as SO_4)	Max. 30 ppm	Cl (Chloride)	Max. 30 ppm
PO_4 (Phosphate)	Max. 10 ppm	SiO_4 (as SiO_2)	Max. 50 ppm
Ca (Calcium)	Max. 20 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm	Mg (Magnesium)	Max. 20 ppm
Na (Sodium)	Max. 0.02 %	Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
26727.267	500 g	Plastic bottle for solids

Potassium carbonate GPR RECTAPUR®

Assay (on anhydrous substance)	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
$SO_4 + SO_3$ (as SO_4)	Max. 100 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
26724.291	1 kg	Plastic bottle for solids
26724.360	5 kg	Bucket (Plastic)

Potassium chlorate

Danger
H271 H302+H332 H411
P210 P280 P273 P304+P340 P309+P311

CAS 3811-04-9
Index 017-004-00-3
EINECS: 223-289-7
UN: 1485
ADR 5.1,II

$KClO_3$
M.W. 122.55 g/mol
Density: 2.34 g/cm³ (20 °C)
Boiling Pt: 400 °C (1013 hPa)
Melting Pt: 356 °C
Storage Temperature: Ambient temperature

Potassium chlorate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Acidity or alkalinity	Max. 0.002 meq/g
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Total N (Nitrogen)	Max. 100 ppm	BrO_3 (Bromate)	Max. 100 ppm
Cl (Chloride)	Max. 5 ppm	SO_4 (Sulphate)	Max. 50 ppm
As (Arsenic)	Max. 2 ppm	Ba (Barium)	Max. 20 ppm
Ca (Calcium)	Max. 5 ppm	Fe (Iron)	Max. 5 ppm
Na (Sodium)	Max. 100 ppm		

Cat. No.	Pk	Pack type
26746.296	1 kg	Plastic bottle for solids

Potassium chloride

CAS 7447-40-7
EINECS: 231-211-8

KCl
M.W. 74.55 g/mol
Density: 1.98 g/cm³ (20 °C)
Boiling Pt: 1420 °C (1013 hPa)
Melting Pt: 773 °C
Storage Temperature: Ambient temperature

Potassium chloride AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Acidity or alkalinity	Max. 0.0005 meq/g
pH (5 %)	5.0 to 8.0	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 100 ppm	Total N (Nitrogen)	Max. 20 ppm
Br (Bromide)	Max. 0.05 %	I (Iodide)	Max. 20 ppm
PO_4 (Phosphate)	Max. 5 ppm	SO_4 (Sulphate)	Max. 50 ppm
Al (Aluminium)	Max. 10 ppm	As (Arsenic)	Max. 0.5 ppm
Ba (Barium)	Max. 10 ppm	Ca (Calcium)	Max. 10 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 2 ppm
Mg (Magnesium)	Max. 20 ppm	Na (Sodium)	Max. 0.02 %

Cat. No.	Pk	Pack type
26764.232	250 g	Plastic bottle for solids
26764.260	500 g	Plastic bottle for solids
26764.298	1 kg	Plastic bottle for solids
26764.367	5 kg	Plastic bottle for solids
26764.460	25 kg	Bucket (Plastic)

Potassium chloride Ph. Eur., USP

Assay (calculated on dried substance)	99.0 to 100.5 %
Appearance	Colourless fine crystals
Identification	Passes test
Solution S	Passes test Ph.Eur.
Appearance of solution	Passes test Ph.Eur.
Calcium and magnesium	Passes test USP
Acidity or alkalinity	Passes test
Br (Bromide)	Max. 0.1 %
I (Iodide)	Max. 0.005 %
SO_4 (Sulphate)	Max. 300 ppm
Ba (Barium)	Passes test Ph.Eur.
Fe (Iron)	Max. 20 ppm
Na (Sodium)	Passes test USP
Mg and alkaline-earth metals (as Ca)	Max. 200 ppm
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C; 3 h)	Max. 1.0 %
Residues of metal catalysts or reagents	Unlikely by manuf.process
Residual solvents	Unlikely by manuf.process

Cat. No.	Pk	Pack type
26760.295	1 kg	Plastic bottle for solids
26760.364	5 kg	Plastic bottle for solids
26760.466	25 kg	Bucket (Plastic)

Potassium chloride GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
26759.291	1 kg	Plastic bottle for solids
26759.360	5 kg	Plastic bottle for solids
26759.462	25 kg	Bucket (Plastic)

Potassium chloride Electran® Molecular biology grade

Cat. No.	Pk	Pack type
437023F	250 g	Plastic bottle for solids
437025H	1 kg	Plastic bottle

Potassium chloride TECHNICAL

Assay	Min. 97 %

Cat. No.	Pk	Pack type
26752.366	5 kg	Bucket (Plastic)

Potassium chloride 3 mol/l (3 N) in aqueous solution AVS TITRINORM® electrolytic solution

Titer	2.95 to 3.05 mol/l

Cat. No.	Pk	Pack type
83605.180	100 ml	Plastic bottle
83605.260	500 ml	Plastic bottle
83605.290	1 l	Plastic bottle

Potassium chloride 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1069101

Cat. No.	Pk	Pack type
87898.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium chloride aqueous solution saturated with silver chloride in aqueous solution

CAS 7447-40-7
EINECS: 231-211-8

KCl + AgCl
M.W. 74.55 g/mol
Density: 1.13 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Potassium chloride aqueous solution 3 mol/l (3 N) saturated with silver chloride aqueous solution AVS TITRINORM® for filling electrodes

Titer	2.95 to 3.05 mol/l
Ag (Silver)	Passes test

Cat. No.	Pk	Pack type
83606.260	500 ml	Plastic bottle
83606.290	1 l	Plastic bottle

Potassium chromate

Danger
H350i H340 H319 H335 H315 H317 H410
P201 P281 P273 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 7789-00-6
Index 024-006-00-8
EINECS: 232-140-5
UN: 3087
ADR 5.1,III

Restricted to professional users.

K_2CrO_4
M.W. 194.19 g/mol
Density: 2.73 g/cm³ (20 °C)
Boiling Pt: 1000 °C (1013 hPa)
Melting Pt: 985 °C
Storage Temperature: Ambient temperature

Potassium chromate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	pH (20°C; 5 %)	8.6 to 9.8
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 100 ppm	Ca (Calcium)	Max. 50 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 15 ppm
Na (Sodium)	Max. 0.03 %	Pb (Lead)	Max. 50 ppm

Cat. No.	Pk	Pack type
26774.236	250 g	Plastic bottle for solids
26774.293	1 kg	Plastic bottle for solids

Potassium chromate GPR RECTAPUR®

Assay	Min. 99.0 %
Identification	Passes test
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.05 %
Ca (Calcium)	Max. 100 ppm

Cat. No.	Pk	Pack type
29598AP	5 kg	Plastic bottle for solids

Potassium chromate (1 - < 10%) in aqueous solution

CAS 7789-00-6
Index 024-006-00-8
EINECS: 232-140-5
UN: 3287
ADR 6.1,III

Restricted to professional users.

K_2CrO_4

Potassium chromate 5% in aqueous solution Reag. Ph. Eur. 1069201

Cat. No.	Pk	Pack type
87899.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium chromate 5% in aqueous solution

5% w/v (free from Cl) for titration of chloride using silver nitrate

Assay (W/V) ..... 4.975 to 5.025 %
Cl (Chloride) ..... Max. 2 ppm

Cat. No.	Pk	Pack type
160254K	500 ml	Glass bottle

tri-Potassium citrate monohydrate

Potassium citrate tribasic monohydrate , Citric acid tripotassium salt monohydrate , Tripotassium 2-hydroxypropane-1,2,3-tricarboxylate monohydrate

CAS 6100-05-6
EINECS: 212-755-5

$HOC(COOK)(CH_2COOK)_2 \cdot H_2O$
M.W. 324.41 g/mol
Density: 1.98 g/cm³ (20 °C)
Melting Pt: 230 °C

tri-Potassium citrate monohydrate AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance) ..... Min. 99.0 %
pH (20°C; 5 %) ..... 8.0 to 9.5
C_2O_4 (Oxalate) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm
Solution in water ..... Passes test
Total N (Nitrogen) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 20 ppm
Cu (Copper) ..... Max. 1 ppm
Na (Sodium) ..... Max. 0.2 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
102004S	500 g	Plastic bottle for solids

tri-Potassium citrate monohydrate GPR RECTAPUR®

Assay ..... Min. 99.0 %
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
26789.294	1 kg	Plastic bottle for solids

Potassium citrate tribasic monohydrate

See tri-Potassium citrate monohydrate p.373

Potassium cyanide

Danger
H300+H310+H330 H410
EUH032
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 151-50-8
Index 006-007-00-5
EINECS: 205-792-3
UN: 1680
ADR 6.1,I

KCN
M.W. 65.12 g/mol
Density: 1.55 g/cm³ (20 °C)
Boiling Pt: 1625 °C (1013 hPa)
Melting Pt: 634 °C
Storage Temperature: Ambient temperature

Potassium cyanide AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 98.0 %
Cl (Chloride) ..... Max. 0.02 %
S (Sulphide) ..... Max. 5 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Na (Sodium) ..... Max. 0.5 %
Insolubility in water ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 50 ppm
SCN (Thiocyanate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 100 ppm
Pb (Lead) ..... Max. 2 ppm

Cat. No.	Pk	Pack type
26802.234	250 g	Plastic bottle for solids
26802.291	1 kg	Plastic bottle for solids

Potassium cyanide TECHNICAL

Assay ..... Min. 96 %

Cat. No.	Pk	Pack type
26800.261	500 g	Plastic bottle for solids
26800.294	1 kg	Plastic bottle

Potassium dichromate

Danger
H272 H350 H340 H360FD H330 H301 H372 H312 H314 H335 H334 H317 H410
P201 P210 P281 P284 P273 P301+P330+P331 P302+P352 P304+P340 P309+P310

CAS 7778-50-9
Index 024-002-00-6
EINECS: 231-906-6
UN: 3087
ADR 5.1,II

Restricted to professional users.

$K_2Cr_2O_7$
M.W. 294.18 g/mol
Density: 2.67 g/cm³ (20 °C)
Boiling Pt: 500 °C (1013 hPa)
Melting Pt: 398 °C
Storage Temperature: Ambient temperature

Potassium dichromate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance) .. Min. 99.9 %
Loss on drying (130°C) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 50 ppm
Cu (Copper) ..... Max. 10 ppm
Na (Sodium) ..... Max. 0.02 %
Conforms to BDH 10202 ..... Passes test
Solution in water ..... Passes test
Cl (Chloride) ..... Max. 0.02 %
Ca (Calcium) ..... Max. 20 ppm
Fe (Iron) ..... Max. 10 ppm
Pb (Lead) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
26784.231	250 g	Plastic bottle for solids
26784.297	1 kg	Plastic bottle for solids

Potassium dichromate GPR RECTAPUR®

Assay ..... Min. 99.0 %
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 0.05 %
Fe (Iron) ..... Max. 20 ppm
Pb (Lead) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
26781.297	1 kg	Plastic bottle for solids

Potassium dichromate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
26776.290	1 kg	Plastic bottle for solids
26776.368	5 kg	Bucket (Plastic)

Potassium dichromate concentrated aqueous solution

Danger
H350 H340 H360FD H331 H373 H335 H334 H317
H412
P281 P285 P273 P302+P352 P304+P340 P309+P310

CAS 7778-50-9
EINECS: 231-906-6
UN: 3287
ADR 6.1,III

Restricted to professional users.

$K_2Cr_2O_7$
Storage Temperature: Ambient temperature

Potassium dichromate 1/60 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.01658 to 0.01675 mol/l

Cat. No.	Pk	Pack type
32061.600	60 ml	Plastic ampoule

Potassium dichromate (0.1 - < 5%) in aqueous solution

Danger
H350 H340 H360FD H331 H373 H334 H317 H412
P281 P285 P273 P302+P352 P304+P340 P309+P310

CAS 7778-50-9
EINECS: 231-906-6
UN: 3287
ADR 6.1,III

Restricted to professional users.

$K_2Cr_2O_7$
Storage Temperature: Ambient temperature

Potassium dichromate 0.5% in aqueous solution Reag. Ph. Eur. 1069502

Cat. No.	Pk	Pack type
87900.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium dichromate (≥ 0.17 mol/l; ≥ 1N) in aqueous solution

Danger
H350 H340 H360FD H331 H373 H335 H334 H317
H412
P281 P285 P273 P302+P352 P304+P340 P309+P310

CAS 7778-50-9
EINECS: 231-906-6
UN: 3287
ADR 6.1,III

Restricted to professional users.

$K_2Cr_2O_7$
Storage Temperature: Ambient temperature

Potassium dichromate 0.36 mol/l (106 g/l) in aqueous solution Reag. Ph. Eur. 1069501

Cat. No.	Pk	Pack type
87716.180	100 ml	Plastic bottle
87716.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium dichromate (0.0034 - 0.17 mol/l; 0.02 - 1 N) in aqueous solution

Danger
H350 H340 H360FD H331 H373 H334 H317 H412
P281 P285 P273 P302+P352 P304+P340 P309+P310

CAS 7778-50-9
EINECS: 231-906-6
UN: 3287
ADR 6.1,III

Restricted to professional users.

$K_2Cr_2O_7$
M.W. 294.18 g/mol
Storage Temperature: Ambient temperature

Potassium dichromate 1/6 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.1657 to 0.1663 mol/l
Appearance ..... Clear orange liquid

Cat. No.	Pk	Pack type
31396.291	1 l	Glass bottle

Potassium dichromate 0.04 mol/l (0.24 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

Titer (20°C; real value 0.2 % accuracy) ..... 0.03992 to 0.04008 mol/l

Cat. No.	Pk	Pack type
30892.298	1 l	Glass bottle

Potassium dichromate 1/60 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.01663 to 0.01670 mol/l

Cat. No.	Pk	Pack type
191005X	2,5 l	Glass bottle

Potassium dichromate 0.04 mol/l (0,24 N) with mercury (II) sulphate 80 g/l in sulphuric acid solution

Danger
H350 H340 H360FD H310 H301+H331 H373 H314
H334 H411
P201 P281 P284 P273 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 7778-50-9
EINECS: 231-906-6
UN: 3289
ADR 6.1,II

Restricted to professional users.

$K_2Cr_2O_7$
Density: ~ 1.19 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Potassium dichromate 0.04 mol/l (0,24 N) with mercury (II) sulphate 80 g/l in sulphuric acid solution AVS TITRINORM® volumetric solution, for COD determination in water

(According to NFT 90-101 standard)

Titer (20°C; real value 0.2 % accuracy) ..... 0.03992 to 0.04008 mol/l

Cat. No.	Pk	Pack type
30891.295	1 l	Glass bottle
30891.420	2,5 l	Glass bottle SAFEBREAK

Potassium dihydrogen phosphate

Potassium phosphate monobasic , Potassium dihydrogen orthophosphate

CAS 7778-77-0
EINECS: 231-913-4

KH_2PO_4
M.W. 136.09 g/mol
Density: 2.3 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)
Melting Pt: 253 °C
Storage Temperature: Ambient temperature

Potassium dihydrogen phosphate HiPerSolv CHROMANORM® for HPLC

Assay ..... Min. 99.5 %
pH (20°C; 5 %) ..... 4.3 to 4.5
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 5 ppm
SO_4 (Sulphate) ..... Max. 30 ppm
Fe (Iron) ..... Max. 10 ppm
Transmittance (254 nm) (0.1 mol/l) ..... Min. 90 %

Cat. No.	Pk	Pack type
153184U	500 g	Plastic bottle for solids

Potassium dihydrogen phosphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance) 99.5 to 100.5 % ..... Passes test Ph. Eur.
Identification A ..... Passes test Ph. Eur.
Identification B ..... Passes test Ph. Eur.
Identification C ..... Passes test Ph. Eur.
Reducing substances ..... Passes test Ph. Eur.
Solubility in water ..... Passes test
Solution S ..... Passes test Ph. Eur.
pH (20°C; 5 %) ..... 4.2 to 4.5
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (105°C) ..... Max. 2 %
Total N (Nitrogen) ..... Max. 10 ppm
Water ..... Max. 0.2 %
Cl (Chloride) ..... Max. 5 ppm
SO_4 (Sulphate) ..... Max. 30 ppm
As (Arsenic) ..... Max. 0.5 ppm
Ca (Calcium) ..... Max. 100 ppm
Cu (Copper) ..... Max. 3 ppm
Fe (Iron) ..... Max. 10 ppm
Mg (Magnesium) ..... Max. 20 ppm
Na (Sodium) ..... Max. 0.02 %
Pb (Lead) ..... Max. 10 ppm
Conforms to BDH 10203 ..... Passes test
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
26936.236	250 g	Plastic bottle for solids
26936.260	500 g	Plastic bottle for solids
26936.293	1 kg	Plastic bottle for solids
26936.320	2,5 kg	Plastic bottle for solids
26936.460	25 kg	Cardboard carton

Potassium dihydrogen phosphate, crystallized Ph. Eur.

Assay (calculated on dried substance) ..... 98.0 to 100.5 %
Appearance ..... Colourless crystals
Identification A ..... Passes test
Identification B ..... Passes test
Identification C ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
pH (5 %) ..... 4.2 to 4.5
Reducing substances ..... Passes test
Cl (Chloride) ..... Max. 200 ppm
SO_4 (Sulphate) ..... Max. 300 ppm
As (Arsenic) ..... Max. 2 ppm
Fe (Iron) ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (125-130°C) ..... Max. 2.0 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
26922.295	1 kg	Plastic bottle for solids
26922.364	5 kg	Plastic bottle for solids
26922.466	25 kg	Bucket (Plastic)

Potassium dihydrogen phosphate, crystallized GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
26923.298	1 kg	Plastic bottle for solids
26923.367	5 kg	Plastic bottle for solids

Potassium dihydrogen phosphate, powder GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
26925.295	1 kg	Plastic bottle for solids
26925.364	5 kg	Plastic bottle for solids
26925.460	25 kg	Bucket (Plastic)

Potassium dihydrogen phosphate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
436053H	250 g	Glass bottle for solids
436055J	1 kg	Glass bottle for solids

Potassium dihydrogen phosphate in aqueous solution

CAS 7778-77-0
EINECS: 231-913-4

KH_2PO_4
Storage Temperature: Ambient temperature

Potassium dihydrogen phosphate 0.2 mol/l in aqueous solution Reag. Ph. Eur. 1069601

Cat. No.	Pk	Pack type
87901.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

di-Potassium disulphite

Dipotassium disulphite , Potassium metabisulphite , Potassium pyrosulphite , Potassium disulphite

Danger
H335 H318
EUH031
P280 P304+P340 P305+P351+P338 P309+P310

CAS 16731-55-8
EINECS: 240-795-3

K_2SO_5
M.W. 222.33 g/mol
Density: 1.2 g/cm³ (20 °C)
Melting Pt: 190 °C

di-Potassium disulphite AnalaR NORMAPUR® analytical reagent

Assay	Min. 96.0 %	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 50 ppm
As (Arsenic)	Max. 1 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm	Zn (Zinc)	Max. 10 ppm

Cat. No.	Pk	Pack type
26805.291	1 kg	Plastic bottle for solids

Potassium disulphite

See di-Potassium disulphite p.376

Potassium ethanedioate monohydrate

See di-Potassium oxalate monohydrate p.385

Potassium ferricyanide

See Potassium hexacyanoferrate (III) p.378

Potassium ferriperiodate solution

UN: 1719
ADR 8,II

Potassium ferriperiodate solution Reag. Ph. Eur. 1070801

Cat. No.	Pk	Pack type
87917.130	50 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium ferrocyanide trihydrate

See Potassium hexacyanoferrate (II) trihydrate p.377

Potassium fluoride

Danger
H301+H311+H331
P280 P302+P352 P304+P340 P309+P310

CAS 7789-23-3
Index 009-005-00-2
EINECS: 232-151-5
UN: 1812
ADR 6.1,III

KF
M.W. 58.1 g/mol
Density: 2.48 g/cm³ (20 °C)
Boiling Pt: 1505 °C (1013 hPa)
Melting Pt: 860 °C
Storage Temperature: Ambient temperature

Potassium fluoride AnalaR NORMAPUR® analytical reagent

Assay	Min. 99 %	Acidity	Max. 0.025 meq/g
Alkalinity	Max. 0.01 meq/g	Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 50 ppm	SiF_6 (Hexafluorosilicate)	Max. 0.05 %
SO_4 (Sulphate)	Max. 0.05 %	Cu (Copper)	Max. 25 ppm
Fe (Iron)	Max. 10 ppm	Pb (Lead)	Max. 10 ppm
Zn (Zinc)	Max. 25 ppm		

Cat. No.	Pk	Pack type
26820.236	250 g	Plastic bottle for solids
26820.293	1 kg	Plastic bottle for solids

Potassium fluoride, anhydrous GPR RECTAPUR®

Assay (precipitative titration)	Min. 98 %
Chloride (Cl)	Max. 0.01 %
Hexafluorosilicate (SiF_6)	Max. 0.3 %
Sulphate (SO_4)	Max. 0.1 %
Heavy metals (as Pb)	Max. 0.003 %
Fe (Iron)	Max. 0.01 %

Cat. No.	Pk	Pack type
296134C	500 g	Plastic bottle

Potassium fluoride GPR RECTAPUR®

Assay	Min. 98.5 %
Acidity	Max. 0.05 meq/g
Alkalinity	Max. 0.02 meq/g
Heavy metals (as Pb)	Max. 30 ppm
Insolubility in water	Max. 0.1 %
Cl (Chloride)	Max. 0.05 %
SiF_6 (Hexafluorosilicate)	Max. 0.3 %
Fe (Iron)	Max. 30 ppm

Cat. No.	Pk	Pack type
26821.230	250 g	Plastic bottle for solids
26821.296	1 kg	Plastic bottle for solids
26821.365	5 kg	Bucket (Plastic)

Potassium heptaiodobismuthate 8% with potassium iodide in aqueous L(+)-tartaric acid solution

CAS 41944-01-8
EINECS: 255-595-1

K_4BiI_7

Potassium heptaiodobismuthate 8% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070602

Cat. No.	Pk	Pack type
87914.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium heptaiodobismuthate 6.1% with potassium iodide in dil. acetic acid

CAS 41944-01-8
EINECS: 255-595-1
UN: 2790
ADR 8,III

K_4BiI_7

Potassium heptaiodobismuthate 6.1% with potassium iodide in dil. acetic acid Reag. Ph. Eur. 1070600

Cat. No.	Pk	Pack type
87912.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium heptaiodobismuthate 6.1% with potassium iodide in aqueous L(+)-tartaric acid solution

CAS 41944-01-8
EINECS: 255-595-1

K_4BiI_7

Potassium heptaiodobismuthate 6.1% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070601

Cat. No.	Pk	Pack type
87913.270	600 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium heptaiodobismuthate 0.5% with potassium iodide in aqueous L(+)-tartaric acid solution

CAS 41944-01-8
EINECS: 255-595-1

K_4BiI_7

Potassium heptaiodobismuthate 0.5% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070603

Cat. No.	Pk	Pack type
87915.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium heptaiodobismuthate 0.5% with barium chloride and potassium iodide in dil. acetic acid

CAS 41944-01-8
EINECS: 255-595-1

K_4BiI_7

Potassium heptaiodobismuthate 0.5% with barium chloride and potassium iodide in dil. acetic acid Reag. Ph. Eur. 1070605

Cat. No.	Pk	Pack type
87916.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium hexachloroplatinate (IV)

See di-Potassium hexachloroplatinate p.377

di-Potassium hexachloroplatinate

Potassium hexachloroplatinate (IV)

Danger
H301 H318 H334 H317
P280 P285 P302+P352 P304+P341 P305+P351+P338
P309+P310

CAS 16921-30-5
Index 078-007-00-3
EINECS: 240-979-3
UN: 3290
ADR 6.1,II

K_2PtCl_6
M.W. 485.99 g/mol
Density: 3.344 g/cm³ (20 °C)
Melting Pt: 250 °C
Storage Temperature: Ambient temperature

di-Potassium hexachloroplatinate

Assay (calculated as Pt) ..... Min. 39.5 %

Cat. No.	Pk	Pack type
295962D	1 g	Glass bottle

di-Potassium hexachloroplatinate TECHNICAL

Assay (calculated as Pt) ..... Min. 39.5 %

Cat. No.	Pk	Pack type
26749.081	1 g	Glass bottle

Potassium hexacyanoferrate (II) trihydrate

Potassium ferrocyanide trihydrate , Tetrapotassium hexacyanoferrate trihydrate

H411
P273

CAS 14459-95-1
EINECS: 237-722-2

$K_4Fe(CN)_6 \cdot 3H_2O$
M.W. 422.39 g/mol
Density: 1.889 g/cm³ (20 °C)
Melting Pt: 70 °C
Storage Temperature: Ambient temperature

Potassium hexacyanoferrate (II) trihydrate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.0 %
Insolubility in water ..... Max. 0.03 %
SO_4 (Sulphate) ..... Max. 50 ppm
Ba (Barium) ..... Passes test
Cl (Chloride) ..... Max. 0.02 %
Na (Sodium) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
26816.232	250 g	Plastic bottle for solids
26816.298	1 kg	Plastic bottle for solids

Potassium hexacyanoferrate (II) trihydrate GPR RECTAPUR®

Assay ..... Min. 98 %
Cl (Chloride) ..... Max. 0.02 %
SO_4 (Sulphate) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
26815.262	500 g	Plastic bottle for solids

Potassium hexacyanoferrate (II) trihydrate TECHNICAL

Assay..... Min. 96 %

Cat. No.	Pk	Pack type
26812.295	1 kg	Plastic bottle for solids
26812.460	25 kg	Bucket (Plastic)

Potassium hexacyanoferrate (II) trihydrate in aqueous solution

H411
P273

CAS 14459-95-1
EINECS: 237-722-2

$K_4Fe(CN)_6 \cdot 3H_2O$
Storage Temperature: Ambient temperature

Potassium hexacyanoferrate (II) trihydrate 5.3% (w/v) in aqueous solution Reag. Ph. Eur. 1069801

Cat. No.	Pk	Pack type
87902.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium hexacyanoferrate (III)

Potassium ferricyanide , Tripotassium hexacyanoferrate

CAS 13746-66-2
EINECS: 237-323-3

$K_3Fe(CN)_6$
M.W. 329.25 g/mol
Density: 1.85 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Potassium hexacyanoferrate (III) AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Hexacyanoferrate (II) (as $Fe(CN)_6$)	Max. 0.05 %
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 50 ppm	Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
26810.232	250 g	Plastic bottle for solids
26810.298	1 kg	Plastic bottle for solids

Potassium hexacyanoferrate (III) GPR RECTAPUR®

Assay..... Min. 98 %
Cl (Chloride)..... Max. 0.02 %
SO_4 (Sulphate)..... Max. 0.02 %

Cat. No.	Pk	Pack type
26809.294	1 kg	Plastic bottle for solids

Potassium hexacyanoferrate (III) TECHNICAL

Assay..... Min. 96 %

Cat. No.	Pk	Pack type
26807.297	1 kg	Plastic bottle for solids

Potassium hexahydroxoantimonate 0.05 mol/l in potassium hydroxide solution 1.6%

Warning
H319 H315 H411
P280 P273 P302+P352 P305+P351+P338

CAS 12208-13-8
EINECS: 235-387-7
UN: 3266
ADR 8,III

$KSb(OH)_6$

Potassium hexahydroxoantimonate 0.05 mol/l in potassium hydroxide solution 1.6% Reag. Ph. Eur. 1071301

Cat. No.	Pk	Pack type
87725.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium hydrogen carbonate

Potassium bicarbonate

CAS 298-14-6
EINECS: 206-059-0

$KHCO_3$
M.W. 100.12 g/mol
Density: 2.17 g/cm³ (20 °C)
Melting Pt: 292 °C
Storage Temperature: Ambient temperature

Potassium hydrogen carbonate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Substances reducing iodine (0.1 N)	Passes test
pH (20°C; 5 %)	8.2 to 8.8	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Substances precipitated by NH_4OH	Max. 100 ppm
Cl (Chloride)	Max. 10 ppm	NH_4 (Ammonium)	Max. 10 ppm
NO_3 (Nitrate)	Max. 10 ppm	PO_4 (Phosphate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm	As (Arsenic)	Max. 2 ppm
Ca + Mg (as Ca)	Max. 100 ppm	Fe (Iron)	Max. 2 ppm
Na (Sodium)	Max. 0.025 %		

Cat. No.	Pk	Pack type
26733.292	1 kg	Plastic bottle for solids

Potassium hydrogen carbonate GPR RECTAPUR®

Assay..... Min. 99 %
Heavy metals (as Pb)..... Max. 20 ppm
Cl (Chloride)..... Max. 50 ppm
SO_4 (Sulphate)..... Max. 100 ppm
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
26730.361	5 kg	Plastic bottle for solids

di-Potassium hydrogen orthophosphate

See di-Potassium hydrogen phosphate..... p.379

di-Potassium hydrogen orthophosphate trihydrate

See di-Potassium hydrogen phosphate trihydrate p.379

di-Potassium hydrogen phosphate

Potassium phosphate dibasic , di-Potassium hydrogen orthophosphate

CAS 7758-11-4
EINECS: 231-834-5

K_2HPO_4
M.W. 174.18 g/mol
Density: 2.3 g/cm³ (20 °C)
Melting Pt: 340 °C
Storage Temperature: Ambient temperature

di-Potassium hydrogen phosphate analytical reagent

Assay	Min. 99.0 %
pH (20°C; 5 %)	8.7 to 9.3
Heavy metals (as Pb)	Max. 5 ppm
Loss on drying (105°C)	Max. 1.0 %
Total N (Nitrogen)	Max. 10 ppm
Cl (Chloride)	Max. 30 ppm
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
26931.263	500 g	Plastic bottle for solids
26931.365	5 kg	Bucket (Plastic)

di-Potassium hydrogen phosphate Ph. Eur.

Assay (calculated on dried substance)	98.0 to 101.0 %
Appearance	White powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Reducing substances	Passes test
Monopotassium phosphate	Max. 2.5 %
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 0.1 %
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 10 ppm
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (125-130°C)	Max. 2.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26932.290	1 kg	Plastic bottle for solids
26932.368	5 kg	Bucket (Plastic)
26932.461	25 kg	Bucket (Plastic)

di-Potassium hydrogen phosphate GPR RECTAPUR®

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 50 ppm
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
26930.260	500 g	Plastic bottle for solids
26930.293	1 kg	Plastic bottle for solids
26930.362	5 kg	Bucket (Plastic)

di-Potassium hydrogen phosphate Gen-Apex® Molecular biology grade

Assay	Min. 98 %
Colouration (0.3 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 10 ppm
Transmittance (230 nm) (0.3 mol/l)	Min. 70 %
Transmittance (260 nm) (0.3 mol/l)	Min. 75 %
Transmittance (280 nm) (0.3 mol/l)	Min. 80 %
Transmittance (320 nm) (0.3 mol/l)	Min. 95 %

Cat. No.	Pk	Pack type
33612.268	500 g	Plastic bottle for solids

di-Potassium hydrogen phosphate TECHNICAL

Assay	Min. 96 %

Cat. No.	Pk	Pack type
26927.361	5 kg	Bucket (Plastic)
26927.460	25 kg	Bucket (Plastic)

di-Potassium hydrogen phosphate trihydrate

Potassium phosphate dibasic trihydrate , di-Potassium hydrogen orthophosphate trihydrate

CAS 16788-57-1
EINECS: 231-834-5

$K_2HPO_4 \cdot 3H_2O$
M.W. 228.22 g/mol
Density: 2.504 g/cm³ (20 °C)
Boiling Pt: Min. 340 °C (1013 hPa)
Storage Temperature: Ambient temperature

di-Potassium hydrogen phosphate trihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min 99.0 %	pH (c = 5%, H_2O)	9.2 to 9.4
Solution in water	Passes test	Heavy metals (as Pb)	Max 0.001 %
Sulphates (SO_4)	Max 0.005 %	Chloride (Cl)	Max 0.001 %
As (Arsenic)	Max 0.00005 %	Cu (Copper)	Max 0.0003 %
Fe (Iron)	Max 0.0005 %	N (Nitrogen)	Max 0.001 %
Na (Sodium)	Max 0.1 %	Pb (Lead)	Max 0.001 %

Cat. No.	Pk	Pack type
103494G	500 g	Plastic bottle
103495H	2,5 kg	Plastic bottle

di-Potassium hydrogen phosphate trihydrate Electran® Molecular biology grade

Assay	Min. 99.5 %
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Absorbance (260 nm) (0.1 mol/l)	Max. 0.01
Absorbance (280 nm) (0.1 mol/l)	Max. 0.01
Heavy metals (as Pb)	Max. 0.001 %
pH (20 °C; 5 %)	9 to 9.4
Cl (Chloride)	Max. 0.001 %
SO_4 (Sulphate)	Max. 0.005 %
As (Arsenic)	Max. 0.00005 %
Fe (Iron)	Max. 0.0005 %
Na (Sodium)	Max. 0.1 %

Cat. No.	Pk	Pack type
436065L	1 kg	Glass bottle for solids

Potassium hydrogen phthalate

Phthalic acid potassium salt

CAS 877-24-7
EINECS: 212-889-4

$HOOCC_6H_4COOK$
M.W. 204.22 g/mol
Density: 1.6362 g/cm³ (20 °C)
Melting Pt: 295 to 300 °C
Storage Temperature: Ambient temperature

Potassium hydrogen phthalate AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance)	Min. 99.5 %	IR Spectrum	Passes test
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Loss on drying (105°C)	Max. 0.2 %	Sulphur compounds (as SO_4)	Max. 50 ppm
Cl (Chloride)	Max. 20 ppm	Cu (Copper)	Max. 2 ppm
Fe (Iron)	Max. 5 ppm	Na (Sodium)	Max. 100 ppm
Pb (Lead)	Max. 5 ppm	Conforms to BDH 10207	Passes test

Cat. No.	Pk	Pack type
26948.146	30 g	Plastic bottle for solids
26948.237	250 g	Plastic bottle for solids
26948.260	500 g	Plastic bottle for solids
26948.294	1 kg	Plastic bottle for solids

Potassium hydrogen phthalate in aqueous solution

CAS 877-24-7
EINECS: 212-889-4

$HOOCC_6H_4COOK$

Potassium hydrogen phthalate 0.2 mol/l in aqueous solution Reag. Ph. Eur. 1070001

Cat. No.	Pk	Pack type
87903.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium hydrogen sulphate

Potassium bisulphate

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7646-93-7
Index 016-056-00-4
EINECS: 231-594-1
UN: 2509
ADR 8,II

$KHSO_4$
M.W. 136.17 g/mol
Density: 2.32 g/cm³ (20 °C)
Melting Pt: 214 °C

Potassium hydrogen sulphate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Heavy metals (as Pb)	Max. 5 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 5 ppm
PO_4 (Phosphate)	Max. 10 ppm	Al (Aluminium)	Max. 20 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
Na (Sodium)	Max. 50 ppm		

Cat. No.	Pk	Pack type
27011.237	250 g	Plastic bottle for solids
27011.294	1 kg	Plastic bottle for solids

Potassium hydrogen sulphate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 20 ppm
PO_4 (Phosphate)	Max. 20 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
27012.297	1 kg	Plastic bottle for solids

Potassium hydrogen sulphate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
27013.360	5 kg	Bucket (Plastic)

L(+)-Potassium hydrogen tartrate

(R,R)-(+)-Tartaric acid potassium salt , L(+)-Tartaric acid potassium salt

CAS 868-14-4
EINECS: 212-769-1

$KOOC(CHOH)_2COOH$
M.W. 188.18 g/mol
Density: 1.943 g/cm³ (20 °C)
Melting Pt: 250 °C

L(+)-Potassium hydrogen tartrate AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	99.5 to 100.5 %	Insolubility in water	Max. 50 ppm
Loss on drying (105°C)	Max. 0.5 %	Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %	As (Arsenic)	Max. 1 ppm
Ba (Barium)	Max. 0.1 %	Ca (Calcium)	Max. 0.02 %
Cu (Copper)	Max. 25 ppm	Fe (Iron)	Max. 20 ppm
Zn (Zinc)	Max. 25 ppm		

Cat. No.	Pk	Pack type
27058.238	250 g	Plastic bottle for solids

L(+)-Potassium hydrogen tartrate Ph. Eur.

Assay (calculated on dried substance)	99.5 to 100.5 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Identification D	Passes test
Spec. opt. rotation (dried substance)	8.0 to 9.2 °
Oxalic acid	Max. 500 ppm
Cl (Chloride)	Max. 500 ppm
SO_4 (Sulphate)	Max. 500 ppm
Ba (Barium)	Passes test
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 0.5 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27057.361	5 kg	Bucket (Plastic)

(+)-Potassium hydrogen L-tartrate

See L(+)-Potassium hydrogen tartrate p.380

(R,R)-(+)-Potassium hydrogen tartrate

See L(+)-Potassium hydrogen tartrate p.380

Potassium hydroxide

Caustic potash

Danger
H302 H314 H290
P280 P301+P330+P331 P304+P340 P309+P310

CAS 1310-58-3
Index 019-002-00-8
EINECS: 215-181-3
UN: 1813
ADR 8,II

KOH
M.W. 56.11 g/mol
Density: 2.04 g/cm³ (20 °C)
Boiling Pt: 1320 °C (1013 hPa)
Melting Pt: 360 °C
Storage Temperature: Ambient temperature

Potassium hydroxide, pellets AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (calculated as KOH)	85.0 to 100.5 %
Appearance of solution S	Passes test Ph. Eur.
Solution S1	Passes test Ph. Eur.
pH (20°C; 0.01 %)	Min. 10.5
Total N (Nitrogen)	Max. 5 ppm
CO_3 (as K_2CO_3)	Max. 1.0 %
SiO_4 (as SiO_2)	Max. 50 ppm
Al (Aluminium)	Max. 10 ppm
Cu (Copper)	Max. 2 ppm
Na (Sodium)	Max. 0.5 %
Pb (Lead)	Max. 5 ppm
Conforms to Reag. Ph.Eur.	Passes test
Solution in water	Passes test
Identification B	Passes test Ph. Eur.
Solution S2	Passes test Ph. Eur.
Heavy metals (as Pb)	Max. 5 ppm
Cl (Chloride)	Max. 5 ppm
PO_4 (Phosphate)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm
Ca (Calcium)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm
Ni (Nickel)	Max. 5 ppm
Conforms to BDH 10210	Passes test

Cat. No.	Pk	Pack type
26668.263	500 g	Plastic bottle for solids
26668.296	1 kg	Plastic bottle for solids
26668.365	5 kg	Plastic bottle for solids
26668.460	25 kg	Bucket (Plastic)

Potassium hydroxide, pellets Ph. Eur.

Assay (calculated as KOH)	85.0 to 100.5 %
Appearance	White pastilles
Identification A	Passes test
Identification B	Passes test
Solution S1	Passes test
Solution S2	Passes test
Appearance of solution	Passes test
CO_3 (as K_2CO_3)	Max. 2.0 %
Cl (Chloride)	Max. 50 ppm
PO_4 (Phosphate)	Max. 20 ppm
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm
Na (Sodium)	Max. 1.0 %
Heavy metals (as Pb)	Max. 10 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26670.294	1 kg	Plastic bottle for solids
26670.363	5 kg	Plastic bottle for solids
26670.465	25 kg	Bucket (Plastic)

Potassium hydroxide, pellets GPR RECTAPUR®

Assay	Min. 85.0 %
Total N (Nitrogen)	Max. 5 ppm
Cl (Chloride)	Max. 50 ppm
CO_3 (as K_2CO_3)	Max. 2.0 %
PO_4 (Phosphate)	Max. 20 ppm
SiO_4 (as SiO_2)	Max. 100 ppm
SO_4 (Sulphate)	Max. 50 ppm
Al (Aluminium)	Max. 10 ppm
Ca (Calcium)	Max. 20 ppm
Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
26669.266	500 g	Plastic bottle for solids
26669.290	1 kg	Plastic bottle for solids
26669.368	5 kg	Plastic bottle for solids
26669.460	25 kg	Bucket (Plastic)

Potassium hydroxide (5 - 50%) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 1814
ADR 8,II

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 50% in aqueous solution Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151878.	2,5 l	Plastic bottle
54197681.	300 kg	Plastic drum
56999579.	300 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Potassium hydroxide 38% in aqueous solution AnalaR NORMAPUR® analytical reagent

Assay	38.0 to 40.3 %
Heavy metals (as Pb)	Max. 2 ppm
Silica	Max. 10 ppm
Cl (Chloride)	Max. 2 ppm
SO_4 (Sulphate)	Max. 2 ppm
Ba (Barium)	Max. 1 ppm
Cd (Cadmium)	Max. 0.1 ppm
Cr (Chromium)	Max. 2 ppm
Fe (Iron)	Max. 1 ppm
Mg (Magnesium)	Max. 1 ppm
Na (Sodium)	Max. 0.25 %
Pb (Lead)	Max. 0.5 ppm
Density (20/4)	1.374 to 1.396
Potassium carbonate	Max. 1.0 %
Total N (Nitrogen)	Max. 1 ppm
PO_4 (Phosphate)	Max. 1 ppm
Al (Aluminium)	Max. 1 ppm
Ca (Calcium)	Max. 5 ppm
Co (Cobalt)	Max. 0.1 ppm
Cu (Copper)	Max. 0.1 ppm
Hg (Mercury)	Max. 0.01 ppm
Mn (Manganese)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.2 ppm
Zn (Zinc)	Max. 0.5 ppm

Cat. No.	Pk	Pack type
26632.293	1 l	Plastic bottle

Potassium hydroxide 34% in aqueous solution AnalaR NORMAPUR® analytical reagent

Assay	34.0 to 36.0 %
Density (20/4)	1.330 to 1.352
Potassium carbonate	Max. 1.0 %
Cl (Chloride)	Max. 30 ppm
NO_3 (Nitrate)	Max. 10 ppm
SO_4 (Sulphate)	Max. 20 ppm
Fe (Iron)	Max. 5 ppm
Ba (Barium)	Passes test
Heavy metals (as Pb)	Max. 5 ppm
Substances precipitated by NH_4OH	Max. 100 ppm
NH_4 (Ammonium)	Max. 10 ppm
PO_4 (Phosphate)	Max. 10 ppm
Ca + Mg (as Ca)	Max. 100 ppm

Cat. No.	Pk	Pack type
26630.296	1 l	Plastic bottle

Potassium hydroxide 30% in aqueous solution Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152355.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Potassium hydroxide in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 1814
ADR 8,II

KOH
Storage Temperature: Ambient temperature

NEW

Potassium hydroxide 0.5 mol in aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C; real value 0.2 % accuracy) ..... 0.4998 to 0.5002 mol/l

Cat. No.	Pk	Pack type
84592.600	210 ml	Plastic ampoule

Potassium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
31300.291	1 l	Plastic bottle

Potassium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31950.296	1 l	Plastic bottle

Potassium hydroxide (0.1 - < 0.35 mol/l; < 0.1 - < 0.35 N) in aqueous solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 1310-58-3
EINECS: 215-181-3
UN: 1814
ADR 8,II

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31780.298	1 l	Plastic bottle

Potassium hydroxide (0.5 - < 2%) in ethanol

Danger
H225 H319 H315
P210 P243 P280 P302+P352 P305+P351+P338

CAS 1310-58-3
EINECS: 215-181-3
UN: 2924
ADR 3,II

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 6.6 g/l in ethanol 95% Reag. Ph. Eur. 1070304

Cat. No.	Pk	Pack type
87907.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium hydroxide (1 - 12 mol/l; < 1 - 12 N) in ethanol

Danger
H225 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 2924
ADR 3,II
Flash Pt: 12

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 1 mol/l (1 N) in ethanol AVS TITRINORM® volumetric solution

This product may develop a yellow-brown colour during storage.
Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
31306.267	500 ml	Glass bottle

Potassium hydroxide (0.35 - < 1 mol/l; < 0.35 - < 1 N) in ethanol

Danger
H225 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 2924
ADR 3,II
Flash Pt: 12

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.5 mol/l (0.5 N) in ethanol AVS TITRINORM® volumetric solution

This product may develop a yellow-brown colour during storage.
Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31308.264	500 ml	Glass bottle
31308.297	1 l	Glass bottle

Potassium hydroxide (0.1 - < 0.35 mol/l; < 0.1 - < 0.35 N) in ethanol

Danger
H225
P210 P243 P280

CAS 1310-58-3
EINECS: 215-181-3
UN: 2924
ADR 3,II
Flash Pt: 12

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.1 mol/l (0.1 N) in ethanol AVS TITRINORM® volumetric solution

This product may develop a yellow-brown colour during storage.

Appearance ..... Clear colourless liquid
Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31303.291	1 l	Glass bottle

Potassium hydroxide (< 0.1 mol/l; < 0.1 N) in ethanol

Danger
H225
P210 P243 P280

CAS 1310-58-3
EINECS: 215-181-3
UN: 2924
ADR 3,II
Flash Pt: 12

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.05 mol/l (0.05 N) in ethanol AVS TITRINORM® volumetric solution

This product may develop a yellow-brown colour during storage.

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
31305.297	1 l	Glass bottle

Potassium hydroxide (1 - 12 mol/l; < 1 - 12 N) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 3286
ADR 3,II
Flash Pt: 7

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 2 mol/l (2 N) in methanol AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 1.996 to 2.004 mol/l

Cat. No.	Pk	Pack type
32199.296	1 l	Glass bottle

Potassium hydroxide (0.35 - < 1 mol/l; < 0.35 - < 1 N) in methanol

Danger
H225 H330 H301+H311 H314 H370
P210 P280 P284 P301+P330+P331 P302+P352
P304+P340 P305+P351+P338 P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 3286
ADR 3,II
Flash Pt: 11

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.5 mol/l (0.5 N) in methanol AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31984.293	1 l	Glass bottle

Potassium hydroxide (0.1 - < 0.35 mol/l; < 0.1 - < 0.35 N) in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 1310-58-3
EINECS: 215-181-3
UN: 1992
ADR 3,II
Flash Pt: 11

KOH
Storage Temperature: Ambient temperature

Potassium hydroxide 0.1 mol/l 0.1 N in methanol AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l
Colouration ..... Max. 100 APHA

Cat. No.	Pk	Pack type
32304.291	1 l	Plastic bottle
32304.427	2,5 l	Glass bottle SAFEBREAK

Potassium iodate

Warning
H272 H319 H335 H315
P210 P280 P305+P351+P338 P309+P310

CAS 7758-05-6
EINECS: 231-831-9
UN: 1479
ADR 5.1,II

KIO_3
M.W. 214 g/mol
Density: 3.98 g/cm³ (20 °C)
Melting Pt: 560 °C
Storage Temperature: Ambient temperature

Potassium iodate AnalaR NORMAPUR® analytical reagent

Assay ..... 99.7 to 100.4 %
Heavy metals (as Pb) ..... Max. 5 ppm
Total N (Nitrogen) ..... Max. 20 ppm
I (Iodide) ..... Max. 20 ppm
Fe (Iron) ..... Max. 10 ppm
pH (20°C; 5 %) ..... 5.0 to 8.0
Loss on drying (130°C) ..... Max. 0.1 %
Cl + ClO_3 + Br + BrO_3 (as Cl) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Na (Sodium) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
26840.235	250 g	Plastic bottle for solids

Potassium iodate GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 20 ppm
Br + Cl + ClO_3 (as Cl) ..... Max. 0.05 %
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
26839.264	500 g	Plastic bottle for solids

Potassium iodate/-iodide, 0.713g/l KIO3 (0.02 N) aqueous solution

CAS 7758-05-6
EINECS: 231-831-9

KIO_3
Storage Temperature: Ambient temperature

Potassium iodate/-iodide, 0.713g/l KIO_3 (0.02 N) aqueous solution volumetric solution

Preserved with mercury (II) chloride 10 ppm

Standard solution for the determination of sulphite in boiler water.
Assay (Potassium iodate) ..... 0.7126 to 0.714 g/l

Cat. No.	Pk	Pack type
160274X	500 ml	Glass bottle
160276Q	2,5 l	Glass bottle

Potassium iodide

CAS 7681-11-0
EINECS: 231-659-4

KI
M.W. 166 g/mol
Density: 3.13 g/cm³ (20 °C)
Boiling Pt: 1330 °C (1013 hPa)
Melting Pt: 686 °C
Storage Temperature: Ambient temperature

Potassium iodide AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Alkalinity ..... Max. 0.002 meq/g
Heavy metals (as Pb) ..... Max. 2 ppm
Loss on drying (150°C) ..... Max. 0.2 %
Total N (Nitrogen) ..... Max. 10 ppm
IO_3 (Iodate) ..... Max. 2 ppm
SO_4 (Sulphate) ..... Max. 10 ppm
Ba (Barium) ..... Max. 20 ppm
Cu (Copper) ..... Max. 2 ppm
Mg (Magnesium) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm
Solution in water ..... Passes test
pH (20°C; 5 %) ..... 5.7 to 9.2
Insolubility in water ..... Max. 50 ppm
Reducing substances (as I) ..... Max. 10 ppm
Cl + Br (as Cl) ..... Max. 100 ppm
PO_4 (Phosphate) ..... Max. 10 ppm
As (Arsenic) ..... Max. 0.1 ppm
Ca (Calcium) ..... Max. 10 ppm
Fe (Iron) ..... Max. 2 ppm
Na (Sodium) ..... Max. 0.03 %

Cat. No.	Pk	Pack type
26846.235	250 g	Plastic bottle for solids
26846.268	500 g	Plastic bottle for solids
26846.292	1 kg	Plastic bottle for solids

Potassium iodide, tablets

Cat. No.	Pk	Pack type
296322E	100 Tab.	Plastic bottle

Potassium iodide Ph. Eur.

Assay (calculated on dried substance) ..... 99.0 to 100.5 %
Appearance ..... White powd. or crystals
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Alkalinity ..... Passes test
IO_3 (Iodate) ..... Passes test
SO_4 (Sulphate) ..... Max. 150 ppm
S_2O_3 (Thiosulphate) ..... Passes test
Heavy metals (as Pb) ..... Max. 10 ppm
Fe (Iron) ..... Max. 20 ppm
Loss on drying (105°C) ..... Max. 1.0 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
26850.230	250 g	Plastic bottle for solids
26850.260	500 g	Plastic bottle for solids
26850.296	1 kg	Plastic bottle for solids
26850.365	5 kg	Plastic bottle for solids

Potassium iodide GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 0.1 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
26843.235	250 g	Plastic bottle for solids
26843.268	500 g	Plastic bottle for solids
26843.292	1 kg	Plastic bottle for solids
26843.361	5 kg	Plastic bottle for solids
26843.460	25 kg	Bucket (Plastic)

Potassium iodide (< 10%) in aqueous solution

CAS 7681-11-0
EINECS: 231-659-4

KI
Storage Temperature: Ambient temperature

Potassium iodide 40 g/l in aqueous solution GPR RECTAPUR®

Assay ..... Min. 40 g/l

Cat. No.	Pk	Pack type
26852.293	1 l	Plastic bottle

Potassium iodide (1 - 3 mol/l; 1 - 3 N) in aqueous solution

CAS 7681-11-0
EINECS: 231-659-4

KI
Storage Temperature: Ambient temperature

Potassium iodide 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1070502

Cat. No.	Pk	Pack type
87909.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium iodide saturated solution in water

CAS 7681-11-0
EINECS: 231-659-4

KI
Storage Temperature: Ambient temperature

Potassium iodide saturated solution in water Reag. Ph. Eur. 1070504

Cat. No.	Pk	Pack type
87911.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Iodinated potassium iodide solution (mixture of 60g/l potassium iodide and 20 g/l iodine in aqueous solution)

KI

Iodinated potassium iodide solution (mixture of 60g/l potassium iodide and 20 g/l iodine in aqueous solution) Reag. Ph. Eur. 1070503

Cat. No.	Pk	Pack type
87910.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium iodide and starch solution

KI

Potassium iodide and starch solution Reag. Ph. Eur. 1070501

Cat. No.	Pk	Pack type
87908.200	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium iodo mercurate (II) reagent, solution B (sodium hydroxide 20% aqueous solution) Reag. Ph. Eur. 1071600 for determination of ammonia and ammonium salts

Cat. No.	Pk	Pack type
87710.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium metabisulphite

See di-Potassium disulphite p.376

Potassium metaperiodate

See Potassium periodate..... p.386

Potassium monohydrogen phosphate

See di-Potassium hydrogen phosphate..... p.379

Potassium monohydrogen phosphate trihydrate

See di-Potassium hydrogen phosphate trihydrate p.379

Potassium nitrate

Warning
H272
P210 P280

CAS 7757-79-1
EINECS: 231-818-8
UN: 1486
ADR 5.1,III

KNO_3
M.W. 101.1 g/mol
Density: 2.109 g/cm³ (20 °C)
Melting Pt: 334 °C
Storage Temperature: Ambient temperature

Potassium nitrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	pH (20°C; 5 %)	5.0 to 7.5
Heavy metals (as Pb)	Max. 5 ppm	Cl (Chloride)	Max. 10 ppm
IO_3 (Iodate)	Max. 5 ppm	NH_4 (Ammonium)	Max. 10 ppm
NO_2 (Nitrite)	Max. 10 ppm	PO_4 (Phosphate)	Max. 5 ppm
SO_4 (Sulphate)	Max. 30 ppm	Ca (Calcium)	Max. 10 ppm
Cu (Copper)	Max. 1 ppm	Fe (Iron)	Max. 3 ppm
Mg (Magnesium)	Max. 15 ppm	Na (Sodium)	Max. 0.02 %
Pb (Lead)	Max. 1 ppm		

Cat. No.	Pk	Pack type
26869.234	250 g	Plastic bottle for solids
26869.260	500 g	Plastic bottle for solids
26869.291	1 kg	Plastic bottle for solids

Potassium nitrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.1 %
SO_4 (Sulphate)	Max. 0.04 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
26863.291	1 kg	Plastic bottle for solids
26863.360	5 kg	Plastic bottle for solids

Potassium nitrate TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
26857.368	5 kg	Bucket (Plastic)

di-Potassium oxalate monohydrate

Potassium ethanedioate monohydrate , Oxalic acid potassium salt monohydrate

Warning
H302+H312
P261 P302+P352 P304+P340 P312

CAS 6487-48-5
Index 607-007-00-3
EINECS: 209-506-8
UN: 2811
ADR 6.1,III

$(COOK)_2 \cdot H_2O$
M.W. 184.23 g/mol
Density: 2.154 g/cm³ (20 °C)
Melting Pt: 356 °C
Storage Temperature: Ambient temperature

di-Potassium oxalate monohydrate AnalaR NORMAPUR® analytical reagent

Assay	99.5 to 101.0 %	pH (20°C; 5 %)	7.0 to 8.5
Heavy metals (as Pb)	Max. 20 ppm	Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 20 ppm	SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm	Na (Sodium)	Max. 0.02 %

Cat. No.	Pk	Pack type
26887.293	1 kg	Plastic bottle for solids

Potassium periodate

Potassium metaperiodate , Potassium tetroxoiodate (VII)

Danger
H272 H319 H335 H315
P210 P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7790-21-8
EINECS: 232-196-0
UN: 1479
ADR 5.1,II

KIO_4
M.W. 230 g/mol
Density: 3.62 g/cm³ (25 °C)
Melting Pt: 576 to 588 °C

Potassium periodate AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance)	Min. 99.5 %	Heavy metals (as Pb)	Max. 5 ppm
Br + Cl + ClO_3 (as Cl)	Max. 0.02 %	NH_4 (Ammonium)	Max. 20 ppm
I (Iodide)	Max. 50 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ba (Barium)	Max. 50 ppm	Mn (Manganese)	Max. 3 ppm

Cat. No.	Pk	Pack type
26900.186	100 g	Plastic bottle for solids

Potassium permanganate

Danger
H272 H302 H410
P210 P280 P273 P301+P312

CAS 7722-64-7
Index 025-002-00-9
EINECS: 231-760-3
UN: 1490
ADR 5.1,II

$KMnO_4$
M.W. 158.03 g/mol
Density: 2.7 g/cm³ (20 °C)
Melting Pt: Min. 240 °C
Storage Temperature: Ambient temperature

Potassium permanganate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Insolubility in water	Max. 0.1 %
Total N (Nitrogen)	Max. 50 ppm	Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 100 ppm	Fe (Iron)	Max. 20 ppm
Pb (Lead)	Max. 20 ppm		

Cat. No.	Pk	Pack type
26910.237	250 g	Plastic bottle for solids
26910.294	1 kg	Plastic bottle for solids

Potassium permanganate, crystallized Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	Violet crystals
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Substances insoluble in water	Max. 1.0 %
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 500 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
26904.293	1 kg	Plastic bottle for solids
26904.464	25 kg	Bucket (Plastic)

Potassium permanganate GPR RECTAPUR®

Assay	Min. 99 %
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.02 %
Pb (Lead)	Max. 50 ppm

Cat. No.	Pk	Pack type
26906.290	1 kg	Plastic bottle for solids
26906.368	5 kg	Plastic bottle for solids

Potassium permanganate concentrated aqueous solution

H411
P273

CAS 7722-64-7
EINECS: 231-760-3
UN: 3082
ADR 9,III

$KMnO_4$
M.W. 158.03 g/mol
Storage Temperature: Ambient temperature

NEW Potassium permanganate 0.002 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C; real value 0.2 % accuracy)	0.001998 to 0.002002 mol/l

Cat. No.	Pk	Pack type
84594.600	30 ml	Glass ampoule

Potassium permanganate (1% - < 10%) in aqueous solution

H411
P273

CAS 7722-64-7
EINECS: 231-760-3
UN: 3082
ADR 9,III

$KMnO_4$
M.W. 158.03 g/mol
Storage Temperature: Ambient temperature

NEW Potassium permanganate 3% in aqueous solution Reag. Ph. Eur. 1070902

Cat. No.	Pk	Pack type
87919.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium permanganate (0.06 - < 0.6 mol/l; 0.3 - < 3 N) in aqueous solution

H411
P273

CAS 7722-64-7
EINECS: 231-760-3
UN: 3082
ADR 9,III

$KMnO_4$
M.W. 158.03 g/mol
Storage Temperature: Ambient temperature

Potassium permanganate 0.2 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.1996 to 0.2004 mol/l

Cat. No.	Pk	Pack type
31451.292	1 l	Glass bottle
31451.326	2,5 l	Glass bottle SAFEBREAK

Potassium permanganate (0.006 - < 0.06 mol/l; 0.03 - < 0.3 N) in aqueous solution

H411
P273

CAS 7722-64-7
EINECS: 231-760-3
UN: 3082
ADR 9,III

$KMnO_4$
M.W. 158.03 g/mol
Storage Temperature: Ambient temperature

Potassium permanganate 0.02 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.01996 to 0.02004 mol/l

Cat. No.	Pk	Pack type
31455.295	1 l	Glass bottle
31455.320	2,5 l	Glass bottle

Potassium permanganate 30 g/l in ortho-phosphoric acid 22%

CAS 7722-64-7
EINECS: 231-760-3
UN: 1805
ADR 8,III

$KMnO_4$
M.W. 158.03 g/mol
Storage Temperature: Ambient temperature

Potassium permanganate 30 g/l in ortho-phosphoric acid 22% Reag. Ph. Eur. 1070901

Cat. No.	Pk	Pack type
87918.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium peroxodisulphate

Dipotassium peroxodisulphate , Peroxydisulphuric acid dipotassium salt , Potassium persulphate , di-Potassium peroxodisulphate

Danger
H272 H302 H319 H335 H315 H334 H317
P210 P280 P285 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 7727-21-1
Index 016-061-00-1
EINECS: 231-781-8
UN: 1492
ADR 5.1,III

$K_2S_2O_8$
M.W. 270.32 g/mol
Density: 2.477 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Potassium peroxodisulphate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 98.0 %	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 5 ppm
NH_4 (Ammonium)	Max. 10 ppm	NO_3 + ClO_3 (as NO_3)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm	Mn (Manganese)	Max. 2 ppm

Cat. No.	Pk	Pack type
26915.187	100 g	Plastic bottle for solids
26915.291	1 kg	Plastic bottle for solids

di-Potassium peroxodisulphate

See Potassium peroxodisulphate p.387

Potassium persulphate

See Potassium peroxodisulphate p.387

Potassium phosphate dibasic

See di-Potassium hydrogen phosphate p.379

Potassium phosphate dibasic trihydrate

See di-Potassium hydrogen phosphate trihydrate p.379

Potassium phosphate monobasic

See Potassium dihydrogen phosphate p.375

Potassium plumbite solution

Danger
H360Df H314 H412
P201 P280 P273 P301+P330+P331 P304+P340
P309+P310
Index 082-001-00-6
UN: 1719
ADR 8,II

Potassium plumbite solution Reag. Ph. Eur. 1071200

Cat. No.	Pk	Pack type
87920.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium pyrosulphite

See di-Potassium disulphite p.376

Potassium rhodanide

See Potassium thiocyanate p.389

L(+)-Potassium sodium tartrate tetrahydrate

(R,R)-(+)-Potassium sodium tartrate tetrahydrate , (R,R)-(+)-Tartaric acid potassium sodium salt tetrahydrate , L(+)-Tartaric acid potassium sodium salt tetrahydrate , (+)-Potassium sodium L-tartrate tetrahydrate , Potassium sodium L(+)-tartrate tetrahydrate

CAS 6381-59-5
EINECS: 206-156-8

$KOOC(CHOH)_2COONa·4H_2O$
M.W. 282.22 g/mol
Density: ~ 1.767 g/cm³ (20 °C)
Melting Pt: 70 to 80 °C
Storage Temperature: Ambient temperature

L(+)-Potassium sodium tartrate tetrahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.0 to 102.0 %	pH (25°C; 5 %)	7.0 to 8.5
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
NH_4 (Ammonium)	Max. 20 ppm	Cl (Chloride)	Max. 5 ppm
PO_4 (Phosphate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 40 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm	Pb (Lead)	Max. 5 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27068.233	250 g	Plastic bottle for solids
27068.290	1 kg	Plastic bottle for solids

L(+)-Potassium sodium tartrate tetrahydrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27066.293	1 kg	Plastic bottle for solids
27066.362	5 kg	Plastic bottle for solids

L(+)-Potassium sodium tartrate tetrahydrate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27062.290	1 kg	Plastic bottle for solids

(+)-Potassium sodium L-tartrate tetrahydrate

See L(+)-Potassium sodium tartrate tetrahydrate p.388

Potassium sodium L(+)-tartrate tetrahydrate

See L(+)-Potassium sodium tartrate tetrahydrate p.388

(R,R)-(+)-Potassium sodium tartrate tetrahydrate

See L(+)-Potassium sodium tartrate tetrahydrate p.388

Potassium sorbate

(2E,4E)-2,4-Hexadienoic acid potassium salt , (E,E)-2,4-Hexadienoic acid potassium salt , 2,4-Hexadienoic acid potassium salt , Sorbic acid potassium salt , trans,trans-2,4-Hexadienoic acid potassium salt , Potassium (E,E)-hexa-2,4-dienoate , Potassium (2E,4E)-hexa-2,4-dienoate , Potassium trans,trans-hexa-2,4-dienoate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311

CAS 24634-61-5
EINECS: 246-376-1

$CH_3CH=CHCH=CHCOOK$
M.W. 150.22 g/mol
Density: 1.36 g/cm³ (20 °C)
Melting Pt: 270 °C
Storage Temperature: Ambient temperature

Potassium sorbate, granules Ph. Eur.

Assay (calculated on dried substance)	99.0 to 101.0 %
Appearance	Fine granules
Identification B	Passes test
Identification D	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Aldehydes (calculated as C_2H_4O)	Max. 0.15 %
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 1.0 %
Statement of original manufacturer	(*)
Acetone (*)	Max. 200 ppm
Other residual solvents (*)	Unlikely by manuf.process

Cat. No.	Pk	Pack type
26976.291	1 kg	Plastic bottle for solids
26976.462	25 kg	Bucket (Plastic)

Potassium sulphate

CAS 7778-80-5
EINECS: 231-915-5

K_2SO_4
M.W. 174.26 g/mol
Density: 2.66 g/cm³ (20 °C)
Boiling Pt: 1698 °C (1013 hPa)
Melting Pt: 1069 °C
Storage Temperature: Ambient temperature

Potassium sulphate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (25°C; 5 %)	5.5 to 7.5
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 100 ppm
Total N (Nitrogen)	Max. 5 ppm	Cl (Chloride)	Max. 5 ppm
As (Arsenic)	Max. 2 ppm	Ca (Calcium)	Max. 50 ppm
Fe (Iron)	Max. 5 ppm	Mg (Magnesium)	Max. 20 ppm
Na (Sodium)	Max. 0.02 %	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
26997.293	1 kg	Plastic bottle for solids

Potassium sulphate GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 50 ppm
NH_4 (Ammonium) ..... Max. 20 ppm
NO_3 (Nitrate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
26994.293	1 kg	Plastic bottle for solids
26994.362	5 kg	Plastic bottle for solids
26994.460	25 kg	Plastic container

di-Potassium L(+)-tartrate hemihydrate

(+)-Dipotassium L-tartrate hemihydrate , (+)-Dipotassium-L-tartrat hemihydrate , (R,R)-(+)-Dipotassium tartrate hemihydrate , (R,R)-(+)-Potassium tartrate dibasic hemihydrate , (R,R)-(+)-Tartaric acid dipotassium salt hemihydrate , L(+)-Potassium tartrate dibasic hemihydrate , L(+)-Tartaric acid dipotassium salt hemihydrate

CAS 6100-19-2
EINECS: 205-697-7

$KOOC(CHOH)_2COOK \cdot 0,5H_2O$
M.W. 235.28 g/mol
Density: 1.943 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

di-Potassium L(+)-tartrate hemihydrate GPR RECTAPUR®

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
27048.291	1 kg	Plastic bottle for solids

L(+)-Potassium tartrate dibasic hemihydrate

See di-Potassium L(+)-tartrate hemihydrate p.389

(R,R)-(+)-Potassium tartrate dibasic hemihydrate

See di-Potassium L(+)-tartrate hemihydrate p.389

Potassium tellurite

See di-Potassium tellurium trioxide p.389

Potassium tellurium (IV) oxide

See di-Potassium tellurium trioxide p.389

di-Potassium tellurium trioxide

Potassium tellurite , Potassium tellurium (IV) oxide , Potassium tellurium trioxide

Danger
H301
P301+P310

CAS 7790-58-1
EINECS: 232-213-1
UN: 3284
ADR 6.1,II

K_2TeO_3
M.W. 253.8 g/mol
Melting Pt: 460 to 470 °C
Storage Temperature: 2 - 8°C

di-Potassium tellurium trioxide TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27074.154	50 g	Plastic bottle for solids

Potassium tetraiodomercurate solution

Danger
H310 H301 H332 H411
P280 P273 P302+P350 P304+P340 P309+P310

NEW Potassium tetraiodomercurate solution Reag. Ph. Eur. 1071500

Cat. No.	Pk	Pack type
87921.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium tetroxoiodate (VII)

See Potassium periodate p.386

Potassium thiocyanate

Potassium rhodanide

Warning
H302+H312+H332 H412
EUH032
P261 P273 P302+P352 P304+P340 P309+P311

CAS 333-20-0
Index 615-004-00-3
EINECS: 206-370-1

KSCN
M.W. 97.18 g/mol
Density: 1.61 g/cm³ (20 °C)
Boiling Pt: 500 °C (1013 hPa)
Melting Pt: 175 °C
Storage Temperature: Ambient temperature

Potassium thiocyanate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.0 %
Insolubility in alcohol ..... Max. 100 ppm
Substances reducing iodine (as I) ..... Max. 0.025 %
NH_4 (Ammonium) ..... Max. 20 ppm
Cu (Copper) ..... Max. 2 ppm
Na (Sodium) ..... Max. 0.04 %
pH (25°C; 5 %) ..... 5.3 to 8.5
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 50 ppm
S (Sulphide) ..... Max. 40 ppm
Fe (Iron) ..... Max. 1 ppm
Pb (Lead) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27035.230	250 g	Plastic bottle for solids

Potassium thiocyanate GPR RECTAPUR®

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 0.05 %
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
27033.290	1 kg	Plastic bottle for solids
27033.368	5 kg	Plastic bottle for solids

Potassium thiocyanate (< 2.5 mol/l; < 2.5 N) in aqueous solution

CAS 333-20-0
EINECS: 206-370-1

KSCN
Storage Temperature: Ambient temperature

Potassium thiocyanate 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1071801

Cat. No.	Pk	Pack type
87922.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Potassium thiocyanate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31481.295	1 l	Plastic bottle

Potassium (E,E)-hexa-2,4-dienoate

See Potassium sorbate p.388

Potassium trans,trans-hexa-2,4-dienoate

See Potassium sorbate p.388

Potato dextrose agar

See Microbiology

Praseodymium standard solution, 1,000 mg/l Pr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-10-0
EINECS: 231-120-3
UN: 3264
ADR 8,III

Pr
M.W. 140.91 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Praseodymium standard solution, 1,000 mg/l Pr in dil. nitric acid (from Pr_6O_{11}) ARISTAR® standard for ICP

Pr_6O_{11} in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455842L	100 ml	Plastic bottle

Supplied with certificate of analysis.

Preservation system from microorganisms

See Microbiology

Primary Opalescence Suspension (Hydrazinium sulphate 0.5% and hexamethylenetetramine 5% in aqueous suspension)

Danger
H350 H317 H412
P201 P281 P273 P302+P352 P308+P313
UN: 3287
ADR 6.1,III
Storage Temperature: Ambient temperature

Primary opalescence suspension (hydrazinium sulphate 0.5% and hexamethylenetetramine 5% in aqueous suspension) Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85679.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$)

Danger
H314 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3082
ADR 9,III
M.W. 249.69 g/mol
Storage Temperature: Ambient temperature

Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$) Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85746.180	100 ml	Plastic bottle
85746.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$)

Danger
H350i H341 H360F H314 H334 H317 H410
P281 P285 P273 P301+P330+P331 P302+P352
P304+P341 P305+P351+P338 P309+P310
UN: 3082
ADR 9,III

Restricted to professional users. Contains $CoCl_2$.
M.W. 237.93 g/mol
Density: 1.02 to 1.05 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$) Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85745.180	100 ml	Plastic bottle
85745.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 1760
ADR 8,III
M.W. 270.3 g/mol
Density: ~ 1 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$) Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85744.180	100 ml	Plastic bottle
85744.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Procaspase-3 Activator (PAC1, (4-Benzylpiperazino)acetic acid-(3-allyl-2-hydroxybenzylidene)hydrazide)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 315183-21-2

$C_{23}H_{28}N_4O_2$
Storage Temperature: 2 - 8°C

Procaspase-3 Activator (PAC1, (4-Benzylpiperazino)acetic acid-(3-allyl-2-hydroxybenzylidene)hydrazide), reagent grade

A cell-permeable allylsalicylidine hydrazone compound that activates procaspase-3 by overcoming the safety-catch-mediated suppression of caspase autoactivation. Shown to induce tumour retardation and regression in several murine xeonograft models in a dose-dependent manner *in vivo*.

Purity (HPLC) ..... > 95 %
Solubility (10 mg/l, EtOH) ..... PASS

Cat. No.	Pk	Pack type
N845-10MG	10 mg	Plastic bottle
N845-100MG	100 mg	Plastic bottle

Prop-2-enamide

See Acrylamide (monomer) p.14

Pronamide

See Propyzamide p.395

Pronase E

Proteinase , Protease , Pronase

Danger
H319 H335 H315 H334
P280 P285 P305+P351+P338 P309+P311

CAS 9036-06-0
EINECS: 232-909-5
Storage Temperature: -20°C

Pronase E for biotechnology

Activity @40 °C ..... REPORT

Cat. No.	Pk	Pack type
E629-1G	1 g	Glass bottle
E629-5G	5 g	Glass bottle

(±)-1,2-Propanediol

(±)-1,2-Propylene glycol , (±)-1,2-Dihydroxy propane , Propylene glycol

CAS 57-55-6
EINECS: 200-338-0
Flash Pt: 99 °C

$CH_3CH(OH)CH_2OH$
M.W. 76.1 g/mol
Density: 1.04 g/cm³ (20 °C)
Boiling Pt: 187.6 °C (1013 hPa)
Melting Pt: -59 °C
Storage Temperature: Ambient temperature

(±)-1,2-Propanediol TECHNICAL

Assay ..... Min. 99 %
n 20/D ..... 1.431 to 1.433

Cat. No.	Pk	Pack type
24414.296	1 l	Plastic bottle
24414.321	2,5 l	Plastic bottle
24414.365	5 l	Plastic bottle
24414.467	25 l	Metal drum

1,3-Propanediol

1,3-Propylene glycol , 1,3-Dihydroxy propane

CAS 504-63-2
EINECS: 207-997-3

$HO(CH_2)_3OH$
M.W. 76.1 g/mol
Density: 1.0597 g/cm³ (20 °C)
Boiling Pt: 214 °C (1013 hPa)
Melting Pt: -32 °C
Storage Temperature: Ambient temperature

1,3-Propanediol GPR RECTAPUR® for synthesis

Assay ..... Min. 99.7 %
IR Spectrum ..... Passes test
Colouration ..... Max. 15 APHA
Water ..... Max. 0.05 %

Cat. No.	Pk	Pack type
87134.290	1 l	Glass bottle
87134.360	5 l	Plastic bottle

1,2,3-Propanetriol

See Glycerine p.202

1-Propanol

1-Propyl alcohol , Ethyl carbinol , 1-Hydroxy propane , Propylic alcohol

Danger
H225 H318 H336
P210 P243 P280 P304+P340 P305+P351+P338
P309+P310

CAS 71-23-8
Index 603-003-00-0
EINECS: 200-746-9
UN: 1274
ADR 3,II
Flash Pt: 15 °C

$H_3CCH_2CH_2OH$
M.W. 60.1 g/mol
Density: 0.8053 g/cm³ (20 °C)
Boiling Pt: 97 °C (1013 hPa)
Melting Pt: -127 °C
Storage Temperature: Ambient temperature

2-Propanol

2-Hydroxy propane , Dimethyl carbinol , Isopropanol , Isopropyl alcohol , IPA , Propan-2-ol

Danger
H225 H319 H336
P210 P280 P305+P351+P338

CAS 67-63-0
Index 603-117-00-0
EINECS: 200-661-7
UN: 1219
ADR 3,II
Flash Pt: 12 °C

$(CH_3)_2CHOH$
M.W. 60.1 g/mol
Density: 0.786 g/cm³ (20 °C)
Boiling Pt: 82 °C (1013 hPa)
Melting Pt: -89 °C
Storage Temperature: Ambient temperature

1-Propanol HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 %
Alkalinity	Max. 0.0002 %
Evaporation residue (100°C)	Max. 0.001 %
Water	Max. 0.05 %
Transmittance (230 nm)	Min. 50 %
Transmittance (240 nm)	Min. 80 %
Transmittance (270 nm)	Min. 98 %
Conforms to BDH 15303	Passes test

Cat. No.	Pk	Pack type
83635.320	2,5 l	Glass bottle

1-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %	Distillation range	Passes test Reag.Ph.Eur.
Acidity	Max. 0.0003 meq/g	Alkalinity	Max. 0.0006 meq/g
Boiling point	96.9 to 97.5 °C	Colouration	Max. 10 APHA
Density (20/4)	0.801 to 0.804	Density (20/20)	0.802 to 0.806
Acetone	Max. 100 ppm	Evaporation residue	Max. 10 ppm
Ethanol	Max. 0.05 %	Methanol	Max. 0.05 %
2-Propanol	Max. 0.05 %	Propionaldehyde	Max. 0.06 %
Water	Max. 0.1 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.05 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
20861.294	1 l	Glass bottle
20861.320	2,5 l	Glass bottle
20861.363	5 l	Plastic bottle

1-Propanol GPR RECTAPUR®

Assay	Min. 99 %
IR Spectrum	Passes test
Acidity	Max. 0.0003 meq/g
Density (20/4)	0.801 to 0.804
Distillation range	96 to 98 °C
Substances discoloured by H_2SO_4	Max. 150 APHA
Evaporation residue	Max. 100 ppm
Methanol	Max. 0.1 %
Water	Max. 0.2 %
Conforms to BDH 29679	Passes test

Cat. No.	Pk	Pack type
20858.293	1 l	Plastic bottle
20858.362	5 l	Plastic bottle
20858.464	25 l	Metal drum

2-Propanol HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Water	Max. 0.1 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (220 nm)	Min. 50 %
Transmittance (230 nm)	Min. 80 %
Transmittance (250 nm)	Min. 98 %
Conforms to BDH 15252	Passes test

Cat. No.	Pk	Pack type
20880.290	1 l	Glass bottle
20880.320	2,5 l	Glass bottle
20880.400	4 l	Glass bottle

NEW 2-Propanol HiPerSolv CHROMANORM® for preparative HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99,8 %
Acidity	Max. 0,0005 meq/g
Evaporation residue	Max. 0,0005 %
Water	Max. 0,1 %

Cat. No.	Pk	Pack type
84531.460	25 l	Metal drum
84531.550	200 l	Metal drum

NEW 2-Propanol SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.1 %
Transmittance (210 nm)	Min. 25 %
Transmittance (220 nm)	Min. 55 %
Transmittance (230 nm)	Min. 75 %
Transmittance (250 nm)	Min. 95 %
Transmittance (260 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84706.290	1 l	Glass bottle
84706.320	2,5 l	Glass bottle

2-Propanol, anhydrous (max. 0.003% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Evaporation residue	Max. 0.0005 %
Water	Max. 0.003 %

Cat. No.	Pk	Pack type
83677.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

2-Propanol, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Colour value	Max. 10 APHA
Assay	Min. 99.8 %	Aldehydes	Max. 0.0002 %
Formaldehyde	Max. 0.0002 %	Ketones (as C_3H_6O)	Max. 0.005 %
Methanol	Max. 0.1 %	Residue on evaporation	Max. 0.001 %
Water (K.F.)	Max. 0.01 %	Formaldehyde-sulphuric colouration	Max. 60 APHA
Acidity	Max. 0.002 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.1 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.01 ppm

Cat. No.	Pk	Pack type
20838.294	1 l	Glass bottle

2-Propanol AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.7 %	IR Spectrum	Passes test
Acidity	Max. 0.0001 meq/g	Colouration	Max. 10 APHA
Density (20/4)	0.784 to 0.786	Distillation range	82.2 to 82.6 °C
Substances discoloured by H_2SO_4	Max. 60 APHA	Aldehydes (as CH_3CHO)	Max. 2 ppm
Ethanol	Max. 100 ppm	Evaporation residue	Max. 10 ppm
Formaldehyde	Max. 2 ppm	Ketones (as CH_3COCH_3)	Max. 100 ppm
Substances reducing $KMnO_4$ (as O)	Max. 5 ppm	Methanol	Max. 100 ppm
Water	Max. 0.1 %	Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.2 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.01 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm	Na (Sodium)	Max. 0.2 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.05 ppm	Sr (Strontium)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.01 ppm	Conforms to BDH 10224	Passes test

Cat. No.	Pk	Pack type
20842.298	1 l	Glass bottle
20842.312	1 l	Plastic bottle
20842.323	2,5 l	Glass bottle
20842.330	2,5 l	Plastic bottle
20842.367	5 l	Plastic bottle
20842.460	25 l	Metal drum
20842.550	200 l	Metal drum

2-Propanol Ph. Eur.

Assay	Min. 99.0 %
Appearance	Clear colourless liquid
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Appearance test	Passes test
Acidity or alkalinity	Passes test
Absorbance	Passes test
Benzene and related substances	Passes test
Peroxides	Passes test
Non-volatile substances	Max. 20 ppm
Water	Max. 0.5 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20904.293	1 l	Glass bottle
20904.320	2,5 l	Glass bottle
20904.362	5 l	Metal can
20904.465	25 l	Plastic drum
20904.550	200 l	Metal drum

2-Propanol GPR RECTAPUR®

Assay	Min. 99.0 %
Acidity	Passes test
Acidity or alkalinity	Passes test
Benzene and related substances	Passes test
IR Spectrum	Passes test
Peroxides	Passes test
Density (20/20)	0.785 to 0.789
Density (25/25)	0.783 to 0.790
Distillation range	81 to 83 °C
n 20/D	1.376 to 1.378
Evaporation residue	Max. 20 ppm
Water	Max. 0.5 %
Conforms to BDH 29694	Passes test

Cat. No.	Pk	Pack type
20839.297	1 l	Plastic bottle
20839.366	5 l	Plastic bottle
20839.468	25 l	Plastic drum

2-Propanol Electran® Molecular biology grade

Precipitation of DNA with isopropanol is commonly used for concentrating, desalting and recovering purified DNA. Isopropanol precipitations are typically carried out at room temperature with minimal incubation times and are extremely useful during the isolation of large sample volumes of DNA.

- Less volume needed than for ethanol precipitation
- Useful for precipitations with large sample volumes

Assay	Min. 99.7 %
Appearance	Clear colourless liquid
DNases	Not detected
RNases	Not detected
Proteases	Not detected
Acidity or alkalinity	Max. 0.0005 meq/g
Free acid	Max. 0.002 %
Heavy metals (as Pb)	Max. 0.0001 %
Non-volatile matter	Max. 0.0005 %
Ethanol	Max. 0.01 %
Methanol	Max. 0.1 %
Propan-1-ol	Max. 0.05 %
Total P (Phosphorus)	Max. 0.00005 %
Total S (Sulphur)	Max. 0.00005 %
Water	Max. 0.1 %
Ca (Calcium)	Max. 0.00002 %
Cu (Copper)	Max. 0.000002 %
Fe (Iron)	Max. 0.00001 %
Mg (Magnesium)	Max. 0.00001 %
Pb (Lead)	Max. 0.000002 %
Zn (Zinc)	Max. 0.00001 %

Cat. No.	Pk	Pack type
437423R	250 ml	Glass bottle

VWR CHEMICALS 2-Propanol for biotechnology

Colour (APHA)	10
Density	0.782 - 0.788 g/ml
Moisture (KF)	0.2 %
Purity	99.0 %

Cat. No.	Pk	Pack type
0918-500ML	500 ml	Plastic bottle
0918-1L	1 l	Plastic bottle
0918-4L	4 l	Plastic bottle

2-Propanol TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
20922.320	2,5 l	Plastic bottle
20922.364	5 l	Plastic bottle
20922.411	10 l	Plastic drum
20922.466	25 l	Plastic drum
20922.557	200 l	Metal drum

2-Propanol VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152037.	2,5 l	Plastic bottle
52107626.	20 kg	Plastic drum
56997512.	147 kg	Metal drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

2-Propanol SLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51153150.	2,5 l	Plastic bottle
56998148.	147 kg	Metal drum
57033128.	310 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

2-Propanol Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52106195.	150 kg	Metal drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

2-Propanol (≥ 50%)

Danger
H225 H319 H336
P210 P280 P305+P351+P338

CAS 67-63-0
EINECS: 200-661-7
UN: 1987
ADR 3,II
Flash Pt: 12

$(CH_3)_2CHOH$
Density: 0.8 to 0.92 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

2-Propanol 70% (v/v) IPASEPT 70®

Filtered 0.2 µm filter

Assay (Propan-2-ol) (V/V)..... 68.0 to 72.0 %
Assay (Propan-2-ol) (V/V) (USP)..... Passes test USP
Appearance ..... Clear colourless liquid
Acidity..... Passes test USP
Raw materials..... Passes test Ph. Eur.
Density (20/4)..... 0.872 to 0.883
Non-volatile matter..... Max. 100 mg/l

Cat. No.	Pk	Pack type
93002.1016	6 l	Plastic bottle

2-Propanol 70% (v/v) IPASEPT 70®, irradiated

Filtered 0.2 µm filter, packaged under nitrogen

Assay (Propan-2-ol) (V/V)..... 68.0 to 72.0 %
Assay (Propan-2-ol) (V/V) (USP)..... Passes test USP
Appearance ..... Clear colourless liquid
Acidity..... Passes test USP
Raw materials..... Passes test Ph. Eur.
Density (20/4)..... 0.872 to 0.883
Non-volatile matter..... Max. 100 mg/l

Cat. No.	Pk	Pack type
94006.1016	6 x 1 l	Plastic bottle

Propanone
See Acetone p.6

2-Propanone
See Acetone p.6

Propanone-D6
See Acetone-[D6] p.8

(±)-Propene oxide
See Propylene oxide p.395

1-Propyl alcohol
See 1-Propanol p.392

Propyl carbinol
See 1-Butanol p.86

1,3-Propylene glycol
See 1,3-Propanediol p.391

Propylene glycol
See (±)-1,2-Propanediol p.391

(±)-1,2-Propylene glycol
See (±)-1,2-Propanediol p.391

Propylene oxide

(±)-Methyloxirane , (±)-Propene oxide , (±)-Propylene oxide

Danger
H224 H350 H340 H302+H312+H332 H319 H335 H315
P210 P281 P302+P352 P304+P340 P305+P351+P338 P309+P310

CAS 75-56-9
Index 603-055-00-4
EINECS: 200-879-2
UN: 1280
ADR 3,I
Flash Pt: -37 °C

Restricted to professional users.

C_3H_6O
M.W. 58.08 g/mol
Density: 0.83 g/cm³ (20 °C)
Boiling Pt: 34.3 °C (1013 hPa)
Melting Pt: -112 °C
Storage Temperature: 2 - 8°C

Propylene oxide TECHNICAL

Assay..... Min. 99 %

Cat. No.	Pk	Pack type
27165.295	1 l	Glass bottle

Propylic alcohol

See 1-Propanol..... p.392

Propyzamide

3,5-Dichloro-N-(1,1-dimethylprop-2-ynyl)benzamide , Pronamide

Warning
H351 H410
P201 P281 P273 P308+P313

CAS 23950-58-5
Index 616-055-00-4
EINECS: 245-951-4
UN: 3077
ADR 9,III

$C_{12}H_{11}Cl_2NO$
M.W. 256.13 g/mol
Boiling Pt: 321 °C (1013 hPa)
Melting Pt: 155 °C
Storage Temperature: Ambient temperature

Propyzamide, extra pure

Cat. No.	Pk	Pack type
124482Q	10 mg	Glass ampoule

Protease inhibitor cocktail, for general use

Protease inhibitor cocktail, for general use, proteomics grade

Contains a mixture of protease inhibitors: AEBSF, Aprotinin, E-64, Bestatin and Leupeptin. Each vial can be reconstituted in 1 ml deionised water to form a 100X solution.

Cat. No.	Pk	Pack type
M221-1ML	1 ml	Vial

Protease inhibitor cocktail, for general use, with EDTA

Protease inhibitor cocktail, for general use, with EDTA, proteomics grade

Contains a mixture of protease inhibitors: AEBSF, Aprotinin, E-64, Bestatin and Leupeptin. Each vial can be reconstituted in 1 ml deionised water to form a 100X solution.

Cat. No.	Pk	Pack type
M222-1ML	1 ml	Vial

Proteinase K

Danger
H319 H335 H315 H334
P280 P285 P305+P351+P338 P309+P311

CAS 39450-01-6
EINECS: 254-457-8
Storage Temperature: -20°C

Proteinase K (from Tritirachium album) Electran® for electrophoresis, chromatographically purified

Specific activity (calc. on protein)..... Max 40 mAnson-U/mg
DNAses (Nicking activity; pBR 322, 6h, 37°C)..... Not detected
Exonucleases..... Not detected
RNAses (RNA, 6h, 37°C)..... Not detected
Activity (Haemoglobin; pH 7.5, 37°C)..... Min 30 mAnson-U/mg

Cat. No.	Pk	Pack type
390972X	100 mg	Glass bottle
390973P	0,5 g	Glass bottle
39097CB	10 g	Glass bottle

Proteinase K (from Tritirachium album) for biotechnology

Structure of Proteinase K with an antimicrobial nonapeptide. PDB 3OSZ. Singh, A., Sinha, M., Bhushan, A., Kaur, P., Srinivasan, A., Sharma, S., Singh, T.P.

Lyophilised powder. A non specific protease with a molecular weight of approximately 18 kDa. Exhibits high stability and activity in the presence of SDS, EDTA, and urea, as well as over a wide pH range. Activity >30 units/mg.

Activity @37 °C..... 30 U/mg
DNase..... NONE
Reassay Date..... REPORT
RNase..... NONE

Cat. No.	Pk	Pack type
0706-100MG	100 mg	Glass bottle
0706-500MG	500 mg	Glass bottle
0706-1G	1 g	Glass bottle

Proteinase K 20 mg/ml aqueous solution (600 mAnsonU/ml)

Danger
H334
P261 P285 P304+P341 P342+P311

CAS 39450-01-6
EINECS: 254-457-8
Storage Temperature: 2 - 8°C

Proteinase K 20 mg/ml aqueous solution for biotechnology

Structure of Proteinase K with an antimicrobial nonapeptide. PDB 3OSZ. Singh, A., Sinha, M., Bhushan, A., Kaur, P., Srinivasan, A., Sharma, S., Singh, T.P.

A non-specific serine protease with a molecular weight of approximately 18 kDa. This enzyme exhibits high stability and activity in the presence of SDS, EDTA and urea, as well as over a wide pH range. Activity >30 units/mg.

Activity (37 °C) ..... 600 U/ml
RNase ..... NONE

Cat. No.	Pk	Pack type
E195-5ML	5 ml	Plastic bottle
E195-25ML	25 ml	Plastic bottle

Pseudomonas Agar

See Microbiology

PTFE tape

Colour: white

Description	Length	Width	Pk	Cat. No.
PTFE tape	12 m	12 mm	1	332362S

Pumice stone

CAS 1332-09-8
Melting Pt: Min. 500 °C

Pumice stone, granules analytical reagent, washed

Heavy metals (as Pb) ..... Max. 50 ppm
Solubility in water ..... Max. 0.2 %
Soluble chlorides ..... Max. 0.05 %

Cat. No.	Pk	Pack type
26398.293	1 kg	Plastic bottle for solids
26398.362	5 kg	Bucket (Plastic)

Pumice stone, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26396.365	5 kg	Bucket (Plastic)

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Step 1 Check which material is resistant against your chemical at:
www.buerkle.de/en/chemical-resistance.html

Step 2 Choose a pump consisting of a resistant material and with an immersion depth according to your container height.

Step 3 If needed, check the thread of your container opening to find an adapter or barrel screw joint.

Step 4 Have a look on the accessories for recommended safety equipment e.g. the anti-static set when filling off flammable liquids.

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The all-rounder! Resistant against almost all chemicals, even very aggressive ones, and suitable for transferring ultra-pure liquids.

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Germany
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Fax +49 76 35 8 27 95-31
info@buerkle.de
www.buerkle.de

Pump, piston siphon

Piston operated siphon pump. Adjustable bung allows the pump to be used with different containers.

- With PE suction tube
- For drums up to 205 litres

Description	Pk	Cat. No.
Piston syphon pump for containers 10 - 60 litres	1	181-0306
Adapter tri-sure for 205 litre pump	1	181-0300

Lift pumps for solvents

Nylon, with PTFE seals

These lift pumps feature plastic sleeved steel piston rods so that only compatible materials comes in to contact with the fluid being handled. The standard adapter will fit for 2" BSB or 2" NPT threads.

- Fitted with PTFE seals to offer maximum chemical resistance
- There are models to fit from 20 to 210 litre containers

Description	Material	Pk	Cat. No.
Lift pump, nylon, for 20/25 litre containers	Nylon	1	181-0303
Lift pump, nylon for 205 litre containers	Nylon	1	181-0304
Adapter 2" Mauser for 205 litre container		1	224-0000

Lift pumps for chemicals

PP, with PTFE seals

These lift pumps feature plastic sleeved steel piston rods so that only compatible materials comes in to contact with the fluid being handled. The standard adapter will fit for 2" BSB or 2" NPT threads.

- Fitted with PTFE seals to offer maximum chemical resistance
- There are models to fit from 20 to 210 litre containers

Description	Material	Pk	Cat. No.
Lift pump, PP, for 20/25 litre containers	PP	1	181-0301
Lift pump, PP, for 205 litre containers	PP	1	181-0302

Puromycin dihydrochloride

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 58-58-2
EINECS: 200-387-8

$C_{22}H_{31}Cl_2N_7O_5$
Storage Temperature: -20°C

VWR CHEMICALS Puromycin dihydrochloride, ultrapure

Inhibits protein synthesis. Working concentration: 50 µg/ml

Melting Point	168 - 178 °C
Purity	98 %
Solubility (5%, Water)	PASS

Cat. No.	Pk	Pack type
J593-25MG	25 mg	Glass bottle

Purpuric acid ammonium salt

See Murexide p.317

PVP40

See Polyvinylpyrrolidone 40,000 (K30) p.368

PVP 40,000

See Polyvinylpyrrolidone 40,000 (K30) p.368

PVP K30

See Polyvinylpyrrolidone 40,000 (K30) p.368

Pyrene

CAS 129-00-0
EINECS: 204-927-3
Flash Pt: 200 to 220 °C

$C_{16}H_{10}$
M.W. 202.26 g/mol
Density: 1.27 g/cm³ (20 °C)
Boiling Pt: 404 °C (1013 hPa)
Melting Pt: 148 to 150 °C

Pyrene, neat

Cat. No.	Pk	Pack type
123132Q	100 mg	Glass ampoule

Pyridine

Danger
H225 H302+H312+H332
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 110-86-1
Index 613-002-00-7
EINECS: 203-809-9
UN: 1282
ADR 3,II
Flash Pt: 17 °C

C_5H_5N
M.W. 79.1 g/mol
Density: 0.983 g/cm³ (20 °C)
Boiling Pt: 115 °C (1013 hPa)
Melting Pt: -44 °C
Storage Temperature: Ambient temperature

Pyridine, anhydrous (max. 0.003% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.8 %
Evaporation residue	Max. 3 ppm
Water	Max. 30 ppm

Cat. No.	Pk	Pack type
83684.230	250 ml	Glass bottle

Bottle with a septum cap featuring six separate re-sealable puncture points

Pyridine, anhydrous AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent, for Karl Fischer reagent

Appearance	Clear colourless liquid	Assay (GC)	Min. 99.7 %
Acidity or alkalinity	Max. 0.2 meq/g	Water	Max. 0.02 %
Evaporation residue	Max. 0.002 %	Reducing substances	Max. 0.0005 %
Piperidine	Max. 0.01 %	2-Methylpyridine	Max. 0.2 %
NH_4 (Ammonium)	Max. 0.001 %	Cl (Chloride)	Max. 0.0005 %
SO_4 (Sulphate)	Max. 0.0005 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.05 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.01 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
27198.298	1 l	Glass bottle

Pyridine, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Assay (calculated on anhydrous)	Min. 99.5 %
Acidity or alkalinity	Max. 0.002 meq/g	Water (K.F.)	Max. 0.01 %
Residue on evaporation	Max. 0.001 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
27197.295	1 l	Glass bottle

Pyridine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.7 %	Aqueous solution	Passes test
IR Spectrum	Passes test	Acidity or alkalinity	Max. 0.2 meq/g
Boiling point	114 to 116 °C	Colouration	Max. 10 APHA
Density (20/4)	0.981 to 0.983	Ammonia	Max. 20 ppm
Evaporation residue	Max. 20 ppm	Substances reducing $KMnO_4$ (as O)	Max. 5 ppm
alpha-Picoline	Max. 0.2 %	Piperidine	Max. 100 ppm
Water	Max. 0.1 %	Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm	Al (Aluminium)	Max. 0.05 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.05 ppm	Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.2 ppm	Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm	Na (Sodium)	Max. 1 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.05 ppm	Conforms to BDH 10225	Passes test
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27199.268	500 ml	Glass bottle
27199.292	1 l	Glass bottle
27199.326	2,5 l	Glass bottle

Pyridine GPR RECTAPUR®

Assay ..... Min. 99 %
Evaporation residue ..... Max. 20 ppm
Water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
8226.2500	2,5 l	Glass bottle

Pyridine TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
27194.295	1 l	Glass bottle

Pyrogallic acid

See Pyrogallol p.400

Pyrogallol

1,2,3-Trihydroxybenzene , Pyrogallic acid

Warning
H341 H302+H312+H332 H412
P201 P281 P273 P302+P352 P304+P340 P309+P311

CAS 87-66-1
Index 604-009-00-6
EINECS: 201-762-9
UN: 2811
ADR 6.1,III

$C_6H_6O_3$
M.W. 126.11 g/mol
Density: 1.453 g/cm^3 (20 °C)
Boiling Pt: 309 °C (1013 hPa)
Melting Pt: 130 to 132 °C
Storage Temperature: Ambient temperature

Pyrogallol AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Melting point ..... 131 to 134 °C
Ignition residue (SO_4) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Acidity ..... Max. 0.005 meq/g
Heavy metals (as Pb) ..... Max. 5 ppm
Cl (Chloride) ..... Max. 10 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27206.231	250 g	Glass bottle for solids

Pyrogallol GPR RECTAPUR®

IR Spectrum ..... Passes test
Melting point ..... 131 to 133 °C
Ignition residue (SO_4) ..... Max. 0.1 %
Water ..... Max. 1.0 %

Cat. No.	Pk	Pack type
20647.237	250 g	Glass bottle for solids

Pyronine G

3,6-Bis(dimethylamino)xanthylium chloride , Pyronine Y

CAS 92-32-0
EINECS: 202-147-8

$C_{17}H_{19}ClN_2O$
M.W. 302.8 g/mol
Melting Pt: 250 to 260 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Pyronine G, ultrapure

Used in Unna-Pappenheim stain to demonstrate RNA (red) in contrast to DNA (green). Also used for bacteria staining.

Lambda max (0.1 g/500 ml then 1:100, Water) ..... 543 - 553 nm

Cat. No.	Pk	Pack type
0207-10G	10 g	Glass bottle

Pyruvic acid sodium salt

See Sodium pyruvate p.455

Quartz
Silicium (IV) oxide , Silicium dioxide , Silicon dioxide , Sand, white quartz

CAS 14808-60-7
EINECS: 238-878-4

SiO_2
M.W. 60.08 g/mol
Density: 2.622 to 2.645 g/cm³ (20 °C)
Boiling Pt: 2230 °C (1013 hPa)
Melting Pt: 1427 °C
Storage Temperature: Ambient temperature

Quartz, wool TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24950.152	50 g	Cardboard carton

Quinaldine red in methanol

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310

CAS 117-92-0
EINECS: 204-221-5
UN: 1230
ADR 3,II

H_3COH
M.W. 430.33 g/mol
Storage Temperature: Ambient temperature

Quinaldine red 0.1% in methanol Reag. Ph. Eur. 1073801

Cat. No.	Pk	Pack type
87923.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Quinhydrone
2,5-Cyclohexadiene-1,4-dione, compd. with 1,4-benzenediol (1:1)

Danger
H301 H400
P273 P301+P310

CAS 106-34-3
EINECS: 203-387-6
UN: 2811
ADR 6.1,III

$C_6H_4(OH)_2 \cdot C_6H_4O_2$
M.W. 218.21 g/mol
Density: 1.35 g/cm³ (20 °C)
Melting Pt: 168 to 171 °C
Storage Temperature: Ambient temperature

Quinhydrone AnalaR NORMAPUR® analytical reagent

IR Spectrum ..... Passes test
Hydroquinone ..... 48.3 to 52.0 %
Insolubility in ethanol ..... Max. 0.02 %
Fe (Iron) ..... Max. 10 ppm
p-Benzoquinone ..... 48.0 to 52.0 %
Ignition residue (SO_4) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
27230.187	100 g	Glass bottle

(-)-Quinine sulphate dihydrate
(-)-Quinine hemisulfate monohydrate

CAS 6119-70-6
EINECS: 212-359-2

$C_{40}H_{50}N_4O_8S.2H_2O$
M.W. 782.96 g/mol
Density: 1.36 g/cm³ (20 °C)
Melting Pt: 219 °C
Storage Temperature: Ambient temperature

(-)-Quinine sulphate dihydrate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27250.120	10 g	Plastic bottle for solids

Quinol

See Hydroquinone p.232

Quinoline

Danger
H350 H341 H302+H312 H319 H315 H411
P201 P281 P273 P302+P352 P305+P351+P338
P309+P310

CAS 91-22-5
Index 613-281-00-5
EINECS: 202-051-6
UN: 2656
ADR 6.1,III
Flash Pt: 107 °C (closed cup)

C_9H_7N
M.W. 129.16 g/mol
Density: 1.095 g/cm³ (20 °C)
Boiling Pt: 238 °C (1013 hPa)
Melting Pt: -15 °C
Storage Temperature: Ambient temperature

Quinoline TECHNICAL

Assay ..... Min. 96 %
IR Spectrum ..... Passes test

Cat. No.	Pk	Pack type
27341.294	1 l	Glass bottle

8-Quinolinol
8-Hydroxyquinoline

Warning
H302+H332
P261 P304+P340 P309+P311

CAS 148-24-3
EINECS: 205-711-1

C_9H_7NO
M.W. 145.16 g/mol
Density: 1.03 g/cm³ (20 °C)
Boiling Pt: 267 °C (1013 hPa)
Melting Pt: 71.2 °C
Storage Temperature: Ambient temperature

8-Quinolinol AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Melting point	72.5 to 74.0 °C
Ignition residue (SO_4)	Max. 0.02 %	Insolubility in acetone	Max. 50 ppm
Insolubility in HCl 2 N	Max. 100 ppm	Insolubility in NaOH 1 N (± 80°C)	Max. 100 ppm
Cl (Chloride)	Max. 20 ppm	SO_4 (Sulphate)	Max. 0.02 %

Cat. No.	Pk	Pack type
26123.237	250 g	Glass bottle

D(+)-Raffinose pentahydrate

Melitose pentahydrate , Melitriose pentahydrate , Gossypose pentahydrate

CAS 17629-30-0
EINECS: 208-146-9

$C_{18}H_{32}O_{16}.5H_2O$
M.W. 594.52 g/mol
Density: 1.516 g/cm³ (20 °C)
Melting Pt: 80 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS D(+)-Raffinose pentahydrate, ultrapure

Arsenic	< 0.00005 %
Heavy Metals	<0.001 %
Iron	<0.0005 %
Purity (HPLC)	98.0 %
Residue on Ignition	0.1 %
Solubility (10%, Water)	PASS
Specific Rotation (10%, Water)	+103 to +107 °
Water Content (KF)	13.0 - 17.0 %

Cat. No.	Pk	Pack type
J392-100G	100 g	Plastic bottle for solids
J392-500G	500 g	Plastic bottle for solids

Rambach agar

See Microbiology

Rappaport vassiliadis broth

See Microbiology

Rare earth

Ammonium cerium (IV) nitrate GPR RECTAPUR® ACS, ISO, Reag. Ph. Eur. p.31
Ammonium cerium (IV) sulphate dihydrate GPR RECTAPUR® p.31
Cerium (IV) sulphate tetrahydrate analytical reagent p.100
di-Yttrium trioxide GPR RECTAPUR® p.548
Holmium (III) oxide GPR RECTAPUR® p.219
Lanthanum (III) chloride heptahydrate GPR RECTAPUR® p.262
Lanthanum (III) nitrate hexahydrate GPR RECTAPUR® p.262
Lanthanum (III) oxide GPR RECTAPUR® p.262
Yttrium (III) chloride hexahydrate GPR RECTAPUR® p.548

RBC Agar

See Microbiology

Chemical reagents according to Reag.Ph.Eur

Description	Page	Pk	Cat. No.
Acetic acid 30% Reag. Ph. Eur. 1000401	4, 404	1 l	87758.290
Acetic acid 12% Reag. Ph. Eur. 1000402	4, 404	1 l	87759.290
Acetic anhydride 25% in pyridine Reag. Ph. Eur. 1000501	6, 404	1 l	87760.290
Acetylacetone solution Reag. Ph. Eur. 1000901	11, 404	100 ml	87761.180
Alizarin S solution Reag. Ph. Eur. 1002601	22, 404	100 ml	87763.180
Aluminium chloride 40.6% aqueous solution with 0.55% sodium chloride Reag. Ph. Eur. 1002701	23, 404	100 ml	87764.180
Aluminium chloride reagent Reag. Ph. Eur. 1002702	23, 404	1 l	87765.290
4-Aminohippuric acid reagent Reag. Ph. Eur. 1003701	26, 404	100 ml	87973.180
Ammonia 17% Reag. Ph. Eur. 1004701	29, 404	100 ml	87707.180
Ammonia 6 mol/l (6 N) Reag. Ph. Eur. 1004702	29, 404	1 l	87682.290
Ammonia 2 mol/l (2 N) Reag. Ph. Eur. 1004703	29, 404	1 l	87766.290
Ammonia 0.1 mol/l (0.1 N) Reag. Ph. Eur. 1004704	29, 404	1 l	87767.290
Standard solution (250 ppm NH_4) for the preparation of Ammonium standard solution (2.5 ppm NH_4) Reag.Ph.Eur.; 5000301	30, 404	100 ml	88084.180
Ammonium carbonate 1 mol/l in aqueous solution Reag. Ph. Eur. 1005201	31, 404	1 l	87768.290
Ammonium chloride 2 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1005301	32, 404	1 l	87769.290
Ammonium chloride buffer solution pH 10.0 Reag. Ph. Eur. 4007300	32, 404	1 l	85739.290
Ammonium heptamolybdate 10% in aqueous solution Reag. Ph. Eur. 1005702	34, 404	1 l	87770.290
Ammonium heptamolybdate 10% in aqueous solution Reag. Ph. Eur. 1005703	34, 404	1 l	87771.290
Ammonium heptamolybdate 0.04 mol/l in sulphuric acid 50% Reag. Ph. Eur. 1086500	34, 404	100 ml	87947.180
Ammonium heptamolybdate 0.004 mol/l in sulphuric acid 96% Reag. Ph. Eur. 1086400	34, 404	100 ml	87946.180
Ammonium heptamolybdate 4% and ammonium metavanadate 0.1% in nitric acid 20% Reag. Ph. Eur. 1056700	34, 404	100 ml	87872.180
Ammonium molybdate solution R3 Reag. Ph. Eur. 1005704	37, 404	1 l	87772.290
Ammonium molybdate solution R4 Reag. Ph. Eur. 1005705	37, 404	500 ml	87773.260
Ammonium oxalate solution Reag. Ph. Eur. 1005901	37, 404	1 l	87774.290
Ammonium thiocyanate 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1006701	40, 404	1 l	87775.290
Ammonium vanadate solution Reag. Ph. Eur. 1006801	40, 404	1 l	87776.290
Anisaldehyde solution Reag. Ph. Eur. 1007301	48, 404	100 ml	87777.180
Antimony (III) chloride solution R1 Reag. Ph. Eur. 1007702	49, 404	100 ml	87780.180
Antimony trichloride solution Reag. Ph. Eur. 1007701	49, 404	100 ml	87779.180
Arsenite solution Reag. Ph. Eur. 1008301	51, 404	100 ml	87781.180
Ascorbic acid solution Reag. Ph. Eur. 1008401	51, 404	100 ml	87782.180
Barium chloride 0.15 mol/l (0.3 N) in aqueous solution Reag. Ph. Eur. 1009302	59, 404	1 l	87784.290
Barium chloride 0.25 mol/l (0.5 N) in aqueous solution Reag. Ph. Eur. 1009301	59, 404	1 l	87783.290
Barium hydroxide 0.15 mol/l (0.3 N) in aqueous solution Reag. Ph. Eur. 1009401	60, 404	1 l	87785.290
Bis(ethylenediamine)copper dihydroxide 21% in aqueous solution Reag. Ph. Eur. 3008700	67, 404	1 l	87712.290
Bismuth subnitrate solution Reag. Ph. Eur. 1011502	70, 404	500 ml	87786.260
Biuret reagent solution Reag. Ph. Eur.	70, 404	1 l	87787.290
Borate solution Reag. Ph. Eur. 1033601	70, 404	1 l	87826.290
Bromophenol blue solution R1 Reag. Ph. Eur. 1012802	76, 404	100 ml	87795.180
Bromothymol blue 1% in DMF Reag. Ph. Eur. 1012902	77, 404	100 ml	87797.180
Buffer solution pH 3.5 Reag. Ph. Eur. 4000600	83, 404	1 l	85669.290
Standard solution (1000 ppm Ca) for the preparation of calcium standard solution (100 ppm Ca), alcoholic Reag.Ph.Eur.; 5000802	91, 404	100 ml	88085.180
Calcium chloride 0.5 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1014601	93, 404	1 l	87800.290
Calcium chloride 0.02 mol/l (0.04 N) in aqueous solution Reag. Ph. Eur. 1014603	93, 404	1 l	87802.290
Calcium chloride 0.01 mol/l (0.02 N) in aqueous solution Reag. Ph. Eur. 1014602	93, 404	1 l	87801.290
Calcium sulphate saturated solution in water Reag. Ph. Eur. 1015201	96, 404	1 l	87803.290
Chloral hydrate 80% in aqueous solution Reag. Ph. Eur. 1017901	104, 404	100 ml	87804.180
Congo Red 0.1% in ethanol 15% (v/v) Reag. Ph. Eur. 1022001	121, 404	100 ml	87805.180
Copper edetate solution Reag. Ph. Eur. 1022300	123, 404	1 l	87807.290
Copper (II) sulphate 0.5 mol/l Reag. Ph. Eur. 1022501	125, 404	1 l	87808.290
Copper tetramine complex in aqueous solution (Copper (II) hydroxide 10% in ammonia solution 20%) Reag. Ph. Eur. 1022600	125, 404	100 ml	87809.180
Crystal violet solution Reag. Ph. Eur. 1022901	127, 404	100 ml	87811.180
Cupri-citric solution Reag. Ph. Eur. 1023100	127, 404	1 l	87812.290
Cupri-citric solution R1 Reag. Ph. Eur. 1023200	127, 404	1 l	87813.290
Cupri-tartaric solution R4 Reag. Ph. Eur. 1023304	127, 404	1 l	87815.290
Destaining solution Reag. Ph. Eur. 1012202	136, 404	1 l	87788.290
Dichloromethane, acidified with 1% hydrochloric acid Reag. Ph. Eur. 1055901	143, 404	100 ml	87871.180
Dimethylaminobenzaldehyde solution R6 Reag. Ph. Eur. 1029803	148, 404	100 ml	87816.180
Dinitrobenzoic acid solution Reag. Ph. Eur. 1031301	152, 404	1 l	87819.290
1,4-Dioxane 0.1% in aqueous solution Reag. Ph. Eur. 1032001	153, 404	100 ml	87820.180
1,4-Dioxane 0.05% in aqueous solution Reag. Ph. Eur. 1032002	153, 404	100 ml	87821.180
Diphenylamine 1% in sulphuric acid 96% Reag. Ph. Eur. 1032102	154, 404	1 l	87823.290
Dithizone solution R2 Reag. Ph. Eur. 1033903	156, 404	100 ml	87827.180
di-Vanadium pentoxide solution in sulfuric acid Reag. Ph. Eur. 1034001	404, 531	100 ml	87828.180
Eriochrome Black T triturate 1% in sodium chloride Reag. Ph. Eur. 1056801	172, 404	100 g	87873.180
Ethyl acetate Reag. Ph. Eur. 1035301	180, 404	1 l	87829.290
Fehling's reagent (kit, contains solution I and II) Reag. Ph. Eur. 1023300 for qualitative determination of reducing sugars	183, 404	1 l	87814.290
Ferric ammonium sulfate solution R2 Reag. Ph. Eur. 1037702	184, 404	1 l	87830.290
Ferric ammonium sulfate solution R5 Reag. Ph. Eur. 1037704	184, 404	100 ml	87831.180
Ferric ammonium sulfate solution R6 Reag. Ph. Eur. 1037705	184, 404	100 ml	87832.180
Ferric chloride solution R3 Reag. Ph. Eur. 1037803	184, 404	100 ml	87835.180
Ferric chloride-sulfamic acid reagent Reag. Ph. Eur. 1037804	184, 404	1 l	87836.290
Ferroin (1,10-Phenanthroline-ferrous sulphate-complex) 0.025 mol/l in aqueous solution Reag. Ph. Eur. 1038100 redox indicator	184, 404	100 ml	87702.180
Fixing solution (0.02% formaldehyde and 0.01% citric acid in aqueous solution) Reag. Ph. Eur. 1122500	185, 404	500 ml	87969.260
Fixing solution (0.02% formaldehyde in methanol 50% (v/v)) Reag. Ph. Eur. 1122600	185, 404	500 ml	87970.260
Fixing solution for isoelectric focusing in polyacrylamide gel Reag. Ph. Eur. 1138700	185, 404	500 ml	87972.260
Formaldehyde 35% Reag. Ph. Eur. 1039101	187, 404	100 ml	87837.180
Formaldehyde 0.4% in sulphuric acid 95% Reag. Ph. Eur. 1086805	189, 404	100 ml	87951.180
Formamide, treated Reag. Ph. Eur. 1039201	191, 404	100 ml	87838.180
Fuchsin solution, decolourised Reag. Ph. Eur. 1039401	193, 404	100 ml	87839.180

Description	Page	Pk	Cat. No.
Fuchsin solution, decolourised R1 Reag. Ph. Eur. 1039402	193, 405	100 ml	87840.180
Holmium perchlorate solution Reag. Ph. Eur. 1043101	219, 405	1 l	87841.290
Hydrochloric acid 25% Reag. Ph. Eur. 1043501	227, 405	1 l	87842.290
Hydrochloric acid 2 mol/l (2 N) Reag. Ph. Eur. 1043503	228, 405	1 l	85848.290
Hydrochloric acid 0.03 mol/l (0.03 N) Reag. Ph. Eur.	229, 405	1 l	87843.290
Hydrochloric acid 0.01 mol/l (0.01 N) Reag. Ph. Eur. 1043504	229, 405	1 l	85849.290
Hydrochloric acid 0.25% in methanol Reag. Ph. Eur. 1053203	229, 405	100 ml	87868.180
Hydrochloric acid, brominated Reag. Ph. Eur. 1043507	229, 405	1 l	87845.290
Hydroxylamine solution, alcoholic Reag. Ph. Eur. 1044301	233, 405	100 ml	87847.180
Hydroxylamine solution, alkaline Reag. Ph. Eur. 1044302	233, 405	1 l	87848.290
Hydroxylamine solution, alkaline R1 Reag. Ph. Eur. 1044303	233, 405	200 ml	87849.220
Hydroxylamine hydrochloride solution R2 Reag. Ph. Eur. 1044304	234, 405	100 ml	87850.180
Hypophosphorous reagent Reag. Ph. Eur. 1045200	234, 405	1 l	87851.180
Mixed indicator methyl orange - bromocresol green in aqueous solution Reag. Ph. Eur. 1054801	240, 405	100 ml	87870.180
Indigo carmine 0,4% in dil. sulphuric acid Reag. Ph. Eur. 1045602	244, 405	1 l	87853.290
Indigo carmine 0,4% in mixture of sulphuric acid 20% and hydrochloric acid 1% Reag. Ph. Eur.	244, 405	1 l	87852.290
Iodine solution R4 Reag. Ph. Eur. 1045806	246, 405	1 l	87856.290
Iodine 5 g/l in chloroform Reag. Ph. Eur. 1045805	246, 405	1 l	87855.290
Iodine monobromide 20 g/l in acetic acid 99% Reag. Ph. Eur. 1045901	246, 405	100 ml	87714.180
Iodoplatinate reagent Reag. Ph. Eur. 1046300	247, 405	1 l	87857.290
Standard solution (200 ppm Fe) for the preparation of iron standard solution (20 ppm Fe) Reag. Ph. Eur.; 5001600	249, 405	100 ml	88086.180
Iron (III) chloride 105 g/l in aqueous solution Reag. Ph. Eur. 1037801	250, 405	1 l	87833.290
Iron (III) chloride 13 g/l in aqueous solution Reag. Ph. Eur. 1037802	250, 405	1 l	87834.290
Iron salicylate solution Reag. Ph. Eur. 1046700	252, 405	500 ml	87858.260
Lanthanum standard solution, 50,000 mg/l La in water Reag. Ph. Eur. 1114001	261, 405	1 l	87968.290
Lanthanum nitrate solution Reag. Ph. Eur. 1048001	262, 405	1 l	87859.290
Lead standard solution (0.1% Pb) Reag. Ph. Eur. 5001700	262, 405	100 ml	88087.180
Lead acetate solution Reag. Ph. Eur. 1048103	263, 405	1 l	87860.290
Lead acetate cotton Reag. Ph. Eur. 1048101	263, 405	10 g	85868.130
Lead (II) acetate paper Reag. Ph. Eur. 1048102 for detection of hydrogen sulfide and sulfide	263, 405	50	85869.150
Lead nitrate solution Reag. Ph. Eur. 1048301	265, 405	1 l	87861.290
Magnesium nitrate solution Reag. Ph. Eur. 1049801	275, 405	1 l	87862.290
Malachite green solution Reag. Ph. Eur. 1050501	276, 405	1 l	87863.290
Mercuric acetate solution Reag. Ph. Eur. 1052001	281, 405	100 ml	87864.180
Mercuric bromide paper Reag. Ph. Eur. 1052101 for the determination of arsenic	282, 405	50	85875.150
Mercuric chloride solution Reag. Ph. Eur. 1052201	282, 405	1 l	87865.290
Mercury (II) nitrate 70% in aqueous solution Reag. Ph. Eur. 1052801	284, 405	100 ml	87867.180
Mercury (II) sulphate 50 g/l in sulphuric acid 24% Reag. Ph. Eur. 1052600	284, 405	100 ml	87866.180
Methyl orange solution Reag. Ph. Eur. 1054802	292, 405	100 ml	85882.180
1-Naphtholbenzeine 0.2% in acetic acid Reag. Ph. Eur. 1057601	318, 405	100 ml	87874.180
Ninhydrin solution R2 Reag. Ph. Eur. 1058305	322, 405	100 ml	87878.180
Ninhydrin and stannous chloride reagent Reag. Ph. Eur. 1058301	322, 405	100 ml	87875.180
Ninhydrin solution R3 Reag. Ph. Eur. 1058306	322, 405	100 ml	87879.180
Ninhydrin solution Reag. Ph. Eur. 1058303	322, 405	100 ml	87713.180
Ninhydrin reagent kit (Ninhydrin and stannous chloride reagent R1) Reag. Ph. Eur. 1058302	322, 405	100 ml	87876.180
Standard solution (1000 ppm NO_3^-) for the preparation of nitrate standard solution (100 ppm NO_3^-) Reag.Ph.Eur.; 5002100	323, 405	100 ml	88088.180
Nitric acid 20% Reag. Ph. Eur. 1058402	326, 405	100 ml	87880.180
Orthoperiodic acid 0.002 mol/l in acetic acid Reag. Ph. Eur. 1063000	332, 405	100 ml	87887.180
Orthophosphoric acid 10% Reag. Ph. Eur. 1065101	333, 405	100 ml	87895.180
Oxalic acid 0.5% in sulphuric acid 50% (v/v) Reag. Ph. Eur. 1061401	334, 405	1 l	87883.290
Palladium (II) chloride 0.4% in hydrochloric acid 13.5% Reag. Ph. Eur. 1061501	337, 405	100 ml	87884.180
Pararosaniline solution, decolourised Reag. Ph. Eur. 1062201	339, 405	100 ml	87885.180
Perchloric acid 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1062901	349, 405	100 ml	87886.180
pH-Indicator paper congo red Reag. Ph. Eur. 1022002	353, 405	50 Tests	87806.600
pH-Indicator paper phenolphthalein Reag. Ph. Eur. 1063704	353, 405	50 Tests	87891.150
Phenol red 0.002% and ammonium sulphate 0.01% aqueous solution, buffered pH 4,7 Reag. Ph. Eur. 1063604	361, 405	500 ml	87890.260
Phenol red 0.002% and ammonium sulphate 0.005% aqueous solution, buffered pH 4,7 Reag. Ph. Eur. 1063603	361, 405	500 ml	87889.260
Phenylhydrazinium chloride 0.36% in hydrochloric acid 5% Reag. Ph. Eur. 1064501	362, 405	250 ml	87892.230
Standard solution (500 ppm PO_4) for the preparation of phosphate standard solution (5 ppm PO_4) Reag.Ph.Eur. 5002200	362, 405	100 ml	88089.180
Phosphomolybdotungstic reagent dilute Reag. Ph. Eur. 1065001	362, 405	100 ml	87894.180
Phosphomolybdotungstic reagent Reag. Ph. Eur. 1065000	362, 405	100 ml	87893.180
Picric acid 10 g/l in aqueous solution Reag. Ph. Eur. 1065801	365, 405	100 ml	87897.180
Potassium chloride 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1069101	372, 405	1 l	87898.290
Potassium chromate 5% in aqueous solution Reag. Ph. Eur. 1069201	373, 405	1 l	87899.290
Nitrochromic reagent Reag. Ph. Eur. 1059100	327, 405	100 ml	87881.180
Potassium dichromate 0.5% in aqueous solution Reag. Ph. Eur. 1069502	374, 405	1 l	87900.290
Potassium dichromate 0.36 mol/l (106 g/l) in aqueous solution Reag. Ph. Eur. 1069501	374, 405	500 ml	87716.260
Potassium dihydrogen phosphate 0.2 mol/l in aqueous solution Reag. Ph. Eur. 1069601	376, 405	1 l	87901.290
Potassium ferriperiodate solution Reag. Ph. Eur. 1070801	376, 405	50 ml	87917.130
Potassium heptaiodobismuthate 8% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070602	376, 405	100 ml	87914.180
Potassium heptaiodobismuthate 6.1% with potassium iodide in dil. acetic acid Reag. Ph. Eur. 1070600	377, 405	100 ml	87912.180
Potassium heptaiodobismuthate 6.1% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070601	377, 405	600 ml	87913.270
Potassium heptaiodobismuthate 0.5% with barium chloride and potassium iodide in dil. acetic acid Reag. Ph. Eur. 1070605	377, 405	100 ml	87916.180
Potassium heptaiodobismuthate 0.5% with potassium iodide in aqueous L(+)-tartaric acid solution Reag. Ph. Eur. 1070603	377, 405	500 ml	87915.260
Potassium hexacyanoferrate (II) trihydrate 5.3% (w/v) in aqueous solution Reag. Ph. Eur. 1069801	378, 405	100 ml	87902.180
Potassium hexahydroxoantimonate 0.05 mol/l in potassium hydroxide solution 1.6% Reag. Ph. Eur. 1071301	378, 405	100 ml	87725.180
Potassium hydrogen phthalate 0.2 mol/l in aqueous solution Reag. Ph. Eur. 1070001	380, 405	1 l	87903.290
Potassium hydroxide 6.6 g/l in ethanol 95% Reag. Ph. Eur. 1070304	382, 405	1 l	87907.290
Potassium iodide 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1070502	384, 405	1 l	87909.290
Potassium iodide saturated solution in water Reag. Ph. Eur. 1070504	385, 405	100 ml	87911.180

Description	Page	Pk	Cat. No.
Iodinated potassium iodide solution (mixture of 60g/l potassium iodide and 20 g/l iodine in aqueous solution) Reag. Ph. Eur. 1070503	385, 406	100 ml	87910.180
Potassium iodide and starch solution Reag. Ph. Eur. 1070501	385, 406	100 ml	87908.200
Potassium permanganate 30 g/l in ortho-phosphoric acid 22% Reag. Ph. Eur. 1070901	387, 406	100 ml	87918.180
Potassium permanganate 3% in aqueous solution Reag. Ph. Eur. 1070902	386, 406	1 l	87919.290
Potassium plumbite solution Reag. Ph. Eur. 1071200	387, 406	100 ml	87920.180
Potassium tetraiodomercurate solution Reag. Ph. Eur. 1071500	389, 406	100 ml	87921.180
Potassium thiocyanate 1 mol/l (1 N) in aqueous solution Reag. Ph. Eur. 1071801	390, 406	1 l	87922.290
Primary opalescence suspension (hydrazinium sulphate 0.5% and hexamethylenetetramine 5% in aqueous suspension) Reag. Ph. Eur.	390, 406, 407	100 ml	85679.180
Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$) Reag. Ph. Eur.	390, 406, 407	100 ml	85746.180
Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$) Reag. Ph. Eur.	390, 406, 407	500 ml	85746.260
Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$) Reag. Ph. Eur.	390, 406, 407	100 ml	85745.180
Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$) Reag. Ph. Eur.	390, 406, 407	500 ml	85745.260
Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$) Reag. Ph. Eur.	391, 406, 407	100 ml	85744.180
Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$) Reag. Ph. Eur.	391, 406, 407	500 ml	85744.260
Quinaldine red 0.1% in methanol Reag. Ph. Eur. 1073801	401, 406	100 ml	87923.180
Silver nitrate solution in pyridine Reag. Ph. Eur. 1078304	406, 428	100 ml	87926.180
Silver nitrate 0.25 mol/l (0.25 N) in aqueous solution Reag. Ph. Eur. 1078301	406, 427	1 l	87924.290
Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1078302	406, 427	1 l	87925.290
Silver nitrate reagent Reag. Ph. Eur. 1078305	406, 428	100 ml	87927.180
Sodium carbonate 4% (40 g/l) in sodium hydroxide solution 0.2 mol/l Reag. Ph. Eur. 1079303	406, 434	1 l	87930.290
Sodium carbonate 2% (20 g/l) in sodium hydroxide solution 0.1 mol/l Reag. Ph. Eur. 1079302	406, 434	1 l	87929.290
Sodium carbonate 1 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1079301	406, 434	1 l	87928.290
Sodium chloride 20% in aqueous solution Reag. Ph. Eur. 1079502	406, 435	1 l	87931.290
Sodium hydrogen carbonate 0.5 mol/l in aqueous solution Reag. Ph. Eur. 1081301	406, 442	1 l	87932.290
di-Sodium hydrogen phosphate dodecahydrate 9% in aqueous solution Reag. Ph. Eur. 1033301	406, 444	1 l	87825.290
Sodium hydroxide 50% in aqueous solution Reag. Ph. Eur. 1081406 carbonate free	406, 445	1 l	87938.290
Sodium hydroxide 20% in aqueous solution Reag. Ph. Eur. 1081401	406, 446	1 l	87933.290
Potassium iodo mercurate (II) reagent, solution B (sodium hydroxide 20% aqueous solution) Reag. Ph. Eur. 1071600 for determination of ammonia and ammonium salts	385, 406	100 ml	87710.180
Sodium hydroxide 10 mol/l (10 N) in aqueous solution Reag. Ph. Eur. 1081404	406, 447	1 l	87936.290
Sodium hydroxide 2 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1081402	406, 447	1 l	87934.290
Sodium hydroxide 0.005 mol/l (0.005 N) in methanol 50% Reag. Ph. Eur. 1081405	406, 448	100 ml	87937.180
Sodium hydroxide 0.001 mol/l (0.001 N) in methanol 50% Reag. Ph. Eur. 1081403	406, 448	100 ml	87935.180
Sodium hypochlorite 2.5% Cl_2 in aqueous solution Reag. Ph. Eur. 1081600	406, 449	1 l	87939.290
Sodium picrate 13 g/l in aqueous solution Reag. Ph. Eur. 1065802	406, 455	100 ml	87715.180
di-Sodium sulphide 0.5 mol/l in glycerine 35% Reag. Ph. Eur. 1083901	406, 458	100 ml	87940.180
Colour Reference Solution B (brown) for testing the colour intensity acc. to Ph. Eur. B1-B9 Reag. Ph. Eur.	406, 407, 467	125 ml	87169.180
Colour Reference Solution BY (brownish yellow) for testing the colour intensity acc. to Ph. Eur. BY1-BY7 Reag. Ph. Eur.	406, 407, 467	125 ml	85748.180
Colour Reference Solution GY (greenish yellow) for testing the colour intensity acc. to Ph. Eur. GY1-GY7 Reag. Ph. Eur.	406, 407, 467	125 ml	85750.180
Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7 Reag. Ph. Eur.	406, 407, 467	125 ml	85751.180
Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7 Reag. Ph. Eur.	406, 407, 467	500 ml	85751.260
Colour Reference Solution Y (yellow) for testing the colour intensity acc. to Ph. Eur. Y1-Y7 Reag. Ph. Eur.	406, 407, 467	125 ml	85749.180
Tin (II) chloride 30% in hydrochloric acid 20% Reag. Ph. Eur. 1085001	406, 507	100 ml	87941.180
Starch 1% aqueous solution Reag. Ph. Eur. 1085103	406, 481	100 ml	85964.180
Starch potassium iodate paper Reag. Ph. Eur. 1085101	406, 481	50 Tests	87942.150
Starch potassium iodide paper Reag. Ph. Eur. 1085106	406, 481	50 Tests	87943.150
Sulphanilic acid 0.02 mol/l in acetic acid 25% Reag. Ph. Eur. 1086203	406, 485	100 ml	87945.180
Sulphanilic acid 0.02 mol/l in acetic acid 6% Reag. Ph. Eur. 1086201	406, 485	100 ml	87944.180
Standard solution (1000 ppm SO_4) for the preparation of sulfate standard solution (10 ppm SO_4) R1 Reag.Ph.Eur. 5002801	406, 486	100 ml	88091.180
Standard solution (1000 ppm SO_4) for the preparation of sulfate standard solution (100 ppm SO_4) Reag.Ph.Eur. 5002802	406, 486	100 ml	88090.180
Sulphuric acid 1 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1086804	406, 490	1 l	85973.290
Sulfuric acid, alcoholic solution of, Reag. Ph. Eur. 1086803	406, 491	100 ml	87950.180
Thioacetamide 4% in aqueous solution Reag. Ph. Eur. 1089602	406, 503	100 ml	85975.180
Thioacetamide 4% in aqueous solution Reag. Ph. Eur. 1089602	406, 503	500 ml	85975.260
Thioacetamide 4% in aqueous solution Reag. Ph. Eur. 1089602	406, 503	1 l	85975.290
Thioacetamide Reagent I + II Reag. Ph. Eur. 1089601	406, 503	1 l	85976.290
Titan yellow 0.05% aqueous solution Reag. Ph. Eur. 1090902	406, 507	100 ml	87955.180
Titan yellow paper Reag. Ph. Eur. 1090901	406, 507	50 Tests	87954.150
Titanium trichloride solution Reag. Ph. Eur. 1091201	406, 508	100 ml	87708.180
Titanium trichloride - sulphuric acid reagent Reag. Ph. Eur. 1091202	406, 508	100 ml	87711.180
o-Tolidine 0.03% with 0.2% potassium iodide in acetic acid 6% Reag. Ph. Eur. 1123001	406, 509	500 ml	87971.260
Trichloroacetic acid (glacial) 4% in aqueous solution Reag. Ph. Eur.	406, 513	100 ml	87956.180
Phosphotungstic acid 22% in orthophosphoric acid 11% Reag. Ph. Eur. 1065200	364, 406	100 ml	87896.180
Vanadomolybdate reagent Reag. Ph. Eur. 1060100	406, 531	200 ml	87882.220
Water Reag. Ph. Eur. 1095502 carbon dioxide free	406, 537	1 l	87959.290
Water Reag. Ph. Eur. 1095500	406, 537	5 l	87957.360
Water Reag. Ph. Eur. 1095501 ammonium free	406, 537	1 l	87958.290
Water Reag. Ph. Eur. 1095503 for chromatography	406, 537	1 l	87960.290
Water Reag. Ph. Eur. 1095506 nitrate free	406, 537	1 l	87961.290
Water Reag. Ph. Eur. 1095507 particle free	406, 537	1 l	87962.290
Xylenol orange triturate 1% in potassium nitrate Reag. Ph. Eur. 1096301	406, 546	50 g	87963.150
Zinc acetate, 0.25 mol/l, buffered with ammonium acetate, pH 6.4 Reag. Ph. Eur. 1102301	406, 550	1 l	87967.290
Zinc chloride-formic acid solution Reag. Ph. Eur. 1096601	406, 551	1 l	87965.290
Zinc iodide and starch solution Reag. Ph. Eur. 1096502	406, 551	100 ml	87964.180
Zinc iodine chloride in aqueous solution Reag. Ph. Eur. 1096602	406, 551	100 ml	87726.180
Zirconyl nitrate 0.1% in hydrochloric acid 22% Reag. Ph. Eur. 1097201	406, 554	100 ml	87966.180

Primary colour solutions, Reag.Ph.Eur.

Description	Page	Pk	Cat. No.
Primary colour solutions			
Primary opalescence suspension (hydrazinium sulphate 0.5% and hexamethylenetetramine 5% in aqueous suspension) Reag. Ph. Eur.	290	100 ml	85679.180
Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$) Reag. Ph. Eur.	291	100 ml	85744.180
Primary solution yellow (1 ml solution contains 45.0 mg $FeCl_3.6H_2O$) Reag. Ph. Eur.	291	500 ml	85744.260
Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$) Reag. Ph. Eur.	290	100 ml	85745.180
Primary solution red (1 ml solution contains 59.5 mg $CoCl_2.6H_2O$) Reag. Ph. Eur.	290	500 ml	85745.260
Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$) Reag. Ph. Eur.	290	100 ml	85746.180
Primary solution blue (1 ml solution contains 62.4 mg $CuSO_4.5H_2O$) Reag. Ph. Eur.	290	500 ml	85746.260

Standard colour solutions Reag.Ph.Eur.

Description	Page	Pk	Cat. No.
Colour Reference Solution B (brown) for testing the colour intensity acc. to Ph. Eur. B1-B9 Reag. Ph. Eur.	406, 407, 467	125 ml	87169.180
Colour Reference Solution BY (brownish yellow) for testing the colour intensity acc. to Ph. Eur. BY1-BY7 Reag. Ph. Eur.	406, 407, 467	125 ml	85748.180
Colour Reference Solution GY (greenish yellow) for testing the colour intensity acc. to Ph. Eur. GY1-GY7 Reag. Ph. Eur.	406, 407, 467	125 ml	85750.180
Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7 Reag. Ph. Eur.	406, 407, 467	125 ml	85751.180
Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7 Reag. Ph. Eur.	406, 407, 467	500 ml	85751.260
Colour Reference Solution Y (yellow) for testing the colour intensity acc. to Ph. Eur. Y1-Y7 Reag. Ph. Eur.	406, 407, 467	125 ml	85749.180

Regeneration salt

CAS 7647-14-5

EINECS: 231-598-3

NaCl

M.W. 58.44 g/mol
Density: 2.17 g/cm³ (20 °C)
Boiling Pt: 1416 °C (1013 hPa)
Melting Pt: 801 °C
Storage Temperature: Ambient temperature

Regeneration salt TECHNICAL for water softening

Identification ..... Passes test

Cat. No.	Pk	Pack type
99062.4000	4 kg	Bucket (Plastic)

Resazurin

CAS 62758-13-8

EINECS: 263-718-5

$C_{12}H_6NNaO_4$

M.W. 251.17 g/mol

Resazurin, tablets for milk analysis

A standard solution of resazurin is prepared by dissolving one tablet in 50ml of sterile glass-distilled water. One ml of this solution should be added to 10ml of milk for each test. Solutions must be made freshly each day.

Cat. No.	Pk	Pack type
330884Y	100 Tab.	Aluminium tube

Residual solvent Standards

Mixture recommended by Ph. Eur./ICH Class I

NEW

Residual solvent standard recommended by Ph. Eur./ICH Class I

Cat. No.	Pk	Pack type
88206.001	1 ml	Glass ampoule
88206.015	1,5 ml	Glass ampoule

Mixture 1 recommended by Ph. Eur./ICH Class IIa

NEW

Residual solvent standard recommended by Ph. Eur./ICH Class IIa

Cat. No.	Pk	Pack type
88207.001	1 ml	Glass ampoule
88207.015	1,5 ml	Glass ampoule

Mixture 2 recommended by Ph. Eur./ICH Class IIb

NEW

Residual solvent standard recommended by Ph. Eur./ICH Class IIb

Cat. No.	Pk	Pack type
88208.001	1 ml	Glass ampoule
88208.015	1,5 ml	Glass ampoule

Mixture 3 recommended by Ph. Eur./ICH Class IIc

NEW

Residual solvent standard recommended by Ph. Eur./ICH Class IIc

Cat. No.	Pk	Pack type
88209.001	1 ml	Glass ampoule
88209.015	1,5 ml	Glass ampoule

Resorcinol

1,3-Benzenediol , 1,3-Dihydroxybenzene

Warning
H302 H319 H315 H400
P280 P273 P302+P352 P305+P351+P338 P309+P311

CAS 108-46-3

Index 604-010-00-1
EINECS: 203-585-2
UN: 2876
ADR 6.1,III
Flash Pt: 127 °C (closed cup)

$C_6H_6O_2$

M.W. 110.11 g/mol
Density: 1.272 g/cm³ (20 °C)
Boiling Pt: 281 °C (1013 hPa)
Melting Pt: 109 to 111 °C
Storage Temperature: Ambient temperature

Resorcinol AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 100.5 %	Acidity or alkalinity	Max. 0.005 meq/g
Melting point	109 to 112 °C	Ignition residue (SO_4)	Max. 0.02 %
Insolubility in water	Max. 50 ppm	Insolubility in methanol	Max. 50 ppm
Phenol	Max. 50 ppm	Pyrocatechol	Max. 50 ppm

Cat. No.	Pk	Pack type
27378.234	250 g	Plastic bottle for solids

Resorcinol Ph. Eur.

Assay (calculated on dried substance)	98.5 to 101.0 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Related substances	Max. 0.5 %
Pyrocatechol	Passes test
Loss on drying	Max. 1.0 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27379.294	1 kg	Plastic bottle for solids

Rhenium standard solution, 10,000 mg/l Re in water with nitric acid (max. 1%)

CAS 7440-15-5

EINECS: 231-124-5

Re

M.W. 186.21 g/mol
Storage Temperature: Ambient temperature

Rhenium standard solution, 10,000 mg/l Re in water with nitric acid (max. 1%) (from Re) ARISTAR® standard for ICP

Re in H_2O tr. HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455872R	100 ml	Plastic bottle

Supplied with certificate of analysis.

Rhenium standard solution, 1,000 mg/l Re in water with nitric acid (max. 1%)

CAS 7440-15-5
EINECS: 231-124-5

Re
M.W. 186.21 g/mol
Storage Temperature: Ambient temperature

Rhenium standard solution, 1,000 mg/l Re in water with nitric acid (max. 1%) (from Re) ARISTAR® standard for ICP

Re in H_2O tr. HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455862P	100 ml	Plastic bottle
455864R	500 ml	Plastic bottle

Supplied with certificate of analysis.

Rhenium standard solution, 1,000 mg/l Re in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-15-5
EINECS: 231-124-5
UN: 3264
ADR 8,III

Re
Storage Temperature: Ambient temperature

NEW Rhenium standard solution, 1,000 mg/l Re in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86703.180	100 ml	Plastic bottle
86703.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Rhodoviol®

See Polyvinyl alcohol, polymer with vinyl acetate, 25/140 ..... p.368

Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-16-6
EINECS: 231-125-0
UN: 1789
ADR 8,II

Rh
M.W. 102.91 g/mol
Storage Temperature: Ambient temperature

Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid (from Rh) ARISTAR® standard for ICP-MS

Rh in 10 % HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456862T	100 ml	Plastic bottle

Supplied with certificate of analysis.

Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid (from $RhCl_3$) ARISTAR® standard for ICP

$RhCl_3.3H_2O$ in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455882T	100 ml	Plastic bottle
455884V	500 ml	Plastic bottle

Supplied with certificate of analysis.

Rhodium standard solution, 1,000 mg/l Rh in 5% hydrochloric acid

CAS 7440-16-6
EINECS: 231-125-0

Rh
M.W. 102.9 g/mol
Storage Temperature: Ambient temperature

NEW Rhodium standard solution, 1,000 mg/l Rh in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86704.180	100 ml	Plastic bottle
86704.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

(-)-Riboflavin

See Riboflavine (Vitamin B2) p.410

Riboflavine (Vitamin B2)

Lactoflavin , Vitamin B2 , Vitamine G , (-)-Riboflavin

CAS 83-88-5
EINECS: 201-507-1

$C_{17}H_{20}N_4O_6$
M.W. 376.37 g/mol
Melting Pt: 280 °C
Storage Temperature: Ambient temperature

Riboflavine (Vitamin B2) TECHNICAL

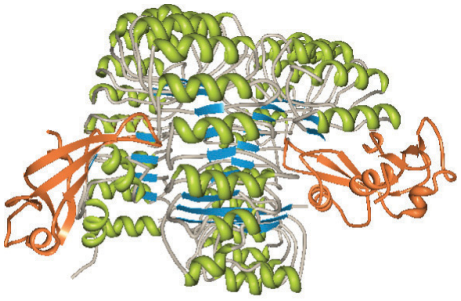
Identification ..... Passes test

Cat. No.	Pk	Pack type
27414.137	25 g	Glass bottle

Ribonuclease inhibitor (Rnase inhibitor)

Storage Temperature: -20°C

Ribonuclease inhibitor (RNase inhibitor) (from human placenta) for biotechnology



Structure of ribonuclease inhibitor-angiogenin complex. PDB 1A4Y. Papageorgiou, A.C., Shapiro, R., and Acharya, K.R. (1997) *EMBO J.* **16,** 5162–5177.

Human placental source, 40 KU/ml. RNase inhibitor is used to inhibit the activity of RNases in reaction mixtures for cDNA synthesis and *in vitro* transcription, as well as for long-term storage of valuable RNA samples. A unit of this protein will inhibit 50% of the activity of 5 ng of RNase A.

Activity @25 °C ..... 10 U/ul
DNase (endonuclease) ..... NONE
DNase (exonuclease) ..... NONE

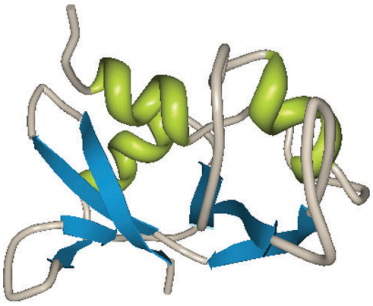
Cat. No.	Pk	Pack type
E633-2KU	2 KU	Plastic tube

Ribonuclease A (RNase A)

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 9001-99-4
EINECS: 232-646-6
Storage Temperature: -20°C

Ribonuclease A (RNase A) (from Bovine Pancreas), high purity



Structure of Ribonuclease A. PDB 2AAS. Santoro, J., Gonzalez, C., Bruix, M., Neira, J.L., Nieto, J.L., Herranz, J., Rico, M., (1993) *J. Mol. Biol.* 229: 722–734.

Activity (Kunitz, Protein @37 °C) ..... 60 u/mg
Reassay Date ..... REPORT
Solubility (1%, Water) ..... PASS

Cat. No.	Pk	Pack type
0675-250MG	250 mg	Glass bottle
0675-500MG	500 mg	Glass bottle
0675-1G	1 g	Glass bottle

Ribonuclease A (RNase A) 10 mg/ml aqueous solution

CAS 9001-99-4
EINECS: 232-646-6
Storage Temperature: 2 - 8°C

Ribonuclease A (RNase A) 10 mg/ml aqueous solution for biotechnology

Ribonuclease A is an endoribonuclease that efficiently hydrolyses RNA from tissue or bacterial cell cultures.

DNase ..... NONE
Endonuclease ..... NONE
pH @25 °C ..... REPORT

Cat. No.	Pk	Pack type
E866-1ML	1 ml	Plastic tube
E866-5ML	5 ml	Plastic bottle

D(-)-Ribose

CAS 50-69-1

EINECS: 200-059-4

$C_5H_{10}O_5$

M.W. 150.13 g/mol
Density: 0.8 g/cm³ (20 °C)
Boiling Pt: 331 °C (1013 hPa)
Melting Pt: 90 to 95 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS D(-)-Ribose, high purity

Arsenic	< 0.0002 %
Ash	0.2 %
Heavy Metals (as Pb)	< 0.001 %
Loss on Drying	3.0 %
Purity	98.0 %
Specific Rotation (4%, Water)	-21.5 to -19.7 °

Cat. No.	Pk	Pack type
0671-100G	100 g	Plastic bottle for solids

Ricinus oil, sulphated

See Turkey Red Oil p.524

Ricinus oil

See Oil of castor p.331

Ringer's solution (quarter strength)

Ringer's solution (quarter strength), tablets for milk analysis

These tablets are prepared according to the formula given in the British Ministry of Health's Memo 139/Foods. One tablet dissolved in 500 ml of glass-distilled water yields quarter strength Ringer's solution.

Cat. No.	Pk	Pack type
330902Q	100 Tab.	Aluminium tube

RIPA LYSIS buffer

VWR CHEMICALS RIPA LYSIS buffer for biotechnology

Lysis buffer for cultured mammalian cells containing SDS and deoxycholate for solubilisation of proteins from cytoplasm, membranes, and nuclei. Compatible with reporter assays, protein assays, immunoassays, and protein purification.

pH @25 °C	7,4 - 7,6
Tris Titration	48 - 55 mM

Cat. No.	Pk	Pack type
N653-100ML	100 ml	Plastic bottle

Rosaniline hydrochloride

See Basic Fuchsin p.192

Rose Bengal Chloramphenical Agar

See Microbiology

Rosin

See Colophony p.117

Rosin, gum

See Colophony p.117

Rubidium standard solution, 10,000 mg/l Rb in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-17-7
EINECS: 231-126-6
UN: 3264
ADR 8,III

Rb
M.W. 85.47 g/mol
Storage Temperature: Ambient temperature

Rubidium standard solution, 10,000 mg/l Rb in dil. nitric acid (from $RbNO_3$) ARISTAR® standard for ICP

$RbNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455912Y	100 ml	Plastic bottle

Supplied with certificate of analysis.

Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-17-7
EINECS: 231-126-6
UN: 3264
ADR 8,III

Rb
M.W. 85.47 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid (from $RbNO_3$) ARISTAR® standard for ICP

$RbNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455902G	100 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86702.180	100 ml	Plastic bottle
86702.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Rubidium chloride

CAS 7791-11-9

EINECS: 232-240-9

RbCl

M.W. 120.92 g/mol
Density: 2.8 g/cm³ (20 °C)
Boiling Pt: 1390 °C (1013 hPa)
Melting Pt: 715 °C
Storage Temperature: Ambient temperature

Rubidium chloride for biotechnology

Calcium	< 0.01 %
Insolubles	0.01 %
Iron	<0.01 %
Lead	<0.01 %
Magnesium	< 0.01 %
Purity	99.0 %
Total Alkali (Cs, K, Li, Na)	0.90 %

Cat. No.	Pk	Pack type
0632-25G	25 g	Plastic bottle for solids
0632-50G	50 g	Plastic bottle for solids

Ruthenium standard solution, 10,000 mg/l Ru in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-18-8

EINECS: 231-127-1
UN: 1789
ADR 8,II

Ru

M.W. 101.07 g/mol
Storage Temperature: Ambient temperature

Ruthenium standard solution, 10,000 mg/l Ru in 10% hydrochloric acid (from $RuCl_3$) ARISTAR® standard for ICP

$RhCl_3.3H_2O$ in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455932M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Ruthenium standard solution, 1,000 mg/l Ru in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-18-8

EINECS: 231-127-1
UN: 1789
ADR 8,II

Ru

M.W. 101.07 g/mol
Storage Temperature: Ambient temperature

Ruthenium standard solution, 1,000 mg/l Ru in 10% hydrochloric acid (from $RuCl_3$) ARISTAR® standard for ICP

$RhCl_3.3H_2O$ in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455922K	100 ml	Plastic bottle
455924M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Ruthenium standard solution, 1,000 mg/l Ru in 5% hydrochloric acid

CAS 7440-18-8

EINECS: 231-127-1
UN: 1789
ADR 8,II

Ru

M.W. 101.07 g/mol
Storage Temperature: Ambient temperature

NEW

Ruthenium standard solution, 1,000 mg/l Ru in 5% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86705.180	100 ml	Plastic bottle
86705.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sabouraud broth

See Microbiology

Sabouraud media

See Microbiology

D(+)-Saccharose

See D(+)-Sucrose p.484

Safemount mounting media

Danger
H226 H304 H413
EUH066
P210 P243 P280 P273 P301+P310 P331
UN: 3295
ADR 3,III
Storage Temperature: Ambient temperature

NEW Safemount mounting media Q PATH®

Mounting media compatible with Safesolv for histological use.

IVD

Cat. No.	Pk	Pack type
00647520.	500 ml	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Safety bottle containers, Safepak®

PP

For the safe transport and storage of hazardous chemicals. These vessels contain chemical spillages and being translucent they allow the examination of the condition and contents of the inner container without opening. Safepak® are designed to be used with BDH branded glass and Safebreak bottles, ranging from 100 ml to 1000 ml bottles.

- Contains bottle spillages
- For safe storage and transportation of chemicals
- Good temperature resistance

Colour	For	Pk	Cat. No.
Natural	100 ml bottles	6	332491D
Natural	500 ml bottles	3	332493F
Natural	1000 ml bottles	3	332497J

Safesolv (Isoparaffine)

Danger
H226 H304 H413
EUH066
P210 P243 P280 P273 P301+P310 P331
UN: 3295
ADR 3,III
Storage Temperature: Ambient temperature

NEW Safesolv Q Path®

Non-toxic biodegradable replacement for xylene or toluene.

IVD

Cat. No.	Pk	Pack type
00699464.	5 l	Plastic container

IVD registered. Instructions for use on vwr.com- just search for the product.

Saffron

CAS 84604-17-1
EINECS: 283-295-0

NEW Saffron Powder Q PATH®

Dye which can be used for HES histological staining. This product is not IVD registered.

Cat. No.	Pk	Pack type
11507737.	10 g	Plastic bag

Saffron, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27481.105	5 g	Glass bottle

NEW Saffron strands Q PATH®

Dye which can be used for HES histological staining. This product is not IVD registered.

Cat. No.	Pk	Pack type
11507736.	10 g	Plastic bottle

Saffron alcoholic solution

Danger
H225
P210 P243 P280
UN: 1170
ADR 3,II
Storage Temperature: Ambient temperature

NEW Saffron alcoholic solution Q PATH® for microscopy

Ready to use Saffon solution for HES histological staining in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047028.	6 x 450 ml	Pouch

IVD registered. Instructions for use on vwr.com- just search for the product.

Safranin solution

NEW Safranin solution

Cat. No.	Pk	Pack type
911540ZA	1 l	Plastic bottle

Salicylic acid

o-Hydroxybenzoic acid , 2-Hydroxybenzoic acid

Danger
H302 H318
P280 P305+P351+P338 P309+P310

CAS 69-72-7
EINECS: 200-712-3
Flash Pt: 157 °C

(HO)$C_6H_4CO_2H$
M.W. 138.12 g/mol
Density: 1.443 g/cm³ (20 °C)
Boiling Pt: 336 °C (1013 hPa)
Melting Pt: 157 to 159 °C
Storage Temperature: Ambient temperature

Salicylic acid AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Substances coloured by H_2SO_4	Passes test
Melting point	158 to 161 °C	Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 0.02 %	Insolubility in methanol	Max. 50 ppm
Insolubility in NH_3 4 N	Max. 50 ppm	SO_4 (Sulphate)	Max. 0.025 %
Fe (Iron)	Max. 2 ppm	Water	Max. 0.15 %

Cat. No.	Pk	Pack type
20657.232	250 g	Plastic bottle for solids

Salicylic acid, powder Ph. Eur.

Assay (calculated on dried substance)	99.0 to 100.5 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Related substances	Passes test
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 200 ppm
Heavy metals (as Pb)	Max. 20 ppm
Loss on drying	Max. 0.5 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20662.296	1 kg	Plastic bottle for solids
20662.467	25 kg	Bucket (Plastic)

Salicylic acid GPR RECTAPUR®

Assay	Min. 99.0 %
Melting point	158 to 161 °C
Heavy metals (as Pb)	Max. 50 ppm
Ignition residue (SO_4)	Max. 0.1 %

Cat. No.	Pk	Pack type
20655.292	1 kg	Plastic bottle for solids

Salicylic acid TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
20659.295	1 kg	Plastic bottle for solids

Salt Solution acc. BS2011 part 2.1 kb (artificial sea water)

Salt Solution acc. BS2011 part 2.1 kb (artificial sea water)

Composition:
Sodium Chloride 26.5 g
Magnesium Chloride Anhy. 2.4 g
Magnesium Sulphate $7H_2O$ 6.75 g
Calcium Chloride $2H_2O$ 1.46 g
Potassium Chloride 0.73 g
Sodium Bicarbonate 0.2 g
Sodium Bromide 0.28 g
Deionised water to 1 litre

Cat. No.	Pk	Pack type
79789LH	20 l	Plastic drum

Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-19-9
EINECS: 231-128-7
UN: 3264
ADR 8,III

Sm
M.W. 150.36 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid (from Sm_2O_3) ARISTAR® standard for ICP

Sm_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455942X	100 ml	Plastic bottle
455944Q	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86711.180	100 ml	Plastic bottle
86711.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sand Fontainebleau

CAS 7631-86-9
EINECS: 231-545-4

SiO_2
M.W. 60.08 g/mol
Storage Temperature: Ambient temperature

Sand, Fontainebleau TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27460.295	1 kg	Plastic bottle for solids
27460.364	5 kg	Bucket (Plastic)
27460.460	25 kg	Bucket (Plastic)

Sand (sea sand)

CAS 7631-86-9
EINECS: 231-545-4

SiO_2
M.W. 60.08 g/mol
Density: 2.66 g/cm³ (20 °C)
Boiling Pt: 2230 °C (1013 hPa)
Melting Pt: 1710 °C
Storage Temperature: Ambient temperature

Sand (sea sand) TECHNICAL, washed with sulphuric acid

Solubility in acid ..... Max. 1 %

Cat. No.	Pk	Pack type
27461.298	1 kg	Plastic bottle for solids
27461.360	5 kg	Bucket (Plastic)
27461.460	25 kg	Bucket (Plastic)

Saponin

CAS 8047-15-2
EINECS: 232-462-6
Density: 1.015 to 1.02 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Saponin GPR RECTAPUR®

Foam test (5 %; water) ..... Min. 4
Ignition residue (SO_4) ..... Max. 10 %
Insolubility in water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
27534.187	100 g	Plastic bottle for solids

Saponin, white for haemolysis

Assay of sapogenin (on dried material) ..... Min 9 %
Loss on drying (150 °C) ..... Max 10 %

Cat. No.	Pk	Pack type
436504N	500 g	Plastic bottle

Saponin

Identification ..... Passes test
pH (5 %) ..... 3.5 to 5.5
Surface tension (20 °C; 0.1 %; water) ..... 30 to 60 mN/m

Cat. No.	Pk	Pack type
440914Y	500 g	Plastic bottle for solids
44091NE	5 kg	Bucket (Plastic)

Saybolt Colour Standard ((-15) - 25)

Storage Temperature: Ambient temperature

NEW

Saybolt Colour Standard -15

Cat. No.	Pk	Pack type
84805.180	100 ml	Glass bottle
84805.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard 0

Cat. No.	Pk	Pack type
84804.180	100 ml	Glass bottle
84804.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard +12

Cat. No.	Pk	Pack type
84803.180	100 ml	Glass bottle
84803.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard +15

Cat. No.	Pk	Pack type
84802.180	100 ml	Glass bottle
84802.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard +19

Cat. No.	Pk	Pack type
84801.180	100 ml	Glass bottle
84801.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard +25

Cat. No.	Pk	Pack type
84800.180	100 ml	Glass bottle
84800.260	500 ml	Glass bottle

NEW

Saybolt Colour Standard +30

Cat. No.	Pk	Pack type
84799.180	100 ml	Glass bottle
84799.260	500 ml	Glass bottle

Scandium standard solution, 10,000 mg/l Sc in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-20-2
EINECS: 231-129-2
UN: 3264
ADR 8,III

Sc
M.W. 44.96 g/mol
Storage Temperature: Ambient temperature

Scandium standard solution, 10,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP

Sc_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455972U	100 ml	Plastic bottle
455974W	500 ml	Plastic bottle

Supplied with certificate of analysis.

Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-20-2
EINECS: 231-129-2
UN: 3264
ADR 8,III

Sc
M.W. 44.96 g/mol
Storage Temperature: Ambient temperature

Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid (from Sc) ARISTAR® standard for ICP-MS

Sc in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456872V	100 ml	Plastic bottle

Supplied with certificate of analysis.

Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP

Sc_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455962S	100 ml	Plastic bottle
455964U	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86708.180	100 ml	Plastic bottle
86708.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Schiff's reagent (Feulgen stain)

Density: 1.1 g/cm³ (20 °C)

Schiff's reagent (Feulgen stain) for analysis of aldehydes

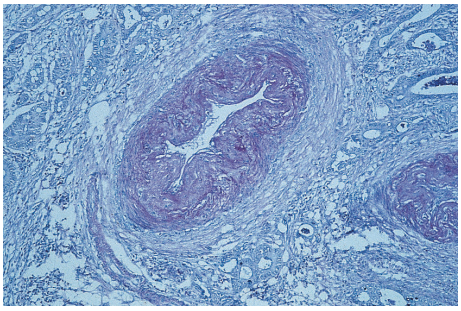
Remark: In the particular case of formaldehyde, use an ethyl alcohol solution so that the final solution contains about 50% of ethyl alcohol.

Density (20/4)..... 1.005 to 1.015

Cat. No.	Pk	Pack type
30969.261	500 ml	Glass bottle

Schiff's reagent (Feulgen stain) for staining acc. to Feulgen

IVD



Identity (colour reaction)..... Passes test
Suitability for microscopy..... Passes test
Suitability for electrophoresis..... Passes test

Cat. No.	Pk	Pack type
351204L	500 ml	Glass bottle

Technical data sheet and instructions available on vwr.com

Schiff´s staining solution

Storage Temperature: Ambient temperature

NEW Schiff´s staining solution Q PATH® for microscopy

Ready to use Schiffs solution for histological staining in easy to use and safe PET bottle.

IVD

Cat. No.	Pk	Pack type
10047025.	6 x 450 ml	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Shorr staining solution

Danger
H225
P210 P243 P280
UN: 1170
ADR 3,II
Storage Temperature: Ambient temperature

NEW Shorr staining solution Q PATH® for microscopy

Ready to use solution for specific staining Harris-Shorr in easy to use and safe pouch.

IVD

Cat. No.	Pk	Pack type
10047013.	6 x 450 ml	Pouch
10047113.	2,5 l	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Schweitzer's reagent (Tetraamminecopper(II) dihydroxide solution, Shirley's solution)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 17500-49-1
EINECS: 241-508-4
UN: 3266
ADR 8,III

$CuH_{14}N_4O_2$
M.W. 165.68 g/mol

Schweitzer's reagent (Tetraamminecopper(II) dihydroxide solution, Shirley's solution) for cellulose dissolution

Ammonia ..... 195.0 to 205.0 g/l
Copper ..... 14.90 to 15.01 g/l
Nitrous acid ..... Max. 0.5 g/l

Cat. No.	Pk	Pack type
191913S	500 ml	Glass bottle

Schweitzer's reagent (Tetraamminecopper(II) dihydroxide solution, Shirley's solution) for cellulose dissolution

Cat. No.	Pk	Pack type
31115.267	500 ml	Glass bottle

Scintillation cocktail for aqueous samples

UN: 1992
ADR 3,III

FluoranSafe 2 Scintran®

A general purpose, biodegradable scintillation cocktail for use with aqueous samples. This cocktail has high sample holding capacities but still exhibits good counting efficiencies.

Cat. No.	Pk	Pack type
145166V	4 l	Plastic bottle

SDS

See Sodium dodecyl sulphate (SDS) p.439

Sea sand

See Sand (sea sand) p.415

Sebacic acid di(2-ethylhexyl) ester

See Bis(2-ethylhexyl) sebacate p.67

Selenite cystimer groth

See Microbiology

Selenium

Danger
H301+H331 H373 H413
P260 P273 P304+P340 P309+P310

CAS 7782-49-2
Index 034-001-00-2
EINECS: 231-957-4
UN: 3283
ADR 6.1,III

Restricted to professional users.

Se
M.W. 78.96 g/mol
Density: 4.28 g/cm³ (20 °C)
Boiling Pt: ~ 685 °C (1013 hPa)
Melting Pt: 217 °C
Storage Temperature: Ambient temperature

Selenium 99.99%, granules analytical reagent

Identification ..... Passes test

Cat. No.	Pk	Pack type
27599.124	10 g	Plastic bottle for solids

Selenium standard solution, 10,000 mg/l Se in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7782-49-2
EINECS: 231-957-4
UN: 3264
ADR 8,III

Se
M.W. 78.96 g/mol
Storage Temperature: Ambient temperature

Selenium standard solution, 10,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP

Se in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455992B	100 ml	Plastic bottle

Supplied with certificate of analysis.

Selenium standard solution, 1,000 mg/l Se in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7782-49-2
EINECS: 231-957-4
UN: 3264
ADR 8,III

Se
M.W. 78.96 g/mol
Density: 1.01 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Selenium standard solution, 1,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP-MS

Se in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456882A	100 ml	Plastic bottle

Supplied with certificate of analysis.

Selenium standard solution, 1,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP

Se in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
455982W	100 ml	Plastic bottle
455984B	500 ml	Plastic bottle

Supplied with certificate of analysis.

Selenium standard solution, 1,000 mg/l Se in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86709.180	100 ml	Plastic bottle
86709.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Selenium dioxide

Danger
H301+H331 H373 H410
P260 P273 P304+P340 P309+P310

CAS 7446-08-4
Index 034-002-00-8
EINECS: 231-194-7
UN: 3283
ADR 6.1,II

Restricted to professional users.

SeO_2
M.W. 110.96 g/mol
Density: 3.95 g/cm³ (20 °C)
Melting Pt: 315 °C
Storage Temperature: Ambient temperature

Selenium dioxide GPR RECTAPUR®, sublimated

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
21414.230	250 g	Plastic bottle for solids

Serva Blue G

See Coomassie® Brilliant Blue G-250 ..... p.121

Serva Blue R

See Coomassie® Brilliant Blue R-250 ..... p.121

Shirley's reagent

See Schweitzer's reagent (Tetraamminecopper(II) dihydroxide solution, Shirley's solution) p.417

Silica Analyser Solution No. 1 (metabisulphite/metol) for Kent Model EIL 58F Silica Analyser and Silica Monitor Reduction solution for Seres FG 504B Silicameter

Warning
H319
EUH031
P280 P305+P351+P338

Silica Analyser Solution No. 1 (metabisulphite/metol) for Kent Model EIL 58F Silica Analyser and Silica Monitor Reduction solution for Seres FG 504B Silicameter

Cat. No.	Pk	Pack type
160563U	5 l	Plastic container

Silica monitor reagent (sodium molybdate) for Seres FG 504B Silicameter

Contents per litre: 63 g Sodium molybdate AnalaR NORMAPUR

Cat. No.	Pk	Pack type
161277V	5 l	Plastic container

Silica gel

CAS 63231-67-4

SiO_2
M.W. 60.08 g/mol
Boiling Pt: 2230 °C (1013 hPa)
Melting Pt: 1710 °C
Storage Temperature: Ambient temperature

Silica gel 40-63 µm for flash chromatography

pH (20°C; 5 %) ..... 6.0 to 7.6
Particle size (< 40 µm) ..... Max. 10 %
Particle size (> 63 µm) ..... Max. 10 %

Cat. No.	Pk	Pack type
154425P	1 kg	Plastic bottle for solids

Silica gel NORMASIL 60® 40-63 µm

pH (20°C; 10 %) ..... 6.5 to 7.5
Loss on drying (150°C) ..... Max. 12 %
Particle size d10 ..... 25 to 45 µm
Particle size d50 ..... 50 to 70 µm
Particle size d90 ..... 90 to 115 µm

Cat. No.	Pk	Pack type
27623.323	2,5 kg	Bucket (Plastic)
27623.460	25 kg	Bucket (Plastic)

Silica gel, powder TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
24973.297	1 kg	Bucket (Plastic)

Silica gel, granules TECHNICAL

Moisture absorber, neutral, not deliquescing, not corrosive. It can be regenerated by heating at about 150 °C

Apparent density ..... 0.700 to 0.750
Particle size ..... 2 to 5 mm
Regeneration temperature ..... Min. 150°C
Loss on drying (160°C) ..... Max. 2 %
Water-absorption capacity(25°C;100 % RH) ..... 23 to 36 %

Cat. No.	Pk	Pack type
27613.294	1 kg	Plastic bottle for solids

Silica gel Davison 923

CAS 63231-67-4

SiO_2
M.W. 60.08 g/mol
Storage Temperature: Ambient temperature

Silica gel Davison 923 suitable for use in the testing of petroleum products by IP and ASTM methods

BET surface area ..... 430 to 530 m^2/g
pH (5 %) ..... 5.5 to 7.0
Volatile matter ..... Max. 10.0 %
Fe (Iron) ..... Max. 50 ppm
Particle size (> 60 mesh) ..... Max. 0 %
Particle size (> 80 mesh) ..... Max. 1.2 %
Particle size (> 100 mesh) ..... Max. 5.0 %
Particle size (< 200 mesh) ..... Max. 15.0 %

Cat. No.	Pk	Pack type
15173LX	1 kg	Plastic bottle for solids

Silica gel with moisture indicator ammonium iron (III) sulphate (orange to transparent)

CAS 63231-67-4

SiO_2
M.W. 60.08 g/mol
Storage Temperature: Ambient temperature

Silica gel, granules Chameleon® C 2,5-6 mm drying agent

This product adsorbs water vapour so maintaining a dry environment for your products. When the gel's adsorption capacity is exhausted the colour changes from orange to colourless.
The product can be regenerated back to an orange colour by heating in a drying oven at 120-140°C for approximately 3 hours and then re-used. It is suitable for numerous drying applications although it is not recommended for strongly acidic or strongly alkaline compounds.

Colour change ..... Passes test
Particle size ..... 2.0 to 6.0 mm
pH (20°C; 5 %) ..... 2.0 to 5.0
Loss on drying (140°C) ..... Max. 2.0 %
Water-adsorption capacity (23°C;50 % RH) ..... Min. 23.0 %

Cat. No.	Pk	Pack type
83000.290	1 kg	Plastic bottle for solids
83000.360	5 kg	Bucket (Plastic)

Silica gel, granules Chameleon® C 2-6 mm drying agent

This product adsorbs water vapour so maintaining a dry environment for your products. When the gel's adsorption capacity is exhausted the colour changes from orange to colourless.
The product can be regenerated back to an orange colour by heating in a drying oven at 120-140C for approximately 3 hours and then re-used. It is suitable for numerous drying applications although it is not recommended for strongly acidic or strongly alkaline compounds.

Colour change ..... Passes test
Particle size ..... 2.0 to 6.0 mm
pH (20°C; 5 %) ..... 2.0 to 5.0
Loss on drying (140°C) ..... Max. 2.0 %
Water-adsorption capacity (23°C;50 % RH) ..... Min. 23.0 %

Cat. No.	Pk	Pack type
87185.2500	500	Plastic bag

Supplied as 500 x 5g sachets

Silica gel, granules Chameleon® C 1-3 mm drying agent

This product adsorbs water vapour so maintaining a dry environment for your products. When the gel's adsorption capacity is exhausted the colour changes from orange to colourless.
The product can be regenerated back to an orange colour by heating in a drying oven at 120-140°C for approximately 3 hours and then re-used. It is suitable for numerous drying applications although it is not recommended for strongly acidic or strongly alkaline compounds.

Colour change ..... Passes test
Particle size ..... 1.0 to 3.0 mm
pH (20°C; 5 %) ..... 2.0 to 5.0
Loss on drying (140°C) ..... Max. 2.0 %
Water-adsorption capacity (23°C;50 % RH) ..... Min. 23.0 %

Cat. No.	Pk	Pack type
83001.260	500 g	Plastic bottle for solids
83001.290	1 kg	Plastic bottle for solids
83001.360	5 kg	Bucket (Plastic)

Silicic acid sodium salt

See Sodium silicate p.456

Silicium dioxide

See Quartz p.401

Silicium (IV) oxide

See Quartz p.401

Silicon standard solution, 10,000 mg/l Si in water with hydrofluoric acid (max. 1%)

CAS 7440-21-3
EINECS: 231-130-8

Si
M.W. 28.09 g/mol
Storage Temperature: Ambient temperature

Silicon standard solution, 10,000 mg/l Si in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2SiF_6$) ARISTAR® standard for ICP

$(NH_4)_2$ SiF_6 in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456012Y	100 ml	Plastic bottle

Supplied with certificate of analysis.

Silicon standard solution, 1,000 mg/l Si in water with hydrofluoric acid (max. 1%)

CAS 7440-21-3
EINECS: 231-130-8

Si
M.W. 28.09 g/mol
Storage Temperature: Ambient temperature

Silicon standard solution, 1,000 mg/l Si in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2SiF_6$) ARISTAR® standard for ICP

$(NH_4)_2$ SiF_6 in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456002G	100 ml	Plastic bottle
456004Y	500 ml	Plastic bottle

Supplied with certificate of analysis.

Silicon standard solution, 1,000 mg/l Si in water

CAS 7440-21-3
EINECS: 231-130-8

Si
M.W. 28.09 g/mol
Density: 1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

NEW Silicon standard solution, 1,000 mg/l Si in water AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86710.180	100 ml	Plastic bottle
86710.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Silicon carbide

See Carborundum..... p.97

Silicon dioxide

See Quartz..... p.401

Silicone - Fluids DOW CORNING®

Silicone fluids consist of long chain dimethyl siloxanes, methyl phenyl siloxanes or fluorosilicones. They are available in viscosities ranging from 0.65 to 1,000,000 centistokes. Most of these fluids exhibit many desirable properties such as, heat stability, oxidation resistance, little change in viscosity with temperature and high flash points. They are soluble in many organic solvents. By virtue of these and many other properties they find widespread application.
FEATURES :
- Water-clear
- Inert
- Excellent water repellency
- Good dielectric properties
- Low surface tension
- Low toxicity
- Low vapour pressure
- Essentially odourless
- Soluble in a wide range of solvents

APPLICATIONS :
- Heat transfer fluids for oil baths
- Dielectric fluids
- Lubricants
- Release agents
- Polish/cosmetic additives
- Mechanical fluid
- Foam preventative
- Plastic additive
- Surface-active material

A range of silicone fluids recommended for use in baths. Such fluids possess excellent heat transfer characteristics and cover a large temperature range from -10°C to +288°C. Low in toxicity, inert and long lasting due to their low volatility.
Note: Harmful vapours may be given off at elevated temperatures. It is advisable to use this material in a fume cupboard at temperatures greater than 140°C

Dow Corning® Xiameter PMX 200/10 cS silicone fluid

Clear colourless low-volatility polydimethylsiloxane

Cat. No.	Pk	Pack type
630044R	400 g	Plastic bottle
630046T	4 kg	Plastic bottle
630047U	20 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/20 cS silicone fluid

Clear colourless low-volatility polydimethylsiloxane

Cat. No.	Pk	Pack type
630054T	500 g	Plastic bottle
630056V	5 kg	Plastic bottle
630057W	20 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/50 cS silicone fluid

Cat. No.	Pk	Pack type
630066A	5 kg	Plastic bottle
630067B	20 kg	Plastic container
630068C	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/100 cS silicone fluid

Cat. No.	Pk	Pack type
630074A	500 g	Plastic bottle
630076C	5 kg	Plastic bottle
630077D	25 kg	Plastic container
630078E	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/200 cS silicone fluid

Clear colourless low-volatility polydimethylsiloxane

Cat. No.	Pk	Pack type
630084C	500 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/350 cS silicone fluid

Cat. No.	Pk	Pack type
630094E	500 g	Plastic bottle
630096G	5 kg	Plastic bottle
630097H	25 kg	Plastic container
630098Y	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/500 cS silicone fluid

Clear colourless low-volatility polydimethylsiloxane

Cat. No.	Pk	Pack type
630104M	500 g	Plastic bottle
630108Q	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® Xiameter PMX 200/12500 cS silicone fluid

Clear colourless low-volatility polydimethylsiloxane

Cat. No.	Pk	Pack type
630126S	5 kg	Plastic bottle
630127T	25 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® 210H/100 cS silicone fluid high temperature, high shear, low volatility silicone fluid

Brown, fairly clear polydimethylsiloxane

Contains an oxidation inhibitor. Highly recommended for benchtop oil baths and manufacturing heat transfer where an upper temperature limit of 288°C is required

Cat. No.	Pk	Pack type
630184F	500 g	Plastic bottle
630186H	5 kg	Plastic bottle
630185G	20 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® FS 1265/10,000 cS chemically inert fluid

Clear low volatility fluorosilicone especially suitable for foam control in chlorinated solvents

Cat. No.	Pk	Pack type
630267H	5 kg	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - Fluids

Silicone oil 47 V 50 RHODORSIL®

Viscosity (25°C) ..... 47.5 to 52.5 cSt
Volatile matter ..... Max. 1.0 %

Cat. No.	Pk	Pack type
6678.1000	1 l	Glass bottle

Silicone oil 47 V 350

Recommended working temperature..... -5 to +200°C
Viscosity (25°C) ..... 330 to 370 cSt

Cat. No.	Pk	Pack type
83851.290	1 l	Plastic bottle
83851.360	5 l	Plastic bottle

Silicone oil 47 V 1000 RHODORSIL®

Recommended working temperature..... -5 to +200°C
Viscosity (25°C) ..... 900 to 1100 cSt

Cat. No.	Pk	Pack type
27263.237	250 ml	Glass bottle

NEW Silicone oil 20 cSt (25°C, Polydimethylsiloxane)

Cat. No.	Pk	Pack type
84543.290	1 l	Plastic bottle
84543.360	5 l	Plastic bottle

NEW Silicone oil 47 V 100

Cat. No.	Pk	Pack type
84542.290	1 l	Plastic bottle
84542.460	25 l	Plastic drum

NEW Silicone oil 500 cSt (25°C, Polydimethylsiloxane)

Cat. No.	Pk	Pack type
84539.290	1 l	Plastic bottle

Silicone oil TECHNICAL for oil baths

Usable between 100 and 200 °C

Identification ..... Passes test

Cat. No.	Pk	Pack type
24610.363	5 l	Plastic container

NEW

Silicone oil BRB 550 FLUID

Cat. No.	Pk	Pack type
84540.290	1 l	Plastic bottle

Silicone - release agents DOW CORNING

Silicone release agents are inert low toxicity products that provide durable parting films which effectively release and lubricate plastics, adhesives, elastomers and other difficult to release products. They are available in the form of emulsions, compounds or solutions to suit almost every application.
Features :
- Excellent release properties
- Heat stable
- Produce good surface finish
- Chemically inert
- Non-carbonising
- Suitable for plastics and rubbers
- No build-up on mould

Applications :
- Plastics and rubber moulding
- Metal casting
- Prevention of adhesive build-up
- Releases residues from cutting tools
- Conveyor belts handling sticky materials

Dow Corning® 7 Release, compound long lasting, heat stable release agent

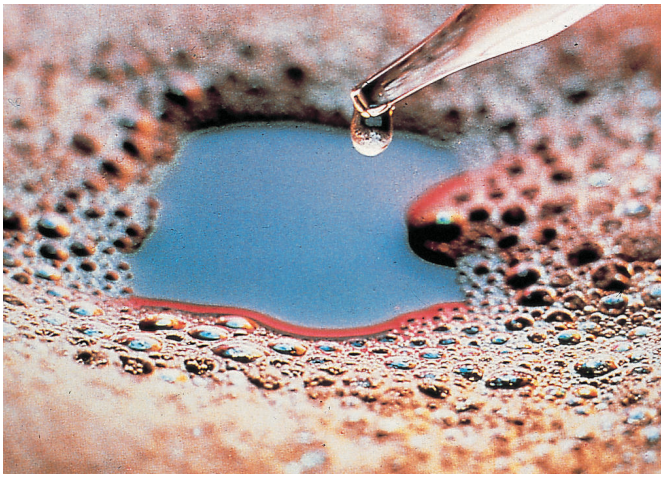
Light grey translucent jelly-like, silica-filled polydimethylsiloxane

Used for a variety of applications including plastics, rubbers and adhesives.

Cat. No.	Pk	Pack type
632021S	100 g	Aluminium tube

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - Antifoams DOW CORNING®



Silicone antifoams, available in the form of fluids, emulsions or compounds, can be used to control even resistant foams without significantly altering or contaminating products. They can be used in both aqueous and non-aqueous situations throughout industry.
FEATURES :
- Heat stable
- Effective at low levels
- Low toxicity
- Odourless and tasteless
- Inert of micro-organisms
- Fast acting

Antifoam silicone (100% active compound) Dow Corning® 1500 for use in aqueous, textile, chemical and industrial foam control

Translucent white pourable liquid, polydimethylsiloxane compound. Xiameter® ACP-1500 antifoam compound

Antifoam for use as a component during the manufacture of articles which in their finished state are intended to be brought and/or are brought temporarily or permanently in contact with foodstuffs.

Cat. No.	Pk	Pack type
632484W	500 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Antifoam silicone (10% active compound) Dow Corning® 1510 for use in aqueous, textile, chemical and industrial foam control

10% emulsion of a polydimethylsiloxane fluid, silica filler and non-ionic emulsifier

Antifoam for use as a component during the manufacture of articles which in their finished state are intended to be brought and/or are brought temporarily or permanently in contact with foodstuffs.
Easy to use foam control agent that is effective in hot or cold systems.

Cat. No.	Pk	Pack type
632156J	5 kg	Plastic bottle
632157K	25 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Antifoam silicone (10% active compound) Dow Corning® RD for use in aqueous, textile, chemical and industrial foam control

Cat. No.	Pk	Pack type
632134D	500 g	Plastic bottle
632136F	5 kg	Plastic bottle
632137G	25 kg	Plastic container
632138H	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

NEW Antifoam silicone (15% active compound) Snapsil FD10 for use in aqueous, textile, chemical and industrial foam control

Cat. No.	Pk	Pack type
84537.290	1 l	Plastic bottle

NEW Antifoam silicone (30% active compound) Snapsil RE20 for use in aqueous, textile, chemical and industrial foam control

Cat. No.	Pk	Pack type
84538.290	1 l	Plastic bottle

Silicone - Water repellent treatments DOW CORNING®

Water repellents can be used in many applications where resistance to or repulsion of water is required. Additionally these treatments can make powders flow more easily and delay the solubility of others.

FEATURES :
- High water repelency
- Can be diluted
- Air drying or heat curable
- Long lasting
- Low toxicity films formed

APPLICATIONS :
- Glassware and ceramics
- Textiles
- Plastics
- Permeablility
- Delayed solubility
- Powder coating
- Production of non-stick surfaces

Dow Corning® Repelcote VS water repellent

10% emulsion of a polydimethylsiloxane fluid, silica filler and non-ionic emulsifier

This material becomes crystalline below 18°C and may require warming prior to use.

Functionality..... Passes test

Cat. No.	Pk	Pack type
632474U	500 ml	Glass bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

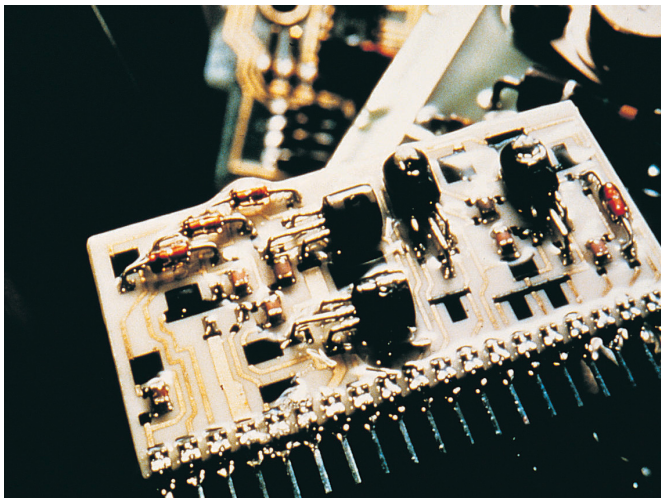
Dow Corning® 1107 water repellent and powder treatment

Clear methylhydrogenpolysiloxane fluid

Cat. No.	Pk	Pack type
632194P	500 g	Plastic bottle
632196R	5 kg	Plastic bottle
632198T	200 kg	Plastic container

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - Electrical products DOW CORNING®



Electrical products form a diverse group that can impart water repellency, electrical insulation and thermal conductivity depending upon the requirements. The group includes gels, resins and greases. They can be used in applications such as coating electric coils.

FEATURES :
- Water repellent
- Wide usable temperature range
- Compatible with most surfaces
- Long service life
- Good dielectric properties

APPLICATIONS :
- Waterproofing
- Electrical insulation
- Corrosion protection
- Abrasion protection
- Heat dissipation

Dow Corning® 4 Compound dielectric insulator

Grey translucent silicone compound

Extremely versatile heat and moisture resistant compound for use in electronics, telecommunications and transportation including road, rail and aircraft.

Cat. No.	Pk	Pack type
632222C	100 g	Aluminium tube

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® 1-2577 Conformal Coating

Transparant straw colour resin of 75% silicone in toluene, providing a tack free, protective, thin film coating in 15 minutes at room temperature.
Offers thick film circuitry and remains flexible between -65°C to 200°C with typical applications for PCB's and porous ceramics.
Viscosity approx. 1000 cS.

Cat. No.	Pk	Pack type
632364P	500 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - One part elastomers

One part silicone rubbers cure on exposure to moist air at room temperature to form strong durable rubbers that have hundreds of applications in all industries whenever encapsulation, sealing or adhesive properties are required.
FEATURES :
- Room temperature cure
- Wide usable temperature range
- Water repellen
- Will not harden
- Adheres to most surfaces
- Good dielectric properties
- Easy to repair

APPLICATIONS :
- Sealing equipment
- Waterproofing
- Forming gaskets
- Repairing cracks
- Seating electrodes
- Sealing pipelines
- Potting electrical equipment

Dow Corning® 734 Flowable adhesive sealant white

Free flowing. Cures at room temperature by reaction with atmospheric moisture, giving off acetic acid. Adheres to most surfaces. Serviceable from -65° to 232°C

Cat. No.	Pk	Pack type
634282W	90 ml	Aluminium tube

This product is not available in all countries. Please check with your local VWR International office or supplier.

Dow Corning® 3145 Mil-A-46146 Adhesive Sealant Clear

Non-slump sealant. Cures at room temperature by reaction with atmospheric moisture without corrosive by-products. Adheres to most surfaces. Serviceable from -65° to 250°C

Cat. No.	Pk	Pack type
634323X	90 ml	Aluminium tube

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - Two part elastomers DOW CORNING®

FEATURES :
- Wide usable temperature range
- High strength
- No shrinkage on cure
- Deep section cure
- Can be heat accelerated
- Long pot life
- Excellent release characteristics

APPLICATIONS :
- Flexible moulds
- Damping and mounting blocks
- Fabric and belt coating
- Insulation
- Encapsulation
- Caulking and sealing
- Coating electronic components

SYLGARD® 184 Elastomer Kit general purpose encapsulant

Two components forming a clear colourless flexible silicone elastomer at room temperature.
Serviceable temperature between -55°C to 200°C
Viscosity at 25°C: Approx. 5000 mPa.s

Cat. No.	Pk	Pack type
634165S	1,1 kg	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone - Grease

A range of silicones and non-silicones that can be used to maintain and lubricate all types of glass, plastic, rubber and metal components under even the most demanding conditions.
FEATURES :
- Wide temperature range
- Inert
- Long life
- Resistant to corrosive chemicals
- Do not effect rubber or plastics
- Resistant to oxidation

APPLICATIONS :
- Lubrication of plastic parts
- Lubrication of taps and 'o' rings
- Corrosion protection
- Lubricants/sealants for vacuum systems
- Lubrication in high or low temperature environments
- Bearings exposed to corrosive chemicals

Dow Corning® High Vacuum Grease

Light grey translucent non-melting silicone. Serviceable from -40°C to 260°C

Cat. No.	Pk	Pack type
636082B	50 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

MOLYKOTE® 44 high temperature bearing grease, medium

Wide temperature range lubricant for rolling element bearings. Gives extended service intervals. Brown. NLGI No.2. Serviceable from -40°C to 200°C.

Cat. No.	Pk	Pack type
636022M	100 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

MOLYKOTE® 111 compound

Lubricates and seals valves. Ideal O ring lubricant. FDA and Water Research Centre approved. White in colour. Tacky, stiff consistency. Serviceable from -40°C to 200°C.

Cat. No.	Pk	Pack type
636052S	100 g	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Silicone grease TECHNICAL for high vacuum

Cat. No.	Pk	Pack type
331353N	50 g	Aluminium tube

Silicone grease TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
6674.0050	50 g	Plastic bottle

Silver (reagents for the analysis of)

Chromotropic acid disodium salt dihydrate analytical reagent p.112
Dithizone analytical reagent..... p.156

Silver

CAS 7440-22-4
EINECS: 231-131-3

Ag
M.W. 107.87 g/mol
Density: 10.5 g/cm³ (20 °C)
Boiling Pt: 2212 °C (1013 hPa)
Melting Pt: 962 °C
Storage Temperature: Ambient temperature

Silver 99.9%, powder TECHNICAL

Assay..... Min. 99.9 %

Cat. No.	Pk	Pack type
21531.132	25 g	Plastic bottle for solids

Silver standard solution, 10,000 mg/l Ag in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-22-4
EINECS: 231-131-3
UN: 3264
ADR 8,III

Ag
M.W. 107.87 g/mol
Storage Temperature: Ambient temperature

Silver standard solution, 10,000 mg/l Ag in dil. nitric acid (from $AgNO_3$) ARISTAR® standard for ICP

$AgNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456032M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Silver standard solution, 1,000 mg/l Ag in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-22-4
EINECS: 231-131-3
UN: 3264
ADR 8,III

Ag
M.W. 107.87 g/mol
Storage Temperature: Ambient temperature

Silver standard solution, 1,000 mg/l Ag in dil. nitric acid (from Ag) ARISTAR® standard for ICP-MS

Ag in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456892C	100 ml	Plastic bottle

Supplied with certificate of analysis.

Silver standard solution, 1,000 mg/l Ag in dil. nitric acid ($AgNO_3$) ARISTAR® standard for ICP

$AgNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456022K	100 ml	Plastic bottle
456024M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Silver standard solution, 1,000 mg/l Ag in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86659.180	100 ml	Plastic bottle
86659.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Silver chloride

CAS 7783-90-6
EINECS: 232-033-3

AgCl
M.W. 143.32 g/mol
Density: 5.56 g/cm³ (20 °C)
Boiling Pt: 1554 °C (1013 hPa)
Melting Pt: 455 °C
Storage Temperature: Ambient temperature

Silver chloride TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
21553.137	25 g	Glass bottle

Silver diethyldithiocarbamate

(Diethyldithiocarbamato-S,S')silver , Diethyldithiocarbamic acid silver salt , N,N-Diethyldithiocarbamic acid silver salt , DETC

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1470-61-7
EINECS: 216-003-7
UN: 3077
ADR 9,III

$(C_2H_5)_2NCSSAg$
M.W. 256.14 g/mol
Melting Pt: 176 to 178.5 °C

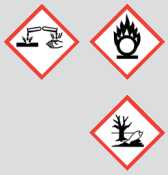
Silver diethyldithiocarbamate analytical reagent

Identification ..... Passes test

Cat. No.	Pk	Pack type
21563.108	5 g	Plastic bottle for solids

Silver nitrate

Danger
H272 H314 H410
P210 P280 P273 P301+P330+P331 P304+P340
P309+P310



CAS 7761-88-8
Index 047-001-00-2
EINECS: 231-853-9
UN: 1493
ADR 5.1,II

$AgNO_3$
M.W. 169.87 g/mol
Density: 4.35 g/cm³ (20 °C)
Boiling Pt: 444 °C (1013 hPa)
Melting Pt: 210 °C
Storage Temperature: Ambient temperature

Silver nitrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.8 %	Solution in water	Passes test
Insolubility in water	Max. 50 ppm	Not precipitated by HCl (as SO_4)	Max. 100 ppm
Cl (Chloride)	Max. 5 ppm	SO_4 (Sulphate)	Max. 20 ppm
Ca (Calcium)	Max. 10 ppm	Cd (Cadmium)	Max. 1 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 2 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 5 ppm
Mn (Manganese)	Max. 5 ppm	Ni (Nickel)	Max. 5 ppm
Pb (Lead)	Max. 10 ppm	Zn (Zinc)	Max. 1 ppm
Conforms to BDH 10233	Passes test		

Cat. No.	Pk	Pack type
21572.133	25 g	Plastic bottle for solids
21572.188	100 g	Plastic bottle for solids
21572.235	250 g	Plastic bottle for solids
21572.292	1 kg	Plastic bottle for solids

Silver nitrate Ph. Eur.

Assay	99.0 to 100.5 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Foreign salts	Max. 0.3 %
Aluminium, lead, copper and bismuth	Passes test
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83517.180	100 g	Plastic bottle for solids

Silver nitrate GPR RECTAPUR®

Assay ..... Min. 99.5 %
Foreign heavy metals (as Pb) ..... Max. 20 ppm
Not precipitated by HCl (as SO_4) ..... Max. 100 ppm
Cl (Chloride) ..... Max. 10 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm
Pb (Lead) ..... Max. 20 ppm
Conforms to BDH 30087 ..... Passes test

Cat. No.	Pk	Pack type
21570.136	25 g	Plastic bottle for solids
21570.182	100 g	Plastic bottle for solids
21570.238	250 g	Plastic bottle for solids
21570.295	1 kg	Plastic bottle for solids

Silver nitrate, proteomics grade

Staining protein after electrophoretic separation. Also used to determine chloride ions in solution.

Chloride ..... 0.0005 %
Clarity of Solution ..... PASS
Copper ..... 0.0002 %
Free Acid ..... PASS
Iron ..... 0.0002 %
Lead ..... 0.001 %
Purity ..... 99.0 %
Substances not Precipitated by HCl ..... 0.01 %
Sulphate ..... 0.002 %

Cat. No.	Pk	Pack type
M122-25G	25 g	Glass bottle
M122-100G	100 g	Glass bottle
M122-500G	500 g	Glass bottle

Silver nitrate concentrated aqueous solution

Danger
H314 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7761-88-8
EINECS: 231-853-9
UN: 1760
ADR 8,II

$AgNO_3$
Storage Temperature: Ambient temperature

Silver nitrate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C) ..... 0.0995 to 0.1005 mol/l
Conforms to BDH 18041 ..... Passes test

Cat. No.	Pk	Pack type
32056.602	60 ml	Plastic ampoule

Silver nitrate (0.294 - 2 mol/l; 0.294 - 2 N) in aqueous solution

Danger
H314 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7761-88-8
EINECS: 231-853-9
UN: 3264
ADR 8,II

$AgNO_3$
Storage Temperature: Ambient temperature

Silver nitrate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l
Conforms to BDH 19122 ..... Passes test

Cat. No.	Pk	Pack type
30471.237	250 ml	Glass bottle
30471.294	1 l	Glass bottle

Silver nitrate (0.058 - < 0.294 mol/l; 0.058 - < 0.294 N) in aqueous solution

H412
P273

CAS 7761-88-8
EINECS: 231-853-9
UN: 3082
ADR 9,III

$AgNO_3$
Storage Temperature: Ambient temperature

Silver nitrate 0.25 mol/l (0.25 N) in aqueous solution Reag. Ph. Eur. 1078301

Cat. No.	Pk	Pack type
87924.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Silver nitrate 0.164 mol/l (0.164 N; 27.9 g/l; 1 ml = 5.8 mg Cl) in aqueous solution VOLUSOL® for hydrotimetry

Cat. No.	Pk	Pack type
30489.262	500 ml	Glass bottle

Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution Reag. Ph. Eur. 1078302

Cat. No.	Pk	Pack type
87925.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l
Conforms to BDH 19123 ..... Passes test

Cat. No.	Pk	Pack type
30472.297	1 l	Glass bottle
30472.322	2,5 l	Glass bottle
30472.402	10 l	Bag-in-box (Cubitainer)

Silver nitrate 0.0855 mol/l (0.0855 N; 14.52 g/l; 1 ml = 5 mg NaCl) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.08533 to 0.08567 mol/l

Cat. No.	Pk	Pack type
30488.292	1 l	Glass bottle

Silver nitrate (0.0058 - < 0.058 mol/l; 0.0058 - < 0.058 N) in aqueous solution

H412
P273

CAS 7761-88-8
EINECS: 231-853-9

$AgNO_3$
Storage Temperature: Ambient temperature

Silver nitrate 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
30475.297	1 l	Glass bottle
30475.322	2,5 l	Glass bottle

Silver nitrate 0.02 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0198 to 0.0202 mol/l

Cat. No.	Pk	Pack type
191265J	2,5 l	Glass bottle

Silver nitrate 0.01 mol/l (0.01 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
30476.291	1 l	Glass bottle

Silver nitrate (0.294 - 2 mol/l; 0.294 - 2 N) in pyridine

CAS 7761-88-8
EINECS: 231-853-9

$AgNO_3$

Silver nitrate solution in pyridine Reag. Ph. Eur. 1078304

Cat. No.	Pk	Pack type
87926.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Silver nitrate reagent

Danger
H314 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310
UN: 3262
ADR 8,III

NEW

Silver nitrate reagent Reag. Ph. Eur. 1078305

Cat. No.	Pk	Pack type
87927.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

di-Silver oxide

Danger
H272 H314
EUH044
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 20667-12-3
EINECS: 243-957-1
UN: 1479
ADR 5.1,II

Ag_2O
M.W. 231.74 g/mol
Density: 7.14 g/cm³ (20 °C)
Melting Pt: 800 to 830 °C
Storage Temperature: 2 - 8°C

di-Silver oxide TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
21584.134	25 g	Plastic bottle for solids

Silver sulphate

Disilver sulphate

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 10294-26-5
EINECS: 233-653-7

Ag_2SO_4
M.W. 311.8 g/mol
Density: 5.45 g/cm³ (20 °C)
Boiling Pt: 1085 °C (1013 hPa)
Melting Pt: 655 °C
Storage Temperature: Ambient temperature

Silver sulphate AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.5 %
Foreign heavy metals (as Pb) ..... Max. 20 ppm
Substances not precipitated by HCl .... Max. 0.03 %
NO_3 (Nitrate) ..... Max. 10 ppm
Fe (Iron) ..... Max. 10 ppm
Conforms to BDH 10234 ..... Passes test
Solution in water ..... Passes test
Insolubility in water ..... Max. 0.02 %
Cl (Chloride) ..... Max. 10 ppm
Cu (Copper) ..... Max. 5 ppm
Pb (Lead) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
21592.154	50 g	Plastic bottle for solids
21592.234	250 g	Plastic bottle for solids

Silver sulphate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
21589.153	50 g	Plastic bottle for solids
21589.233	250 g	Plastic bottle for solids

Silver sulphate in sulphuric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 10294-26-5
EINECS: 233-653-7
UN: 1830
ADR 8,II

Ag_2SO_4

Silver sulphate 10 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

Chemical oxygen demand (COD) ..... Passes test

Cat. No.	Pk	Pack type
30491.247	1 l	Glass bottle SAFEBREAK
30491.420	2,5 l	Glass bottle SAFEBREAK

Silver sulphate 6.6 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

Chemical oxygen demand (COD) ..... Passes test

Cat. No.	Pk	Pack type
30492.241	1 l	Glass bottle SAFEBREAK
30492.423	2,5 l	Glass bottle SAFEBREAK

Simazine (2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine)

CAS 122-34-9
Index 612-088-00-3
EINECS: 204-535-2

$C_7H_{12}ClN_5$
M.W. 201.66 g/mol

NEW Simazine (2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine)

Cat. No.	Pk	Pack type
124502D	10 mg	Glass ampoule

Sioetch® MT 06/01

Danger
H330 H301+H311 H314
P280 P284 P301+P330+P331 P302+P352 P304+P340
P305+P351+P338 P309+P310
UN: 1790
ADR 8,II
Density: 1.1 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)

Sioetch® MT 06/01 VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51152832.	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR International office or supplier.

Skim milk for microbiology, pre-weighed

See Microbiology

Slaked lime

See Calcium hydroxide p.94

SOC Media

SOC Media

SOC Media increases transformation efficiency in competent *E. coli*. After transformation, cells are incubated in SOC to allow expression of antibiotic resistance genes prior to selection on appropriate media.
Provided in a premixed solution with the following composition:
Tryptone/Casein Peptone 2.0 %
Yeast Extract 0.5 %
Sodium Chloride 8.5 mM
Potassium Chloride 2.5 mM
D-Glucose 20.0 mM
Magnesium Chloride, Hexahydrate 10.0 mM
Magnesium Sulphate, Heptahydrate 10.0 mM

Microbial Contamination ..... < 10 CFU

Cat. No.	Pk	Pack type
N549-6X5ML	5x5 ml	Vial
N549-100ML	100 ml	Plastic bottle

Soda lime with indicator

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 8006-28-8
UN: 1907
ADR 8,III
Storage Temperature: Ambient temperature

Soda lime with indicator AnalaR NORMAPUR® analytical reagent

For absorbtion of acidic gas (CO_2)

This soda lime contains a new, more efficient saturation indicator. It changes from white to purple when saturated by CO_2

Identification ..... Passes test
Absorption capacity (as CO_2) ..... Min. 25 %
Particle size (2 - 5 mm) ..... About 95 %
Loss on drying (105°C) ..... 13.0 to 18.0 %

Cat. No.	Pk	Pack type
22666.293	1 kg	Plastic bottle for solids
22666.362	5 kg	Bucket (Plastic)
22666.555	180 kg	Plastic drum

Soda lime with indicator, granules Carbosorb® 1,0-2,5 mm (6-16 mesh), non-deliquescent

Caustic alkali less than 4%

Identity ..... Passes test
Absorption capacity for CO_2 (according to NF) ..... Min. 25 %
Caustic alkalis ..... Max. 4.0 %

Cat. No.	Pk	Pack type
33115AX	5 kg	Plastic bottle

Sodium standard solution, 10,000 mg/l Na in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-23-5
EINECS: 231-132-9
UN: 3264
ADR 8,III

Na
M.W. 22.99 g/mol
Storage Temperature: Ambient temperature

Sodium standard solution, 10,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ICP-MS

Na in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457132T	100 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium standard solution, 10,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP

$NaNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456052Q	100 ml	Plastic bottle
456054S	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ICP-MS

Na in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456902K	100 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ion chromatography

Na in dilute HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458232D	100 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP

$NaNO_3$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456042X	100 ml	Plastic bottle
456044Q	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium standard solution, 1,000 mg/l Na in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86693.180	100 ml	Plastic bottle
86693.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sodium acetate

Acetic acid sodium salt

CAS 127-09-3
EINECS: 204-823-8
Flash Pt: Min. 250 °C (closed cup)

$H_3CCOONa$
M.W. 82.03 g/mol
Density: 1.528 g/cm³ (20 °C)
Boiling Pt: 881.4 °C (1013 hPa)
Melting Pt: 324 °C
Storage Temperature: Ambient temperature

Sodium acetate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99 %
IR Spectrum	Passes test
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (120°C)	Max. 1.0 %
PO_4 (Phosphate)	Max. 10 ppm
Al (Aluminium)	Max. 10 ppm
Cu (Copper)	Max. 3 ppm
K (Potassium)	Max. 0.05 %
Conforms to ACS	Passes test
Identification	Passes test
pH (25°C; 5 %)	7.0 to 9.2
Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 30 ppm
Ca (Calcium)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm
Mg (Magnesium)	Max. 20 ppm
Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27653.235	250 g	Plastic bottle for solids
27653.260	500 g	Plastic bottle for solids
27653.292	1 kg	Plastic bottle for solids

Sodium acetate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27650.292	1 kg	Plastic bottle for solids
27650.361	5 kg	Bucket (Plastic)

Sodium acetate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
443894K	500 g	Plastic bottle
443897N	5 kg	Plastic bottle

Sodium acetate trihydrate

Acetic acid sodium salt trihydrate

CAS 6131-90-4
EINECS: 204-823-8

$H_3CCOONa.3H_2O$
M.W. 136.08 g/mol
Density: 1.4 g/cm³ (20 °C)
Boiling Pt: 120 to 123 °C (1013 hPa)
Melting Pt: 58 °C
Storage Temperature: Ambient temperature

Sodium acetate trihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.5 to 101.0 %
Identification A	Passes test
IR Spectrum	Passes test
Solution S	Passes test Ph.Eur.
pH (25°C; 5 %)	7.5 to 9.0
Insolubility in water	Max. 50 ppm
Substances reducing $KMnO_4$ (as HCOOH)	Max. 50 ppm
PO_4 (Phosphate)	Max. 2 ppm
Total N (Nitrogen)	Max. 10 ppm
As (Arsenic)	Max. 2 ppm
Ca + Mg (as Ca)	Max. 50 ppm
Fe (Iron)	Max. 2 ppm
Mg (Magnesium)	Max. 5 ppm
Conforms to ACS	Passes test
Appearance of solution	Passes test Ph.Eur.
Identification B	Passes test
Solution in water	Passes test
Acidity or alkalinity	Max. 0.25 meq/g
Heavy metals (as Pb)	Max. 5 ppm
Loss on drying (130°C)	39.0 to 40.5 °C
Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 20 ppm
Al (Aluminium)	Max. 5 ppm
Ca (Calcium)	Max. 10 ppm
Cu (Copper)	Max. 2 ppm
K (Potassium)	Max. 50 ppm
Pb (Lead)	Max. 5 ppm
Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27652.232	250 g	Plastic bottle for solids
27652.260	500 g	Plastic bottle for solids
27652.298	1 kg	Plastic bottle for solids
27652.367	5 kg	Plastic bottle for solids
27652.460	25 kg	Bucket (Plastic)

Sodium acetate trihydrate Ph. Eur.

Assay (dried substance)	99.0 to 101.0 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (5 %)	7.5 to 9.0
Reducing substances	Passes test
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 200 ppm
As (Arsenic)	Max. 2 ppm
Calcium and magnesium (as Ca)	Max. 50 ppm
Heavy metals (as Pb)	Max. 10 ppm
Fe (Iron)	Max. 10 ppm
Loss on drying (130°C)	39.0 to 40.5 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27649.297	1 kg	Plastic bottle for solids
27649.468	25 kg	Bucket (Plastic)

Sodium acetate trihydrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27648.294	1 kg	Plastic bottle for solids
27648.363	5 kg	Bucket (Plastic)

Sodium acetate trihydrate TECHNICAL

Assay	Min. 97 %

Cat. No.	Pk	Pack type
27641.360	5 kg	Bucket (Plastic)

pH-Buffer solution (acetate buffer, concentrated) pH 4.5 (20°C) for chlorine determination in water monitors

pH (20 °C)	4.00 to 4.50
Free chlorine	Max. 0.5 ppm

Cat. No.	Pk	Pack type
160868L	25 l	Metal drum

Sodium acetate buffer solution

CAS 127-09-3
EINECS: 204-823-8

$H_3CCOONa$
Storage Temperature: Ambient temperature

Sodium acetate buffer solution pH 4.2 (2 mol/l) for biotechnology

DNase	NONE
pH @25 °C	4.1 - 4.3
RNase	NONE
Sterility	PASS

Cat. No.	Pk	Pack type
E502-100ML	100 ml	Plastic bottle

Sodium acetate buffer solution pH 5.2 (3 mol/l) for biotechnology, sterile

DNase	NONE
pH @25 °C	5.1 - 5.3
Sterility	PASS

Cat. No.	Pk	Pack type
E498-100ML	100 ml	Plastic bottle
E498-200ML	200 ml	Plastic bottle

Sodium acetate buffer solution pH 5.2 (3 mol/l), DEPC treated for biotechnology, sterile

DNase	NONE
pH @25 °C	5.1 - 5.3
RNase	NONE
Sterility	PASS

Cat. No.	Pk	Pack type
E521-100M	100 ml	Plastic bottle

Sodium acetate buffer solution pH 7 (3 mol/l), ultrapure

Acetate	2.80 - 3.20 M
DNase	NONE
pH @25 °C	6.90 - 7.10
RNase	NONE

Cat. No.	Pk	Pack type
J618-100ML	100 ml	Plastic bottle

Sodium alginate

Alginic acid sodium salt

CAS 9005-38-3
Storage Temperature: Ambient temperature

Sodium alginate TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
27660.296	1 kg	Plastic bottle for solids

Sodium aluminate

Aluminum sodium oxide , Aluminium sodium dioxide , Sodium aluminum oxide

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1302-42-7
EINECS: 215-100-1
UN: 2812
ADR 8,

$NaAlO_2$
M.W. 81.97 g/mol
Density: 1.5 g/cm³ (20 °C)
Melting Pt: 1800 °C

Sodium aluminate, coarse powder TECHNICAL

Assay (calculated as Al_2O_3)	50 to 56 %
Identification	Passes test

Cat. No.	Pk	Pack type
27663.290	1 kg	Plastic bottle for solids

Sodium aluminum oxide

See Sodium aluminate p.431

Sodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate

See Nuclear Fast Red p.328

Sodium L(+)-ascorbate

Acidum ascorbicum sodium salt , L(+)-Ascorbic acid sodium salt , Sodium ascorbate

CAS 134-03-2
EINECS: 205-126-1

$C_6H_7NaO_6$
M.W. 198.11 g/mol
Density: 1.799 g/cm³ (20 °C)
Melting Pt: 219 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Sodium L(+)-ascorbate USP

Heavy Metals	0.002 %
Identification	PASS
Loss on Drying	0.25 %
pH (10 %, Water) @25 °C	7.0 - 8.0
Purity	99.0 - 101.0 %
Specific Rotation	+103 to +108 °

Cat. No.	Pk	Pack type
0561-100G	100 g	Glass bottle

Product is Tested to USP Specifications

Sodium L(+)-ascorbate TECHNICAL

Assay (on anhydrous substance) ..... Min. 99 %

Cat. No.	Pk	Pack type
27688.235	250 g	Plastic bottle for solids
27688.292	1 kg	Plastic bottle for solids

Sodium azide

Sodium triazide

Danger
H300 H410
EUH032
P273 P301+P310

CAS 26628-22-8
Index 011-004-00-7
EINECS: 247-852-1
UN: 1687
ADR 6.1,II

NaN_3
M.W. 65.01 g/mol
Density: 1.85 g/cm³ (20 °C)
Melting Pt: 275 °C
Storage Temperature: Ambient temperature

Sodium azide AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Appearance	White crystalline powder
Identification	Passes test	Free alkalinity	Max. 0.05 meq/g
Insolubility in water	Max. 150 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Cr (Chromium)	Max. 20 ppm
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 5 ppm
Pb (Lead)	Max. 10 ppm		

Cat. No.	Pk	Pack type
103692K	100 g	Plastic bottle for solids
103694M	500 g	Plastic bottle for solids
10369AS	5 kg	Plastic bottle for solids

Sodium benzoate

Benzoic acid sodium salt

CAS 532-32-1
EINECS: 208-534-8
Flash Pt: Min. 100 °C

C_6H_5COONa
M.W. 144.11 g/mol
Density: 1.44 g/cm³ (20 °C)
Melting Pt: 410 to 430 °C
Storage Temperature: Ambient temperature

Sodium benzoate AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance)	Min. 99.5 %	pH (20°C; 5 %)	7.0 to 9.0
Insolubility in water	Max. 50 ppm	Loss on drying (100°C)	Max. 1.0 %
Total Cl (Chlorine)	Max. 0.03 %	Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm	Ca (Calcium)	Max. 100 ppm
Cu (Copper)	Max. 1 ppm	Fe (Iron)	Max. 1 ppm
K (Potassium)	Max. 0.05 %	Mg (Magnesium)	Max. 50 ppm
Pb (Lead)	Max. 5 ppm		

Cat. No.	Pk	Pack type
103974R	500 g	Plastic bottle for solids

Sodium benzoate Ph. Eur.

Assay (calculated on dried substance)	99.0 to 100.5 %
Appearance	White granular powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Halogenated compounds	Passes test
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 2.0 %
Statement of original manufacturer	(*)
Benzene (*)	Max. 2 ppm
Toluene (*)	Max. 890 ppm
Other residual solvents (*)	Unlikely by manuf.process

Cat. No.	Pk	Pack type
83551.290	1 kg	Plastic bottle for solids
83551.360	5 kg	Bucket (Plastic)

Sodium benzoate, purified

Assay (calculated on anhydrous)	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Loss on drying (100°C)	Max. 1.0 %
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.03 %

Cat. No.	Pk	Pack type
27694.293	1 kg	Plastic bottle for solids
27694.362	5 kg	Bucket (Plastic)
27694.460	25 kg	Bucket (Plastic)

Sodium bicarbonate

See Sodium hydrogen carbonate p.441

Sodium borohydride

See Sodium tetrahydroborate p.459

Sodium bromide

CAS 7647-15-6
EINECS: 231-599-9

NaBr
M.W. 102.89 g/mol
Density: 3.2 g/cm³ (20 °C)
Boiling Pt: 1396 °C (1013 hPa)
Melting Pt: 753 °C
Storage Temperature: Ambient temperature

Sodium bromide AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance)	Min. 99 %	Acidity	Max. 0.002 meq/g
Alkalinity	Max. 0.004 meq/g	Heavy metals (as Pb)	Max. 10 ppm
Insolubility in water	Max. 50 ppm	Loss on drying (150°C)	Max. 2 %
BrO_3 (Bromate)	Max. 5 ppm	Cl (Chloride)	Max. 0.3 %
NH_4 (Ammonium)	Max. 20 ppm	SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 2 ppm	Ca (Calcium)	Max. 0.02 %
Fe (Iron)	Max. 10 ppm	K (Potassium)	Max. 0.05 %
Mg (Magnesium)	Max. 20 ppm		

Cat. No.	Pk	Pack type
27739.298	1 kg	Plastic bottle for solids

Sodium bromide GPR RECTAPUR®

Assay (calculated on dried substance)	Min. 98 %
Heavy metals (as Pb)	Max. 50 ppm
Loss on drying (150°C)	Max. 2 %
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
27742.290	1 kg	Plastic bottle for solids

Sodium carbonate

Warning
H319
P280 P305+P351+P338

CAS 497-19-8
Index 011-005-00-2
EINECS: 207-838-8

$NaCO_3$
M.W. 105.99 g/mol
Density: 2.53 g/cm³ (20 °C)
Boiling Pt: 1600 °C (1013 hPa)
Melting Pt: 854 °C
Storage Temperature: Ambient temperature

Sodium carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance)	Min. 99.9 %	Heavy metals (as Pb)	Max. 5 ppm
Insoluble substances	Max. 100 ppm	Loss on drying (300°C)	Max. 1.0 %
Total N (Nitrogen)	Max. 10 ppm	Total S (as SO_4)	Max. 30 ppm
Cl (Chloride)	Max. 10 ppm	PO_4 (Phosphate)	Max. 10 ppm
SiO_4 (as SiO_2)	Max. 20 ppm	Al (Aluminium)	Max. 10 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 5 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27771.233	250 g	Plastic bottle for solids
27771.260	500 g	Plastic bottle for solids
27771.290	1 kg	Plastic bottle for solids
27771.360	5 kg	Plastic bottle for solids

Sodium carbonate, anhydrous Ph. Eur.

Assay (calculated on dried substance)	99.5 to 100.5 %
Appearance	White powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Identification D	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Alkali hydroxides and bicarbonates	Passes test
Cl (Chloride)	Max. 125 ppm
SO_4 (Sulphate)	Max. 250 ppm
As (Arsenic)	Max. 5 ppm
Fe (Iron)	Max. 50 ppm
Heavy metals (as Pb)	Max. 50 ppm
Loss on drying (300°C)	Max. 1.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27767.295	1 kg	Plastic bottle for solids
27767.466	25 kg	Bucket (Plastic)

Sodium carbonate GPR RECTAPUR®

Assay (on anhydrous substance)	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
27766.292	1 kg	Plastic bottle for solids
27766.361	5 kg	Bucket (Plastic)
27766.463	25 kg	Bucket (Plastic)

Sodium carbonate, purified

Assay (on anhydrous substance)	Min. 98 %
Heavy metals (as Pb)	Max. 50 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
27762.367	5 kg	Bucket (Plastic)

VWR CHEMICALS Sodium carbonate, proteomics grade

Ammonium Hydroxide Precipitate	0.01 %
Calcium	0.03 %
Chloride	0.001 %
Heavy Metals (as Pb)	0.0005 %
Insolubles	0.01 %
Iron	0.0005 %
Loss on Heating	1.0 %
Magnesium	0.005 %
Nitrogen Compounds	0.001 %
Phosphate	0.001 %
Potassium	0.005 %
Protease	NONE
Purity	99.5 %
Silica	0.005 %
Sulphur Compounds	0.003 %

Cat. No.	Pk	Pack type
M138-500G	500 g	Plastic bottle for solids
M138-1KG	1 kg	Plastic bottle for solids

Sodium carbonate TECHNICAL

Assay (on anhydrous substance)	Min. 97 %

Cat. No.	Pk	Pack type
27754.360	5 kg	Bucket (Plastic)
27754.460	25 kg	Bucket (Plastic)

Sodium carbonate decahydrate

Warning
H319
P280 P305+P351+P338

CAS 6132-02-1
Index 011-005-00-2
EINECS: 207-838-8

$NaCO_3 \cdot 10H_2O$
M.W. 286.14 g/mol
Density: 1.46 g/cm³ (20 °C)
Melting Pt: 33 °C
Storage Temperature: Ambient temperature

Sodium carbonate decahydrate AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 102.0 %	Alkali hydroxides and bicarbonates	Passes test
Solution in water	Passes test	Heavy metals (as Pb)	Max. 5 ppm
Total N (Nitrogen)	Max. 5 ppm	Total S (as SO_4)	Max. 30 ppm
Cl (Chloride)	Max. 10 ppm	$PO_4 + SiO_4$ (as SiO_2)	Max. 20 ppm
Al (Aluminium)	Max. 5 ppm	As (Arsenic)	Max. 5 ppm
Ca (Calcium)	Max. 20 ppm	Fe (Iron)	Max. 2 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 3 ppm

Cat. No.	Pk	Pack type
27768.298	1 kg	Plastic bottle for solids

Sodium carbonate decahydrate Ph. Eur.

Assay (Na_2CO_3)	36.7 to 40.0 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Alkali hydroxides and bicarbonates	Passes test
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 20 ppm
Heavy metals (as Pb)	Max. 20 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27761.295	1 kg	Plastic bottle for solids

Sodium carbonate concentrated aqueous solution

CAS 497-19-8
EINECS: 207-838-8

$NaCO_3$
Storage Temperature: Ambient temperature

Sodium carbonate 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C)	0.04975 to 0.05025 mol/l

Cat. No.	Pk	Pack type
32063.606	60 ml	Plastic ampoule

Sodium carbonate 4% (40 g/l) in sodium hydroxide solution 0.2 mol/l

CAS 497-19-8
EINECS: 207-838-8

$NaCO_3$
Storage Temperature: Ambient temperature

Sodium carbonate 4% (40 g/l) in sodium hydroxide solution 0.2 mol/l Reag. Ph. Eur. 1079303

Cat. No.	Pk	Pack type
87930.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium carbonate 2% (20 g/l) in sodium hydroxide solution 0.1 mol/l Reag. Ph. Eur. 1079302

Cat. No.	Pk	Pack type
87929.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium carbonate (< 2.5 mol/l) in aqueous solution

CAS 497-19-8
EINECS: 207-838-8

$NaCO_3$
Storage Temperature: Ambient temperature

Sodium carbonate 1 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1079301

Cat. No.	Pk	Pack type
87928.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium carbonate 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy)	0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31524.294	1 l	Plastic bottle

Sodium chloride

CAS 7647-14-5
EINECS: 231-598-3

NaCl
M.W. 58.44 g/mol
Density: 2.16 g/cm³ (20 °C)
Boiling Pt: 1413 °C (1013 hPa)
Melting Pt: 801 °C
Storage Temperature: Ambient temperature

Sodium chloride HiPerSolv CHROMANORM® for HPLC

Assay (after ignition) (argentometric)	Min 99.9 %
pH (c = 5%, H_2O)	5.0 to 8.0
Transmission (206 (`cut-off') nm)	Min 10 %
Transmission (254 nm)	Min 95 %
Phosphate (PO_4)	Max 0.0005 %
Sulphates (SO_4)	Max 0.001 %
Bromide (Br^-)	Max 0.005 %
Iodide (I)	Max 0.001 %
Fe (Iron)	Max 0.0001 %
K (Potassium)	Max 0.005 %
Pb (Lead)	Max 0.0002 %

Cat. No.	Pk	Pack type
153274V	500 g	Plastic bottle

Sodium chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Appearance of solution S	Passes test Ph.Eur.
Identification	Passes test	Identification A	Passes test Ph.Eur.
Identification B	Passes test Ph.Eur.	NO_2 (Nitrite)	Passes test Ph.Eur.
Solution in water	Passes test	Acidity or alkalinity	Max. 0.0005 meq/g
pH (20°C; 5 %)	5.0 to 8.0	Heavy metals (as Pb)	Max. 2 ppm
Hexacyanoferrates (as $Fe(CN)_6$)	Max. 1 ppm	Insolubility in water	Max. 50 ppm
Loss on drying	Max. 0.5 %	Total N (Nitrogen)	Max. 5 ppm
Br (Bromide)	Max. 50 ppm	ClO_3 + NO_3 (as NO_3)	Max. 30 ppm
I (Iodide)	Max. 10 ppm	PO_4 (Phosphate)	Max. 5 ppm
SO_4 (Sulphate)	Max. 40 ppm	As (Arsenic)	Max. 0.4 ppm
Ba (Barium)	Max. 10 ppm	Ca (Calcium)	Max. 20 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 1 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 10 ppm
Ni (Nickel)	Max. 10 ppm	Conforms to BDH 10241	Passes test

Cat. No.	Pk	Pack type
27810.262	500 g	Plastic bottle for solids
27810.295	1 kg	Plastic bottle for solids
27810.364	5 kg	Plastic bottle for solids
27810.460	25 kg	Cardboard carton

Sodium chloride Ph. Eur.

Assay (calculated on dried substance)	99.0 to 100.5 %
Appearance	Colourless crystals
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Br (Bromide)	Max. 100 ppm
Ferrocyanides	Passes test
I (Iodide)	Passes test
NO_2 (Nitrite)	Passes test
PO_4 (Phosphate)	Max. 25 ppm
SO_4 (Sulphate)	Max. 200 ppm
As (Arsenic)	Max. 1 ppm
Ba (Barium)	Passes test
Fe (Iron)	Max. 2 ppm
Mg and alkaline-earth metals (as Ca)	Max. 100 ppm
Heavy metals (as Pb)	Max. 5 ppm
Loss on drying (105°C)	Max. 0.5 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27808.297	1 kg	Plastic bottle for solids
27808.366	5 kg	Plastic bottle for solids
27808.468	25 kg	Bucket (Plastic)

Sodium chloride GPR RECTAPUR®

Assay	Min. 99 %
Hexacyanoferrates (as $K_4[Fe(CN)_6]$)	Max. 15 ppm
Heavy metals (as Pb)	Max. 10 ppm
Br (Bromide)	Max. 0.02 %
I (Iodide)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27800.291	1 kg	Plastic bottle for solids
27800.360	5 kg	Plastic bottle for solids
27800.460	25 kg	Bucket (Plastic)

Sodium chloride Gen-Apex® Molecular biology grade

Assay	Min. 99.5 %
Colouration (1 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 2 ppm
Transmittance (230 nm)	Min. 90 %
Transmittance (260 nm)	Min. 95 %
Transmittance (280 nm)	Min. 97 %
Transmittance (320 nm)	Min. 99 %

Cat. No.	Pk	Pack type
33614.265	500 g	Plastic bottle for solids

Sodium chloride Electran® Molecular biology grade

Assay	Min. 99.5 %
Appearance	White crystalline powder
DNases (exo- and endonucleases)	Not detected
RNases	Not detected
Proteases	Not detected
pH (5 %)	5 to 8
Absorbance (260 nm) (0.1 mol/l)	Max. 0.01
Absorbance (280 nm) (0.1 mol/l)	Max. 0.01
Heavy metals (as Pb)	Max. 0.001 %
PO_4 (Phosphate)	Max. 0.001 %
SO_4 (Sulphate)	Max. 0.001 %
Ba (Barium)	Max. 0.001 %
Br (Bromide)	Max. 0.005 %
Ca (Calcium)	Max. 0.002 %
Fe (Iron)	Max. 0.0001 %
I (Iodide)	Max. 0.001 %
K (Potassium)	Max. 0.005 %
Mg (Magnesium)	Max. 0.001 %
Pb (Lead)	Max. 0.0005 %

Cat. No.	Pk	Pack type
443824T	500 g	Plastic bottle
443827W	5 kg	Plastic bottle

Sodium chloride for biotechnology

Common source of salts for media propagation of many organisms.

Calcium	0.005 %
DNase	NONE
Heavy Metals	0.0005 %
Iodide	0.002 %
Iron	0.0002 %
Loss on Drying	< 0.5 %
Magnesium	0.005 %
Nitrogen Compounds	0.001 %
pH (5 %, Water) @25 °C	5.0 - 9.0
Phosphate	0.0005 %
Potassium	0.005 %
Protease	NONE
Purity	99.9 %
RNase	NONE
Sulphate	0.0004 %

Cat. No.	Pk	Pack type
0241-500G	500 g	Plastic bottle for solids
0241-1KG	1 kg	Plastic bottle for solids
0241-2.5KG	2,5 kg	Plastic bottle for solids
0241-5KG	5 kg	Plastic bottle for solids
0241-10KG	10 kg	Bucket (Plastic)
0241-12KG	12 kg	Bucket (Plastic)
0241-50KG	50 kg	Plastic drum

Sodium chloride TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
27788.297	1 kg	Plastic bottle for solids
27788.366	5 kg	Bucket (Plastic)
27788.460	25 kg	Bucket (Plastic)

BROXO salt, tablets

Cat. No.	Pk	Pack type
5254.9025	25 kg	Plastic bag

Sodium chloride (10 - 35%) in aqueous solution

CAS 7647-14-5

EINECS: 231-598-3

NaCl

Density: 1 to 1.2 g/cm³ (20 °C)

Storage Temperature: Ambient temperature

Sodium chloride 20% in aqueous solution Reag. Ph. Eur. 1079502

Cat. No.	Pk	Pack type
87931.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium chloride 180 g/l in aqueous solution

concentrated saline solution for preparing isotonic (0.9% w/v) solution

Assay (W/V)	17.9 to 18.1 %
pH	5.5 to 8.5

Cat. No.	Pk	Pack type
230386M	2,5 l	Glass bottle

Sodium chloride 9 g/l in aqueous solution

Assay (W/V)	0.891 to 0.909 %
Appearance	Clear colourless liquid
Raw materials	Passes test Ph. Eur.

Cat. No.	Pk	Pack type
5929.1000	1 l	Plastic bottle

Sodium chloride 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C) ..... 0.0995 to 0.1005 mol/l

Cat. No.	Pk	Pack type
32064.600	60 ml	Plastic ampoule

Sodium chloride 5 mol/l (5 N) in aqueous solution for biotechnology, sterile

Common source of salts for media propagation of many organisms.

Conductivity (1 %, Water) ..... 5000 - 7000 umhos
Identification ..... PASS
pH @25 °C ..... 5.0 - 9.0
Sterility ..... PASS

Cat. No.	Pk	Pack type
E529-100ML	100 ml	Plastic bottle
E529-500ML	500 ml	Plastic bottle

Sodium chloride 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
31535.292	1 l	Glass bottle

tri-Sodium citrate dihydrate

Citric acid trisodium salt dihydrate , Sodium citrate tribasic dihydrate

CAS 6132-04-3
EINECS: 200-675-3

$HOC(COONa)(CH_2COONa)_2 \cdot 2H2O$
M.W. 294.1 g/mol
Density: 1.76 g/cm³ (20 °C)
Melting Pt: 150 °C
Storage Temperature: Ambient temperature

tri-Sodium citrate dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (calculated on anhydrous) ... 99.0 to 101.0 %
Appearance of solution ..... Passes test Ph.Eur.
Identification B ..... Passes test Ph.Eur.
Readily carbonisable substances Passes test Ph.Eur.
pH (25°C; 5 %) ..... 7.5 to 9.0
Insolubility in water ..... Max. 50 ppm
Total N (Nitrogen) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 10 ppm
PO_4 (Phosphate) ..... Max. 20 ppm
As (Arsenic) ..... Max. 1 ppm
Cu (Copper) ..... Max. 5 ppm
Li (Lithium) ..... Max. 5 ppm
Conforms to ACS ..... Passes test
Acidity or alkalinity ..... Passes test Ph.Eur.
Identification A ..... Passes test Ph.Eur.
Solution S ..... Passes test Ph.Eur.
Tartaric acid ..... Passes test
Heavy metals (as Pb) ..... Max. 5 ppm
Oxalic acid ..... Max. 100 ppm
Water ..... 11.0 to 13.0 %
NH_3 (Ammonia) ..... Max. 30 ppm
SO_4 (Sulphate) ..... Max. 40 ppm
Ca (Calcium) ..... Max. 50 ppm
Fe (Iron) ..... Max. 5 ppm
Pb (Lead) ..... Max. 5 ppm
Conforms to Reag. Ph.Eur. ..... Passes test

Cat. No.	Pk	Pack type
27833.237	250 g	Plastic bottle for solids
27833.260	500 g	Plastic bottle for solids
27833.294	1 kg	Plastic bottle for solids
27833.363	5 kg	Plastic bottle for solids
27833.460	25 kg	Cardboard carton

tri-Sodium citrate dihydrate, crystallized Ph. Eur.

Assay (calculated on anhydrous) ..... 99.0 to 101.0 %
Appearance ..... White crystalline powder
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Readily carbonisable substances ..... Passes test
Cl (Chloride) ..... Max. 50 ppm
C_2O_4 (Oxalate) ..... Max. 300 ppm
SO_4 (Sulphate) ..... Max. 150 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Water ..... 11.0 to 13.0 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
27831.297	1 kg	Plastic bottle for solids
27831.366	5 kg	Plastic bottle for solids

tri-Sodium citrate dihydrate GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 50 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27830.294	1 kg	Plastic bottle for solids
27830.363	5 kg	Plastic bottle for solids
27830.460	25 kg	Bucket (Plastic)

tri-Sodium citrate dihydrate Gen-Apex® Molecular biology grade

Assay ..... Min. 99 %
Colouration (0.1 mol/l; water) ..... Max. 10 APHA
Heavy metals (as Pb) ..... Max. 2 ppm
Transmittance (260 nm) ..... Min. 98 %
Transmittance (280 nm) ..... Min. 98 %

Cat. No.	Pk	Pack type
33615.268	500 g	Plastic bottle for solids

tri-Sodium citrate dihydrate Electran® Molecular biology grade

Assay ..... Min. 99.5 %
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.01
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.01
Heavy metals (as Pb) ..... Max. 0.001 %
pH (20 °C; 5 %) ..... 7.5 to 9
Cl (Chloride) ..... Max. 0.001 %
PO_4 (Phosphate) ..... Max. 0.002 %
SO_4 (Sulphate) ..... Max. 0.005 %
As (Arsenic) ..... Max. 0.00001 %
Ca (Calcium) ..... Max. 0.001 %
Cd (Cadmium) ..... Max. 0.0005 %
Cr (Chromium) ..... Max. 0.0005 %
Cu (Copper) ..... Max. 0.0005 %
Fe (Iron) ..... Max. 0.0005 %
Mn (Manganese) ..... Max. 0.0005 %
Ni (Nickel) ..... Max. 0.0005 %
Pb (Lead) ..... Max. 0.0005 %
Zn (Zinc) ..... Max. 0.0005 %

Cat. No.	Pk	Pack type
436072K	100 g	Glass bottle for solids
436075N	1 kg	Glass bottle for solids

Sodium citrate tribasic dihydrate

See tri-Sodium citrate dihydrate p.436

Sodium deoxycholate

3α,12α-Dihydroxy-5β-cholan-24-oic acid sodium salt , Deoxycholic acid sodium salt , Sodium 3α,12α-dihydroxy-5β-cholanoate

Warning
H302
P301+P312

CAS 302-95-4
EINECS: 206-132-7

$C_{24}H_{39}NaO_4$
M.W. 414.56 g/mol
Melting Pt: 357 to 365 °C
Storage Temperature: Ambient temperature

Sodium deoxycholate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27836.135	25 g	Plastic bottle for solids

Sodium dichromate dihydrate

Danger
H272 H350 H340 H360FD H330 H301 H372 H312
H314 H334 H317 H410
P201 P210 P281 P284 P273 P301+P330+P331
P302+P352 P304+P340 P309+P310

CAS 7789-12-0
Index 024-004-00-7
EINECS: 234-190-3
UN: 3087
ADR 5.1,II

Restricted to professional users.

$Na_2Cr_2O_7 \cdot 2H_2O$
M.W. 298 g/mol
Density: 2.35 g/cm³ (25 °C)
Melting Pt: 356.7 °C
Storage Temperature: Ambient temperature

Sodium dichromate dihydrate GPR RECTAPUR®

Assay ..... Min. 99.0 %
Cl (Chloride) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
27821.260	500 g	Plastic bottle for solids
27821.293	1 kg	Plastic bottle for solids

Sodium diethyldithiocarbamate trihydrate

(Diethyldithiocarbamato-S,S')sodium trihydrate , Diethyldithiocarbamic acid sodium salt trihydrate , N,N-Diethyldithiocarbamic acid sodium salt trihydrate

Warning
H302 H400
P273 P301+P312

CAS 20624-25-3
EINECS: 205-710-6
UN: 3077
ADR 9,III

$(C_2H_5)_2NCSSNa \cdot 3H_2O$
M.W. 225.31 g/mol
Density: 1.1 g/cm³ (20 °C)
Melting Pt: 95 to 98.5 °C

Sodium diethyldithiocarbamate trihydrate analytical reagent

Assay ..... Min. 97 %
Ignition residue (SO_4) ..... 30 to 35 %
Suited for copper reagent ..... Passes test

Cat. No.	Pk	Pack type
83864.180	100 g	Plastic bottle for solids

Sodium dihydrogen phosphate

Sodium phosphate monobasic , Sodium dihydrogen orthophosphate

CAS 7558-80-7
EINECS: 231-449-2

NaH_2PO_4
M.W. 119.98 g/mol
Density: 0.9996 g/cm³ (20 °C)
Melting Pt: ~ 650 °C
Storage Temperature: Ambient temperature

Sodium dihydrogen phosphate GPR RECTAPUR®

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 50 ppm
SO_4 (Sulphate) ..... Max. 0.05 %
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
28013.264	500 g	Plastic bottle for solids
28013.366	5 kg	Plastic bottle for solids

Sodium dihydrogen phosphate monohydrate

Sodium phosphate monobasic monohydrate , Sodium dihydrogen orthophosphate monohydrate

CAS 10049-21-5
EINECS: 231-449-2

$NaH_2PO_4 \cdot H_2O$
M.W. 137.99 g/mol
Density: 2.04 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Sodium dihydrogen phosphate monohydrate AnalaR NORMAPUR® analytical reagent

Assay ..... 99.0 to 102.0 %
Solution in water ..... Passes test
Sulphates (SO_4) ..... Max 0.005 %
As (Arsenic) ..... Max 0.00005 %
Cu (Copper) ..... Max 0.0002 %
K (Potassium) ..... Max 0.005 %
Pb (Lead) ..... Max 0.0005 %
pH (c = 5%, H_2O) ..... 4.1 to 4.5
Heavy metals (as Pb) ..... Max 0.0005 %
Chloride (Cl) ..... Max 0.0005 %
Ca (Calcium) ..... Max 0.005 %
Fe (Iron) ..... Max 0.0005 %
N (Nitrogen) ..... Max 0.001 %

Cat. No.	Pk	Pack type
102454R	500 g	Plastic bottle
102455S	1 kg	Plastic bottle

Sodium dihydrogen phosphate monohydrate Electran® Molecular biology grade

Cat. No.	Pk	Pack type
444433M	250 g	Plastic bottle for solids
444435X	1 kg	Plastic bottle

Sodium dihydrogen phosphate dihydrate

Sodium phosphate monobasic dihydrate , Sodium dihydrogen orthophosphate dihydrate

CAS 13472-35-0

EINECS: 231-449-2

$NaH_2PO_4 \cdot 2H_2O$

M.W. 156.01 g/mol
Density: 1.91 g/cm³ (20 °C)
Boiling Pt: Min. 650 °C (1013 hPa)
Melting Pt: 60 °C
Storage Temperature: Ambient temperature

Sodium dihydrogen phosphate dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	pH (20°C; 5 %)	4.2 to 4.5
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Total N (Nitrogen)	Max. 20 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 100 ppm	As (Arsenic)	Max. 0.5 ppm
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
28015.261	500 g	Plastic bottle for solids
28015.294	1 kg	Plastic bottle for solids

Sodium dihydrogen phosphate dihydrate Ph. Eur.

Assay (calculated on dried substance)	98.0 to 100.5 %
Appearance	Passes test
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (5 %)	4.2 to 4.5
Reducing substances	Passes test
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 300 ppm
As (Arsenic)	Max. 2 ppm
Heavy metals (as Pb)	Max. 10 ppm
Fe (Iron)	Max. 10 ppm
Loss on drying (130°C)	21.5 to 24.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
28014.291	1 kg	Plastic bottle for solids
28014.360	5 kg	Plastic bottle for solids

Sodium dihydrogen phosphate dihydrate GPR RECTAPUR®

Assay	Min. 98.0 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
28011.260	500 g	Plastic bottle for solids
28011.291	1 kg	Plastic bottle for solids
28011.360	5 kg	Plastic bottle for solids
28011.460	25 kg	Bucket (Plastic)

Sodium dihydrogen phosphate dihydrate Gen-Apex® Molecular biology grade

Assay	Min. 99 %
Colouration (0.3 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 5 ppm
SO_4 (Sulphate)	Max. 0.05 %
Transmittance (230 nm) (0.3 mol/l)	Min. 90 %
Transmittance (260 nm) (0.3 mol/l)	Min. 95 %
Transmittance (280 nm) (0.3 mol/l)	Min. 97 %
Transmittance (320 nm) (0.3 mol/l)	Min. 99 %

Cat. No.	Pk	Pack type
33616.262	500 g	Plastic bottle for solids

Sodium dihydrogen phosphate buffer solution (Sodium dihydrogen orthophosphate/Phosphoric acid)

Sodium dihydrogen phosphate buffer solution (Sodium dihydrogen orthophosphate/ Phosphoric acid) for chlorine determination in water monitors

pH (20 °C)	2.250 to 2.350
Specific gravity	1.200 to 1.240
Free chlorine	Max. 5 ppm

Cat. No.	Pk	Pack type
160918E	25 l	Metal drum

Sodium 3α,12α-dihydroxy-5β-cholanoate

See Sodium deoxycholate ... p.437

Sodium dioxoarsenate

See Sodium metaarsenite ... p.450

tetra-Sodium diphosphate decahydrate

Sodium pyrophosphate decahydrate , tetra-Sodium pyrophosphate decahydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 13472-36-1

EINECS: 231-767-1

$Na_4P_2O_7 \cdot 10H_2O$

M.W. 446.06 g/mol
Density: 1.82 g/cm³ (25 °C)
Melting Pt: 990 °C
Storage Temperature: Ambient temperature

tetra-Sodium diphosphate decahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 98.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Orthophosphates (as PO_4)	Max. 0.5 %
Cl (Chloride)	Max. 20 ppm	NH_4 (Ammonium)	Max. 10 ppm
NO_3 (Nitrate)	Max. 20 ppm	SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 1 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 100 ppm		

Cat. No.	Pk	Pack type
28055.292	1 kg	Plastic bottle for solids

tetra-Sodium diphosphate decahydrate GPR RECTAPUR®

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
28053.295	1 kg	Plastic bottle for solids

Sodium disulphite

See Sodium metabisulphite ... p.450

Sodium dithionite

Danger
H251 H302
EUH031
P280 P301+P312

CAS 7775-14-6
Index 016-028-00-1
EINECS: 231-890-0
UN: 1384
ADR 4.2,II
Flash Pt: 101 °C

$Na_2S_2O_4$
M.W. 174.11 g/mol
Density: 2.19 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Sodium dithionite TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27888.293	1 kg	Plastic bottle for solids

Sodium dodecyl sulphate (SDS)

Dodecyl sulphate sodium salt , Sodium lauryl sulphate , Lauryl sulphate sodium salt , Dodecyl sulphuric acid sodium salt

Danger
H228 H311 H302 H319 H335 H315
P210 P240 P280 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 151-21-3
EINECS: 205-788-1
UN: 1325
ADR 4.1,II
Flash Pt: Min. 100 °C

$CH_3(CH_2)_{11}OSO_3Na$
M.W. 288.38 g/mol
Density: 1.1 g/cm³ (20 °C)
Melting Pt: 204 to 207 °C
Storage Temperature: Ambient temperature

Sodium dodecyl sulphate (SDS) AnalaR NORMAPUR® analytical reagent, for biochemistry

A general biochemical reagent often used as a detergent for electrophoresis

Assay (calculated on anhydrous) ..... Min. 98 %
IR Spectrum ..... Passes test
Loss on drying (100°C) ..... Max. 1.0 %
PO_4 (Phosphate) ..... Max. 10 ppm
Fe (Iron) ..... Max. 1 ppm
Absorbance (220-350 nm) (3 %) ..... Max. 0.1
Assay (C_{12} compounds)(calc.on anhydrous) Min. 98 %
Insolubility in water ..... Max. 30 ppm
Cl (Chloride) ..... Max. 100 ppm
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
108073J	100 g	Plastic bottle for solids

Sodium dodecyl sulphate (SDS) GPR RECTAPUR®

Assay (calculated on anhydrous) ..... Min. 98 %
Cl (Chloride) ..... Max. 0.1 %
PO_4 (Phosphate) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27926.238	250 g	Plastic bottle for solids
27926.295	1 kg	Plastic bottle for solids

Sodium dodecyl sulphate (SDS) Gen-Apex® Molecular biology grade

Assay (calculated on anhydrous) ..... Min. 98.5 %
Colouration (0.2 mol/l; water) ..... Max. 10 APHA
Heavy metals (as Pb) ..... Max. 10 ppm
Transmittance (230 nm) (0.2 mol/l) ..... Min. 68 %
Transmittance (260 nm) (0.2 mol/l) ..... Min. 80 %
Transmittance (280 nm) (0.2 mol/l) ..... Min. 90 %
Transmittance (320 nm) (0.2 mol/l) ..... Min. 95 %

Cat. No.	Pk	Pack type
33629.266	500 g	Plastic bottle for solids

Sodium dodecyl sulphate (SDS), proteomics grade

Anionic detergent. Strong detergent utilised in lysis buffers for the complete disruption of membranes and denaturation of proteins.

Abs.@260nm (3%, Water) 0.1
Abs.@280nm (3%, Water) 0.1
Chloride ..... 0.1 %
Copper ..... 0.0005 %
DNase ..... NONE
Heavy Metals (as Pb) ..... 0.0005 %
Identification ..... NONE
Iron ..... 0.0001 %
Phosphate ..... 0.0005 %
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
M107-100G	100 g	Plastic bottle for solids
M107-250G	250 g	Plastic bottle for solids
M107-500G	500 g	Plastic bottle for solids
M107-1KG	1 kg	Plastic bottle for solids

Sodium dodecyl sulphate (SDS) for biotechnology

Abs.@260 nm (3%, Water) 0.1
Abs.@280 nm (3%, Water) 0.1
Chloride ..... 0.1 %
Copper ..... 0.0005 %
DNase ..... NONE
Heavy Metals (as Pb) ..... 0.0005 %
Identification ..... NONE
Iron ..... 0.0001 %
Phosphate ..... 0.0005 %
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
0227-100G	100 g	Plastic bottle for solids
0227-250G	250 g	Plastic bottle for solids
0227-500G	500 g	Plastic bottle for solids
0227-1KG	1 kg	Plastic bottle for solids
0227-5KG	5 kg	Bucket (Plastic)

Sodium dodecyl sulphate (SDS) Molecular biology grade

Assay ..... Min. 99 %
Assay (C10 compounds) ..... Max. 1 %
Assay (C12 compounds) ..... Min. 98 %
Assay (C14 compounds) ..... Max. 1 %
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Absorbance (260 nm) (0.1 mol/l) ..... Max. 0.05
Absorbance (280 nm) (0.1 mol/l) ..... Max. 0.05
Heavy metals (as Pb) ..... Max. 0.0005 %
pH (10 %) ..... 6 to 7.5
Solubility in ethanol ..... Passes test
Water ..... Max. 0.05 %
Cl (Chloride) ..... Max. 0.005 %
PO_4 (Phosphate) ..... Max. 0.0001 %
Pb (Lead) ..... Max. 0.0001 %

Cat. No.	Pk	Pack type
444462R	50 g	Glass bottle for solids
444464T	500 g	Glass bottle for solids

Sodium dodecyl sulphate (SDS) TECHNICAL

Assay ..... Min. 95 %
Sodium chloride ..... Max. 1.0 %
Sodium sulphate ..... Max. 2.5 %

Cat. No.	Pk	Pack type
83886.290	1 kg	Plastic bottle for solids

Sodium dodecyl sulphate (SDS) in aqueous solution

CAS 151-21-3
EINECS: 205-788-1

$CH_3(CH_2)_{11}OSO_3Na$
Density: 1 to 1.1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sodium dodecyl sulphate (SDS) 200 g/l in aqueous solution, proteomics grade

Strong detergent utilised in lysis buffers for the complete disruption of membranes and denaturation of proteins.

DNase ..... NONE
pH @25 °C ..... 5.0 - 8.0
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
M112-200ML	200 ml	Plastic bottle
M112-500ML	500 ml	Plastic bottle

Sodium dodecyl sulphate (SDS) 200 g/l in aqueous solution for biotechnology

Conductivity ..... 2 2800 - 27600 umhos
pH @25 °C ..... 5.0 - 8.0

Cat. No.	Pk	Pack type
0837-200ML	200 ml	Plastic bottle
0837-500ML	500 ml	Plastic bottle

Sodium dodecyl sulphate (SDS) 100 g/l in aqueous solution Electran® for electrophoresis

Prepared from 10807 SDS AnalaR NORMAPUR®

Assay (W/V) (at preparation) ..... 9.8 to 10.2 %

Cat. No.	Pk	Pack type
444062F	100 ml	Glass bottle

Sodium dodecyl sulphate (SDS) 100 g/l in aqueous solution, ultrapure

Colour (APHA) 5

Cat. No.	Pk	Pack type
E719-100ML	100 ml	Plastic bottle

Sodium dodecyl sulphate (SDS) 100 g/l in aqueous solution, proteomics grade

Strong detergent utilised in lysis buffers for the complete disruption of membranes and denaturation of proteins.

Colour (APHA) 5
DNase ..... NONE
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
M111-100ML	100 ml	Plastic bottle

Sodium ethanedioate

See di-Sodium oxalate p.452

Sodium ethylmercurithiosalicylate

See Thiomersal p.504

Sodium feredetate

See EDTA ferric monosodium salt p.161

Sodium fluoride

Danger
H301 H319 H315
EUH032
P280 P302+P352 P305+P351+P338 P309+P311

CAS 7681-49-4
Index 009-004-00-7
EINECS: 231-667-8
UN: 1690
ADR 6.1,III

NaF
M.W. 41.99 g/mol
Density: 2.8 g/cm³ (20 °C)
Boiling Pt: 1700 °C (1013 hPa)
Melting Pt: 993 °C
Storage Temperature: Ambient temperature

Sodium fluoride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance) 99.0 to 100.5 %
Identification A ..... Passes test Ph.Eur.
Identification C ..... Passes test Ph.Eur.
Acidity ..... Max. 0.025 meq/g
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (150°C) ..... Max. 0.2 %
SiF_6 (Hexafluorosilicate) ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 100 ppm
K (Potassium) ..... Max. 0.02 %
Conforms to Reag. Ph.Eur. ..... Passes test
Appearance of solution ..... Passes test Ph.Eur.
Identification B ..... Passes test Ph.Eur.
Solution S ..... Passes test Ph.Eur.
Alkalinity ..... Max. 0.025 meq/g
Insolubility in water ..... Max. 100 ppm
Cl (Chloride) ..... Max. 30 ppm
SO_3 (Sulphite) ..... Max. 50 ppm
Fe (Iron) ..... Max. 20 ppm
Conforms to ACS ..... Passes test

Cat. No.	Pk	Pack type
27860.231	250 g	Plastic bottle for solids
27860.297	1 kg	Plastic bottle for solids

Sodium fluoride Ph. Eur.

Assay (calculated on dried substance) ..... 98.5 to 100.5 %
Appearance ..... White powder
Identification A ..... Passes test
Identification B ..... Passes test
Identification C ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
Acidity or alkalinity ..... Passes test
Cl (Chloride) ..... Max. 200 ppm
Fluorosilicates ..... Passes test
SO_4 (Sulphate) ..... Max. 200 ppm
Loss on drying (130°C) ..... Max. 0.5 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
27859.293	1 kg	Plastic bottle for solids
27859.464	25 kg	Bucket (Plastic)

Sodium fluoride, purified

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
27858.290	1 kg	Plastic bottle for solids

Sodium formate

Formic acid sodium salt

CAS 141-53-7
EINECS: 205-488-0

HCO_2Na
M.W. 68.01 g/mol
Density: 1.919 g/cm³ (20 °C)
Melting Pt: 257.31 °C
Storage Temperature: Ambient temperature

NEW Sodium formate AnalaR NORMAPUR®

Assay	Min. 99.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 10 ppm
SO_4 (Sulphate)	Max. 10 ppm	Ca (Calcium)	Max. 50 ppm
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
84850.260	500 g	Plastic bottle for solids

NEW Sodium formate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 5 ppm
Cl (Chloride)	Max. 20 ppm
NH_4 (Ammonium)	Max. 20 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
27869.297	1 kg	Plastic bottle for solids

Sodium D-gluconate

D-Gluconic acid sodium salt

CAS 527-07-1
EINECS: 208-407-7

$HOH_2C(CH(OH))_4COONa$
M.W. 218.14 g/mol
Melting Pt: 170 to 175 °C
Storage Temperature: Ambient temperature

Sodium D-gluconate TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
27871.295	1 kg	Plastic bottle for solids

Sodium-L(+)-glutamate monohydrate

(S)-(+)-1-Aminopropane-1,3-dicarboxylic acid sodium salt monohydrate , (S)-(+)-2-Aminopentanedioic acid sodium salt monohydrate , (S)-(+)-Sodium glutamate monohydrate , (S)-(+)-Glutamic acid sodium salt monohydrate , (S)-(+)-α-Glutamic acid sodium salt monohydrate , L(+)-1-Aminopropane-1,3-dicarboxylic acid sodium salt monohydrate , L(+)-2-Aminopentanedioic acid sodium salt monohydrate , L(+)-Glutamic acid sodium salt monohydrate , L(+)-α-Glutamic acid sodium salt monohydrate

CAS 6106-04-3
EINECS: 240-313-1
Flash Pt: Min. 225 °C

$C_5H_8NNaO_4.H_2O$
M.W. 187.13 g/mol
Melting Pt: 225 to 240 °C
Storage Temperature: Ambient temperature

Sodium-L(+)-glutamate monohydrate TECHNICAL

Assay	Min. 99 %

Cat. No.	Pk	Pack type
27872.298	1 kg	Plastic bottle for solids

di-Sodium β-glycerophosphate pentahydrate

CAS 13408-09-8
EINECS: 212-464-3

$C_3H_7Na_2O_6P·5H_2O$
M.W. 306.11 g/mol

di-Sodium β-glycerophosphate pentahydrate GPR RECTAPUR®

Assay (calculated on anhydrous)	Min. 98 %
Alkalinity	Max. 0.15 meq/g
Heavy metals (as Pb)	Max. 20 ppm
Water	25.0 to 35.0 %
PO_4 (Phosphate)	Max. 0.1 %

Cat. No.	Pk	Pack type
27874.295	1 kg	Plastic bottle for solids

Sodium 1-heptanesulphonate

See 1-Heptanesulphonic acid sodium salt p.213

Sodium hexametaphosphate

CAS 10124-56-8
EINECS: 233-343-1

$Na_2P_6O_{18}$
M.W. 611.77 g/mol
Density: 1.25 g/cm³ (20 °C)
Melting Pt: 610 °C

Sodium hexametaphosphate, flake GPR RECTAPUR®

Substances insoluble in water	Max. 0.1 %
pH range	6.2 to 7.4
Hg (Mercury)	Max. 5 ppm
Pb (Lead)	Max. 5 ppm

Cat. No.	Pk	Pack type
301475H	2,5 kg	Glass bottle

Sodium 1-hexanesulphonate

See 1-Hexanesulphonic acid sodium salt p.216

Sodium hydrogen carbonate

Sodium bicarbonate

CAS 144-55-8
EINECS: 205-633-8

$NaHCO_3$
M.W. 84.01 g/mol
Density: 2.159 g/cm³ (20 °C)
Melting Pt: 270 °C
Storage Temperature: Ambient temperature

Sodium hydrogen carbonate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (calculated on dried substance)	99.7 to 100.3 %
Carbonates	Passes test Ph.Eur.
Identification B	Passes test Ph.Eur.
Solution S	Passes test Ph.Eur.
Insolubility in water	Max. 0.015 %
Reducing substances (as I)	Max. 65 ppm
Total S (as SO_4)	Max. 30 ppm
NH_4 (Ammonium)	Max. 5 ppm
SO_4 (Sulphate)	Max. 20 ppm
Ca (Calcium)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm
Mg (Magnesium)	Max. 50 ppm
Conforms to ACS	Passes test
Appearance of solution	Passes test Ph.Eur.
Identification A	Passes test Ph.Eur.
Identification C	Passes test Ph.Eur.
Heavy metals (as Pb)	Max. 5 ppm
Loss on drying	Max. 0.2 %
Total N (Nitrogen)	Max. 5 ppm
Cl (Chloride)	Max. 30 ppm
PO_4 (Phosphate)	Max. 10 ppm
As (Arsenic)	Max. 2 ppm
Cu (Copper)	Max. 2 ppm
K (Potassium)	Max. 50 ppm
Pb (Lead)	Max. 5 ppm
Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
27778.236	250 g	Plastic bottle for solids
27778.260	500 g	Plastic bottle for solids
27778.293	1 kg	Plastic bottle for solids
27778.360	5 kg	Plastic bottle for solids
27778.460	25 kg	Cardboard carton

Sodium hydrogen carbonate Ph. Eur.

Assay	99.0 to 101.0 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
CO_3 (Carbonate)	Passes test
Cl (Chloride)	Max. 150 ppm
SO_4 (Sulphate)	Max. 150 ppm
NH_4 (Ammonium)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm
Ca (Calcium)	Max. 100 ppm
Fe (Iron)	Max. 20 ppm
Heavy metals (as Pb)	Max. 10 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27775.293	1 kg	Plastic bottle for solids
27775.362	5 kg	Plastic bottle for solids
27775.464	25 kg	Bucket (Plastic)

Sodium hydrogen carbonate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27776.296	1 kg	Plastic bottle for solids
27776.365	5 kg	Plastic bottle for solids
27776.460	25 kg	Bucket (Plastic)

Sodium hydrogen carbonate TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
27780.291	1 kg	Plastic bottle for solids
27780.360	5 kg	Bucket (Plastic)

Sodium hydrogen carbonate in aqueous solution

CAS 144-55-8

EINECS: 205-633-8

$NaHCO_3$

Storage Temperature: Ambient temperature

Sodium hydrogen carbonate 0.35% in aqueous solution AVS TITRINORM® volumetric solution

Assay	0.30 to 0.40 %

Cat. No.	Pk	Pack type
307212.2500	2,5 l	Plastic bottle

Sodium hydrogen carbonate 0.5 mol/l in aqueous solution Reag. Ph. Eur. 1081301

Cat. No.	Pk	Pack type
87932.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

di-Sodium hydrogen phosphate

Sodium phosphate dibasic , di-Sodium hydrogen orthophosphate

CAS 7558-79-4

EINECS: 231-448-7

Na_2HPO_4

M.W. 141.96 g/mol

Density: 1.53 g/cm³ (20 °C)

Melting Pt: 250 °C

Storage Temperature: Ambient temperature

di-Sodium hydrogen phosphate, anhydrous AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 0.2 %
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 10 ppm
Conforms to Reag. Ph.Eur.	Passes test
pH (25°C; 5 %)	8.7 to 9.3
Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 10 ppm
Cu (Copper)	Max. 3 ppm
K (Potassium)	Max. 100 ppm
Conforms to ACS	Passes test

Cat. No.	Pk	Pack type
102494C	500 g	Plastic bottle for solids
102495D	2,5 kg	Plastic bottle for solids
10249LT	25 kg	Cardboard carton

di-Sodium hydrogen phosphate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
28026.260	500 g	Plastic bottle for solids
28026.292	1 kg	Plastic bottle for solids
28026.361	5 kg	Plastic bottle for solids
28026.460	25 kg	Bucket (Plastic)

di-Sodium hydrogen phosphate, anhydrous Electran® Molecular biology grade

Appearance	White powder
Assay (acidimetric)	Min. 99.5 %
Cl (Chloride)	Max. 0.005 %
Heavy metals (as Pb)	Max. 0.001 %
Absorbance (260 nm) (0.1 mol/l)	Max. 0.05
Absorbance (280 nm) (0.1 mol/l)	Max. 0.05
DNases (exo- and endonucleases)	Not detected
RNases	Not detected
Proteases	Not detected

Cat. No.	Pk	Pack type
444423K	250 g	Plastic bottle for solids
444425M	1 kg	Glass bottle for solids

di-Sodium hydrogen phosphate dihydrate

Sodium monohydrogen phosphate dihydrate , Sodium phosphate dibasic dihydrate , Sorensen's salt , di-Sodium hydrogen orthophosphate dihydrate

CAS 10028-24-7

EINECS: 231-448-7

$Na_2HPO_4 \cdot 2H_2O$

M.W. 177.99 g/mol
Density: 2.1 g/cm³ (20 °C)
Melting Pt: 92.5 °C
Storage Temperature: Ambient temperature

di-Sodium hydrogen phosphate dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Identification	Passes test
Solution in water	Passes test	pH (20°C; 5 %)	9.0 to 9.2
Heavy metals (as Pb)	Max. 10 ppm	Total N (Nitrogen)	Max. 10 ppm
Cl (Chloride)	Max. 10 ppm	SO_4 (Sulphate)	Max. 50 ppm
As (Arsenic)	Max. 0.5 ppm	Cu (Copper)	Max. 3 ppm
Fe (Iron)	Max. 10 ppm	K (Potassium)	Max. 50 ppm
Pb (Lead)	Max. 10 ppm	Conforms to BDH 10383	Passes test

Cat. No.	Pk	Pack type
28029.235	250 g	Plastic bottle for solids
28029.260	500 g	Plastic bottle for solids
28029.292	1 kg	Plastic bottle for solids
28029.320	2,5 kg	Plastic bottle for solids
28029.460	25 kg	Cardboard carton

di-Sodium hydrogen phosphate dihydrate Ph. Eur., USP

Assay (calculated on dried substance)	98.0 to 100.5 %
Appearance	White/almost white powder
Identification A	Passes test Ph. Eur.
Identification A	Passes test USP
Identification B	Passes test Ph. Eur.
Identification B	Passes test USP
Identification C	Passes test Ph. Eur.
Identification D	Passes test Ph. Eur.
Solution S	Passes test Ph. Eur.
Appearance of solution	Passes test Ph. Eur.
Insoluble substances	Max. 0.4 %
Reducing substances	Passes test Ph. Eur.
Monosodium phosphate	Max. 2.5 %
Cl (Chloride)	Max. 400 ppm
SO_4 (Sulphate)	Max. 0.1 %
As (Arsenic)	Max. 4 ppm
Fe (Iron)	Max. 40 ppm
Heavy metals (as Pb)	Max. 20 ppm
Loss on drying (130°C)	19.5 to 21.0 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
87010.290	1 kg	Plastic bottle for solids
87010.360	5 kg	Bucket (Plastic)
87010.460	25 kg	Bucket (Plastic)

di-Sodium hydrogen phosphate dihydrate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.05 %
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
28040.291	1 kg	Plastic bottle for solids

di-Sodium hydrogen phosphate dodecahydrate

Sodium monohydrogen phosphate dodecahydrate , Sodium phosphate dibasic dodecahydrate , di-Sodium hydrogen orthophosphate dodecahydrate

CAS 10039-32-4

EINECS: 231-448-7

$Na_2HPO_4 \cdot 12H_2O$

M.W. 358.14 g/mol
Density: 1.52 g/cm³ (20 °C)
Melting Pt: 35 °C
Storage Temperature: Ambient temperature

di-Sodium hydrogen phosphate dodecahydrate AnalaR NORMAPUR® analytical reagent

Assay	99.0 to 101.0 %	pH (20°C; 5 %)	9.0 to 9.4
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 5 ppm
SO_4 (Sulphate)	Max. 50 ppm	As (Arsenic)	Max. 0.5 ppm
Cu (Copper)	Max. 2 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 100 ppm	Pb (Lead)	Max. 5 ppm
Zn (Zinc)	Max. 1 ppm		

Cat. No.	Pk	Pack type
28028.260	500 g	Plastic bottle for solids
28028.298	1 kg	Plastic bottle for solids
28028.367	5 kg	Plastic bottle for solids

di-Sodium hydrogen phosphate dodecahydrate Ph. Eur.

Assay	98.5 to 102.5 %
Appearance	Colourless crystals
Identification A	Passes test
Identification C	Passes test
Identification D	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Reducing substances	Passes test
Monosodium phosphate	Max. 2.5 %
Cl (Chloride)	Max. 200 ppm
SO_4 (Sulphate)	Max. 500 ppm
As (Arsenic)	Max. 2 ppm
Fe (Iron)	Max. 20 ppm
Heavy metals (as Pb)	Max. 10 ppm
Water	57.0 to 61.0 %
Residual solvents	Unlikely by manuf.process

Cat. No.	Pk	Pack type
28035.293	1 kg	Plastic bottle for solids
28035.362	5 kg	Plastic bottle for solids

di-Sodium hydrogen phosphate dodecahydrate, purified

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
28020.292	1 kg	Plastic bottle for solids
28020.361	5 kg	Plastic bottle for solids
28020.460	25 kg	Bucket (Plastic)

di-Sodium hydrogen phosphate dodecahydrate Gen-Apex® Molecular biology grade

Assay	Min. 99 %
Colouration (0.1 mol/l; water)	Max. 10 APHA
Heavy metals (as Pb)	Max. 5 ppm
Transmittance (230 nm)	Min. 90 %
Transmittance (260 nm)	Min. 95 %
Transmittance (280 nm)	Min. 97 %
Transmittance (320 nm)	Min. 99 %

Cat. No.	Pk	Pack type
33617.265	500 g	Plastic bottle for solids

di-Sodium hydrogen phosphate dodecahydrate in aqueous solution

CAS 10039-32-4

EINECS: 231-448-7

$Na_2HPO_4 \cdot 12H_2O$

M.W. 358.14 g/mol

Storage Temperature: Ambient temperature

NEW

di-Sodium hydrogen phosphate dodecahydrate 9% in aqueous solution Reag. Ph. Eur. 1033301

Cat. No.	Pk	Pack type
87825.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydrogen sulphate monohydrate

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 10034-88-5

Index 016-046-00-X

EINECS: 231-665-7

UN: 3260

ADR 8,III

$NaHSO_4 \cdot H_2O$

M.W. 138.08 g/mol

Density: 2.1 g/cm³ (20 °C)

Melting Pt: 183 °C

Storage Temperature: Ambient temperature

Sodium hydrogen sulphate monohydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99 %	Heavy metals (as Pb)	Max. 5 ppm
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 10 ppm
PO_4 (Phosphate)	Max. 5 ppm	Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
28120.231	250 g	Plastic bottle for solids
28120.297	1 kg	Plastic bottle for solids

Sodium hydrogen sulphite in aqueous solution

Warning
H302
EUH031
P301+P312

CAS 7631-90-5

Index 016-064-00-8

EINECS: 231-548-0

UN: 2693

ADR 8,III

$NaHSO_3$

Sodium hydrogen sulphite 50% (w/v) in aqueous solution TECHNICAL

Assay (W/V)	Min. 50 %
Ionised chlorine	Max. 0.05 %

Cat. No.	Pk	Pack type
28132.298	1 l	Glass bottle
28132.367	5 l	Plastic bottle

Sodium hydroxide

Caustic soda

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-73-2

Index 011-002-00-6

EINECS: 215-185-5

UN: 1823

ADR 8,II

NaOH

M.W. 40 g/mol

Density: 2.13 g/cm³ (20 °C)

Boiling Pt: 1390 °C (1013 hPa)

Melting Pt: 323 °C

Storage Temperature: Ambient temperature

Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	99.0 to 100.5 %	Appearance of solution	Passes test Ph.Eur.
Identification B	Passes test Ph.Eur.	Solution in water	Passes test
Solution S	Passes test Ph.Eur.	pH (20°C; 0.01 %)	Min. 11.0
Heavy metals (as Ag)	Max. 20 ppm	Heavy metals (as Pb)	Max. 5 ppm
Total N (Nitrogen)	Max. 3 ppm	CO_3 (as Na_2CO_3)	Max. 1.0 %
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 5 ppm
SiO_4 (as SiO_2)	Max. 10 ppm	SO_4 (Sulphate)	Max. 5 ppm
As (Arsenic)	Max. 1 ppm	Al (Aluminium)	Max. 5 ppm
Ca (Calcium)	Max. 5 ppm	Cu (Copper)	Max. 2 ppm
Fe (Iron)	Max. 5 ppm	Hg (Mercury)	Max. 0.1 ppm
K (Potassium)	Max. 0.02 %	Mg (Magnesium)	Max. 5 ppm
Ni (Nickel)	Max. 5 ppm	Pb (Lead)	Max. 5 ppm
Zn (Zinc)	Max. 10 ppm	Conforms to BDH 10252	Passes test
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
28244.262	500 g	Plastic bottle for solids
28244.295	1 kg	Plastic bottle for solids
28244.364	5 kg	Plastic bottle for solids
28244.466	25 kg	Bucket (Plastic)

Sodium hydroxide, pellets AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent (max. 0.0002% K)

Assay	Min. 98.5 %	Total N (Nitrogen)	Max. 3 ppm
Cl (Chloride)	Max. 5 ppm	CO_3 (as Na_2CO_3)	Max. 1.5 %
PO_4 (Phosphate)	Max. 1 ppm	SiO_4 (as SiO_2)	Max. 5 ppm
SO_4 (Sulphate)	Max. 5 ppm	Al (Aluminium)	Max. 2 ppm
Ca (Calcium)	Max. 5 ppm	Cd (Cadmium)	Max. 0.1 ppm
Cu (Copper)	Max. 0.5 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 2 ppm	Mn (Manganese)	Max. 0.5 ppm
Ni (Nickel)	Max. 1 ppm	Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.2 ppm		

Cat. No.	Pk	Pack type
1737.1000	1 kg	Plastic bottle for solids

Sodium hydroxide, pellets Ph. Eur.

Assay (calculated as NaOH)	97.0 to 100.5 %
Appearance	White pastilles
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (20°C; 0.01 %)	Min. 11.0 %
CO_3 (as Na_2CO_3)	Max. 2.0 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm
Fe (Iron)	Max. 10 ppm
Heavy metals (as Pb)	Max. 20 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
28248.298	1 kg	Plastic bottle for solids
28248.367	5 kg	Plastic bottle for solids
28248.460	25 kg	Bucket (Plastic)

Sodium hydroxide, pellets GPR RECTAPUR®

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 5 ppm
Total N (Nitrogen) ..... Max. 5 ppm
CO_3 (as Na_2CO_3) ..... Max. 1.0 %
Cl (Chloride) ..... Max. 50 ppm
PO_4 (Phosphate) ..... Max. 20 ppm
SiO_4 (as SiO_2) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 10 ppm
Fe (Iron) ..... Max. 10 ppm
K (Potassium) ..... Max. 0.1 %
Pb (Lead) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
28245.265	500 g	Plastic bottle for solids
28245.298	1 kg	Plastic bottle for solids
28245.320	2,5 kg	Plastic bottle for solids
28245.367	5 kg	Plastic bottle for solids
28245.460	25 kg	Bucket (Plastic)

Sodium hydroxide, pellets, proteomics grade

Chloride ..... 0.005 %
DNase ..... NONE
Heavy Metals ..... 0.002 %
Iron ..... 0.001 %
Mercury ..... 0.1 ppm
Nickel ..... 0.001 %
Nitrogen Compounds ..... 0.001 %
Phosphate ..... 0.001 %
Potassium ..... 0.02 %
Protease ..... NONE
Purity ..... 97.0 %
RNase ..... NONE
Sodium Carbonate ..... 1.0 %
Sulfate ..... 0.003 %

Cat. No.	Pk	Pack type
M137-500G	500 g	Plastic bottle for solids
M137-1KG	1 kg	Plastic bottle for solids

Sodium hydroxide, pellets Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52111071.	300 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Sodium hydroxide, shots TECHNICAL

Assay ..... Min. 97.0 %
Sodium carbonate ..... Max. 1.5 %

Cat. No.	Pk	Pack type
28240.292	1 kg	Plastic bottle for solids
28240.361	5 kg	Bucket (Plastic)
28240.460	25 kg	Bucket (Plastic)

Sodium hydroxide (5 - < 60%) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-73-2
EINECS: 215-185-5
UN: 1824
ADR 8,II

NaOH
Density: 1.53 g/cm³ (20 °C)
Boiling Pt: 119 to 135 °C (1013 hPa)
Melting Pt: 9 to 10 °C
Storage Temperature: Ambient temperature

Sodium hydroxide 50% in aqueous solution Reag. Ph. Eur. 1081406 carbonate free

Cat. No.	Pk	Pack type
87938.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydroxide 50% in aqueous solution GPR RECTAPUR®

Assay ..... 47 to 51 %
Sodium carbonate ..... Max. 0.5 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 50 ppm
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
84522.320	2,5 l	Plastic bottle

Sodium hydroxide 50% in aqueous solution TECHNICAL

Assay ..... 47 to 51 %

Cat. No.	Pk	Pack type
28265.322	2,5 l	Plastic bottle
28265.366	5 l	Plastic bottle
28265.446	20 l	Plastic drum

Sodium hydroxide 50% (w/v) in aqueous solution GPR RECTAPUR®

Assay (W/V) ..... 48.0 to 50.5 %

Cat. No.	Pk	Pack type
191543M	1 l	Plastic bottle
191546P	5 l	Plastic container
19154CV	25 l	Plastic drum

Sodium hydroxide 35% in aqueous solution GPR RECTAPUR®

Assay ..... 34 to 36 %
Density (20/4) ..... 1.370 to 1.390
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 200 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
28224.296	1 l	Plastic bottle
28224.365	5 l	Plastic bottle
28224.445	20 l	Plastic drum

Sodium hydroxide 35% in aqueous solution TECHNICAL

Assay ..... Min. 34 %
Heavy metals (as Pb) ..... Max. 50 ppm
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
28221.296	1 l	Plastic bottle
28221.365	5 l	Plastic bottle
28221.445	20 l	Plastic drum
28221.558	200 l	Plastic drum

Sodium hydroxide 32% in aqueous solution AnalaR NORMAPUR® analytical reagent, for nitrogen analysis

Assay ..... Min. 32 %
Total N (Nitrogen) ..... Max. 1 ppm
CO_3 (as Na_2CO_3) ..... Max. 1.0 %
SO_4 (Sulphate) ..... Max. 30 ppm
Fe (Iron) ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 20 ppm
SiO_4 (as SiO_2) ..... Max. 50 ppm
Al (Aluminium) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
28225.290	1 l	Plastic bottle
28225.324	2,5 l	Plastic bottle
28225.360	5 l	Plastic bottle
28225.415	10 l	Plastic drum

Sodium hydroxide 32% in aqueous solution GPR RECTAPUR®, pure for nitrogen analysis

Assay ..... Min. 32 %
Total N (Nitrogen) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
9913.5000	5 l	Plastic container
9913.9010	10 l	Plastic drum

Sodium hydroxide 30% in aqueous solution AnalaR NORMAPUR® analytical reagent

Assay ..... 30.0 to 31.0 %
Density (20/4) ..... 1.320 to 1.340
Silica ..... Max. 5 ppm
Cl (Chloride) ..... Max. 15 ppm
PO_4 (Phosphate) ..... Max. 1 ppm
Al (Aluminium) ..... Max. 2 ppm
Ca (Calcium) ..... Max. 2 ppm
Co (Cobalt) ..... Max. 0.3 ppm
Cu (Copper) ..... Max. 0.3 ppm
Hg (Mercury) ..... Max. 0.02 ppm
Mg (Magnesium) ..... Max. 2 ppm
Ni (Nickel) ..... Max. 0.6 ppm
Zn (Zinc) ..... Max. 0.3 ppm
Total alkalies ..... 30.0 to 31.0 %
Heavy metals (as Pb) ..... Max. 2 ppm
Total N (Nitrogen) ..... Max. 10 ppm
CO_3 (as Na_2CO_3) ..... Max. 1.0 %
SO_4 (Sulphate) ..... Max. 10 ppm
Ba (Barium) ..... Max. 2 ppm
Cd (Cadmium) ..... Max. 0.1 ppm
Cr (Chromium) ..... Max. 2 ppm
Fe (Iron) ..... Max. 2 ppm
K (Potassium) ..... Max. 30 ppm
Mn (Manganese) ..... Max. 0.1 ppm
Pb (Lead) ..... Max. 0.1 ppm

Cat. No.	Pk	Pack type
28226.293	1 l	Plastic bottle
28226.327	2,5 l	Plastic bottle
28226.362	5 l	Plastic bottle
28226.442	20 l	Plastic drum

Sodium hydroxide 30% in aqueous solution GPR RECTAPUR®

Assay ..... 30 to 32 %
Density (20/4) ..... 1.320 to 1.340
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate) ..... Max. 100 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
28222.290	1 l	Plastic bottle
28222.368	5 l	Plastic bottle
28222.448	20 l	Plastic drum

Sodium hydroxide 30% (w/w; 40% w/v) in aqueous solution GPR RECTAPUR® low in nitrogen

Assay (W/V) ..... 38.6 to 41.7 %
Appearance ..... Clear colourless liquid
Identification (Na) ..... Passes test
CO_3 (as Na_2CO_3) ..... Max. 0.2 %
Total N (Nitrogen) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
191533K	1 l	Plastic bottle
191536N	5 l	Plastic bottle
191537X	10 l	Bag-in-box (Cubitainer)
19153LF	25 l	Plastic drum
19153EB	155 l	Metal drum

A polyethylene tap (product 33269 2K) can be fitted to the 5 litre pack.

Sodium hydroxide 30% in aqueous solution TECHNICAL

Assay ..... Min. 30 %
Heavy metals (as Pb) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
28217.292	1 l	Plastic bottle
28217.361	5 l	Plastic bottle
28217.441	20 l	Plastic drum
28217.554	200 l	Plastic drum

Sodium hydroxide 20% in aqueous solution Reag. Ph. Eur. 1081401

Cat. No.	Pk	Pack type
87933.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydroxide concentrated aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-73-2
EINECS: 215-185-5
UN: 1824
ADR 8,II

NaOH
Density: 1.327 g/cm³ (20 °C)
Boiling Pt: Min. 105 °C (1013 hPa)
Storage Temperature: Ambient temperature

Sodium hydroxide 5 mol concentrated aqueous solution CLININORM®

(CREUTZFELD-JAKOB disease)

Dilute 1 volume in 4 volumes of water

Identification ..... Passes test
Titer ..... 4.95 to 5.05 mol/l

Cat. No.	Pk	Pack type
31625.293	1 l	Plastic bottle
31625.362	5 l	Plastic bottle

Contains Bromothymol blue indicator

Sodium hydroxide 1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C) ..... 0.995 to 1.005 mol/l
Conforms to BDH 18042 ..... Passes test

Cat. No.	Pk	Pack type
32066.606	170 ml	Plastic ampoule

NEW Sodium hydroxide 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.4998 to 0.5002 mol/l

Cat. No.	Pk	Pack type
84597.600	210 ml	Plastic ampoule

Sodium hydroxide 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C) ..... 0.0995 to 0.1005 mol/l
Conforms to BDH 18043 ..... Passes test

Cat. No.	Pk	Pack type
32067.600	60 ml	Plastic ampoule

NEW Sodium hydroxide 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
84596.600	60 ml	Plastic ampoule

Sodium hydroxide (1.3 - 12 mol/l; 1.3 - 12 N) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 1310-73-2
EINECS: 215-185-5
UN: 1824
ADR 8,II

NaOH
Density: Max. 1.11 g/cm³ (20 °C)
Boiling Pt: 109 °C (1013 hPa)
Storage Temperature: Ambient temperature

Sodium hydroxide 10 mol/l (10 N) in aqueous solution Reag. Ph. Eur. 1081404

Cat. No.	Pk	Pack type
87936.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydroxide 10 mol/l (10 N) in aqueous solution VOLUSOL® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 9,98 to 10,02 mol/l

Cat. No.	Pk	Pack type
310933.1000	1 l	Plastic bottle

Sodium hydroxide 5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 4.99 to 5.01 mol/l

Cat. No.	Pk	Pack type
31624.290	1 l	Plastic bottle
31624.320	2,5 l	Plastic bottle

Sodium hydroxide 4 mol/l (4 N) in aqueous solution AVS TITRINORM® volumetric solution low in carbonate

Titer (20°C; real value 0.2 % accuracy) ..... 3.992 to 4.008 mol/l

Cat. No.	Pk	Pack type
191373M	1 l	Plastic bottle
191376P	5 l	Plastic bottle

Sodium hydroxide 4 mol/l (4 N) in aqueous solution VOLUSOL® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 3.992 to 4.008 mol/l

Cat. No.	Pk	Pack type
306452.2500	2,5 l	Plastic bottle

Sodium hydroxide 2 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1081402

Cat. No.	Pk	Pack type
87934.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydroxide 2 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 1.996 to 2.004 mol/l

Cat. No.	Pk	Pack type
98108.290	1 l	Plastic bottle
98108.360	5 l	Plastic bottle

Sodium hydroxide 1.2 mol/l (1.2 N) in aqueous solution

Titer ..... 1.185 to 1.215 mol/l

Cat. No.	Pk	Pack type
5329.6025	25 l	Plastic drum

Sodium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l
Conforms to BDH 19139 ..... Passes test

Cat. No.	Pk	Pack type
31627.290	1 l	Plastic bottle
31627.368	5 l	Plastic bottle
31627.404	10 l	Bag-in-box (Cubitainer)

Sodium hydroxide (0.13 - < 0.55 mol/l; 0.13 - < 0.55 N) in aqueous solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 1310-73-2
EINECS: 215-185-5
UN: 1824
ADR 8,III

NaOH
Density: 1.02 g/cm³ (25 °C)
Boiling Pt: Min. 105 °C (1013 hPa)
Storage Temperature: Ambient temperature

Sodium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
31951.290	1 l	Plastic bottle
31951.370	5 l	Bag-in-box (Cubitainer)
31951.404	10 l	Bag-in-box (Cubitainer)

Sodium hydroxide 0.25 mol/l (0.25 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.2495 to 0.2505 mol/l

Cat. No.	Pk	Pack type
31956.296	1 l	Plastic bottle

Sodium hydroxide 0.2 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.1996 to 0.2004 mol/l

Cat. No.	Pk	Pack type
31952.293	1 l	Plastic bottle

Sodium hydroxide (< 0.13 mol/l; < 0.13 N) in aqueous solution

CAS 1310-73-2
EINECS: 215-185-5
UN: 1824
ADR 8,III

NaOH
Density: 1 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Sodium hydroxide 0.111 mol/l (0.111 N) in aqueous solution AVS TITRINORM® volumetric solution, for milk acidity analysis according to Dornic

Titer (20°C; real value 0.2 % accuracy) ..... 0.1109 to 0.1113 mol/l

Cat. No.	Pk	Pack type
31760.290	1 l	Plastic bottle
31760.368	5 l	Plastic container

Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l
Conforms to BDH 19145 ..... Passes test

Cat. No.	Pk	Pack type
31770.294	1 l	Plastic bottle
31770.363	5 l	Plastic bottle
31770.374	5 l	Bag-in-box (Cubitainer)
31770.408	10 l	Bag-in-box (Cubitainer)
31770.443	20 l	Plastic drum

Sodium hydroxide 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
31630.303	2 l	Plastic bottle

Sodium hydroxide 0.04 mol/l (0.04 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.03992 to 0.04008 mol/l

Cat. No.	Pk	Pack type
31769.290	1 l	Plastic bottle

Sodium hydroxide (< 0.125 mol/l; < 0.125 N) in ethanol (>80%)

Danger
H225
P210 P243 P280

CAS 1310-73-2
EINECS: 215-185-5
UN: 2924
ADR 3,II
Flash Pt: 14

NaOH
Storage Temperature: Ambient temperature

Sodium hydroxide 0.1 mol/l (0.1 N) in ethanol AVS TITRINORM®

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002

Cat. No.	Pk	Pack type
83891.260	500 ml	Glass bottle

Sodium hydroxide (< 0.125 mol/l; < 0.125 N) in methanol (>50%)

CAS 1310-73-2
EINECS: 215-185-5
UN: 3286
ADR 3,II

NaOH
Storage Temperature: Ambient temperature

Sodium hydroxide 0.005 mol/l (0.005 N) in methanol 50% Reag. Ph. Eur. 1081405

Cat. No.	Pk	Pack type
87937.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hydroxide 0.001 mol/l (0.001 N) in methanol 50% Reag. Ph. Eur. 1081403

Cat. No.	Pk	Pack type
87935.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium 3-hydroxy-4-(2-hydroxy-1-naphthylazo)-7-nitro-1-naphthalenesulphonate

See Eriochrome Black T p.171

Sodium hypochlorite (5 - 15% Cl_2) in aqueous solution

Danger
H314 H400
EUH031
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7681-52-9
EINECS: 231-668-3
UN: 1791
ADR 8,II

NaOCl
Density: 1.22 to 1.25 g/cm³ (20 °C)
Boiling Pt: 111 °C (1013 hPa)
Melting Pt: -30 to -20 °C
Storage Temperature: 2 - 8°C

Sodium hypochlorite 14% Cl_2 in aqueous solution GPR RECTAPUR®

Not being stabilized, this product normally loses strength during storage.

Assay (Active chlorine)(at filling) ..... Min. 14 %
Alkalinity ..... Max. 0.25 meq/g
Chlororometric degrees (Fr;at packaging) ..... Min. 42 °
Hg (Mercury) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27900.296	1 l	Plastic bottle
27900.365	5 l	Plastic bottle
27900.445	20 l	Plastic drum

Sodium hypochlorite 14% Cl_2 in aqueous solution TECHNICAL

Not being stabilized, this product normally loses strength during storage.

Assay (Active chlorine)(W/V)(at filling) ..... Min. 14 %
Identification ..... Passes test

Cat. No.	Pk	Pack type
90350.5000	5 l	Plastic container
90350.9025	25 l	Plastic drum

Sodium hypochlorite 12% Cl_2 in aqueous solution GPR RECTAPUR®

Not being stabilized, this product normally loses strength during storage.

Assay (Active chlorine)(W/V)(at filling)..... Min. 12 %
Alkalinity..... Max. 0.25 meq/g
Hg (Mercury)..... Max. 10 ppm

Cat. No.	Pk	Pack type
301696S	2,5 l	Plastic bottle

Not suitable for long transit

Sodium hypochlorite (< 5% Cl_2) in aqueous solution

CAS 7681-52-9
EINECS: 231-668-3

NaOCl
Storage Temperature: 2 - 8°C

Sodium hypochlorite 3.5% Cl_2 in aqueous solution GPR RECTAPUR®

Not being stabilized, this product normally loses strength during storage.

Assay (Active chlorine)(at filling)..... 3.5 to 5.0 %
Alkalinity..... Max. 0.05 meq/g
Chlororometric degrees (Fr;at packaging)..... 12 to 15 °

Cat. No.	Pk	Pack type
27896.291	1 l	Plastic bottle
27896.360	5 l	Plastic container

Sodium hypochlorite 2.5% Cl_2 in aqueous solution Reag. Ph. Eur. 1081600

Cat. No.	Pk	Pack type
87939.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium hypochlorite 1 mol/l in 0.1 mol/l sodium hydroxide aqueous solution

Danger
H314 H400
EUH031
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7681-52-9
EINECS: 231-668-3
UN: 1791
ADR 8,II

NaOCl
Density: 1 g/cm³ (25 °C)

Sodium hypochlorite 1 mol/l in 0.1 mol/l sodium hydroxide aqueous solution low in bromine

Titer (NaOCl) (at filling)..... 0.9 to 1.1 mol/l
Titer (NaOH)..... 0.09 to 0.11 mol/l
Bromine..... Max. 20 ppm

Cat. No.	Pk	Pack type
230393L	250 ml	Glass bottle
230395N	1 l	Glass bottle

Sodium hypophosphite monohydrate

See Sodium phosphinate monohydrate p.455

Sodium iodide

Warning
H400
P273

CAS 7681-82-5
EINECS: 231-679-3
UN: 3077
ADR 9,III

NaI
M.W. 149.89 g/mol
Density: 3.67 g/cm³ (20 °C)
Boiling Pt: 1300 °C (1013 hPa)
Melting Pt: 662 °C
Storage Temperature: Ambient temperature

Sodium iodide AnalaR NORMAPUR® analytical reagent

Assay..... Min. 99.5 %
Heavy metals (as Pb)..... Max. 5 ppm
Total N (Nitrogen)..... Max. 20 ppm
IO_3 (Iodate)..... Max. 3 ppm
Ca (Calcium)..... Max. 10 ppm
Fe (Iron)..... Max. 5 ppm
Ni (Nickel)..... Max. 1 ppm
pH (20°C; 5 %)..... 6.0 to 9.0
Loss on drying (100-105°C)..... Max. 0.5 %
Cl + Br (as Cl)..... Max. 100 ppm
SO_4 (Sulphate)..... Max. 20 ppm
Cu (Copper)..... Max. 1 ppm
K (Potassium)..... Max. 100 ppm

Cat. No.	Pk	Pack type
27913.234	250 g	Plastic bottle for solids
27913.260	500 g	Plastic bottle for solids

Sodium iodide Ph. Eur.

Assay (calculated on dried substance)..... 99.0 to 100.5 %
Appearance..... White crystalline powder
Identification A..... Passes test
Identification B..... Passes test
Solution S..... Passes test
Appearance of solution..... Passes test
Alkalinity..... Passes test
IO_3 (Iodate)..... Passes test
SO_4 (Sulphate)..... Max. 150 ppm
S_2O_3 (Thiosulphate)..... Passes test
Fe (Iron)..... Max. 20 ppm
Heavy metals (as Pb)..... Max. 10 ppm
Loss on drying (105°C)..... Max. 3.0 %
Residual solvents..... Passes test

Cat. No.	Pk	Pack type
27916.291	1 kg	Plastic bottle for solids
27916.360	5 kg	Plastic bottle for solids
27916.462	25 kg	Bucket (Plastic)

Sodium iodide GPR RECTAPUR®

Assay..... Min. 99 %
Heavy metals (as Pb)..... Max. 10 ppm
Cl + Br (as Cl)..... Max. 0.05 %
SO_4 (Sulphate)..... Max. 0.015 %
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
27915.231	250 g	Plastic bottle for solids
27915.297	1 kg	Plastic bottle for solids

DL-Sodium lactate in aqueous solution

CAS 72-17-3
EINECS: 200-772-0

$H_3CCH(OH)COONa$
Density: 1.27 to 1.32 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

DL-Sodium lactate 60% aqueous solution

DL-Sodium lactate 60% in aqueous solution, purified

Assay ..... 59.5 to 61.5 %
Heavy metals (as Pb) ..... Max. 10 ppm
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
27925.292	1 l	Glass bottle

DL-Sodium lactate 50% in aqueous solution Ph. Eur.

Assay (Sodium 2-hydroxypropanoate) ..... Min. 50.0 %
Appearance ..... Passes test
Identification A ..... Passes test
Identification B ..... Passes test
Solution S ..... Passes test
Appearance of solution ..... Passes test
pH ..... 6.5 to 9.0
Reducing sugars and sucrose ..... Passes test
Chlorides (calc. ref. to Na lactate) ..... Max. 50 ppm
Oxalates and phosphates ..... Passes test
Sulphates (calc. ref. to Na lactate) ..... Max. 100 ppm
Ba (Barium) ..... Passes test
Iron (calc. ref. to Na lactate) ..... Max. 10 ppm
Heavy metals (calc. ref. to Na lactate) ..... Max. 10 ppm
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
27927.298	1 l	Plastic bottle
27927.460	25 l	Plastic drum

Sodium lauryl sulphate

See Sodium dodecyl sulphate (SDS) p.439

Sodium mercaptoacetate (Sodium thioglycolate)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 367-51-1
EINECS: 206-696-4

$HSCH_2COONa$
M.W. 114.1 g/mol
Storage Temperature: -20°C

Sodium mercaptoacetate (Sodium thioglycolate), reagent grade

Melting Range ..... 300 °C
Purity ..... 80 %

Cat. No.	Pk	Pack type
0265-100G	100 g	Glass bottle

Sodium metaarsenite

Sodium dioxoarsenate

Danger
H301+H331 H410
P261 P273 P304+P340 P309+P310

CAS 7784-46-5
Index 033-002-00-5
EINECS: 232-070-5
UN: 2027
ADR 6.1,II

Restricted to professional users.

$NaAsO_2$
M.W. 129.91 g/mol
Density: 1.87 g/cm³ (20 °C)
Melting Pt: 615 °C
Storage Temperature: Ambient temperature

Sodium metaarsenite GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 100 ppm
$SO_4 + SO_3$ (as SO_4) ..... Max. 0.02 %
Fe (Iron) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
27687.265	500 g	Plastic bottle for solids

Sodium metaarsenite in aqueous solution

Danger
H301+H331 H410
P261 P273 P304+P340 P309+P310

CAS 7784-46-5
Index 033-002-00-5
EINECS: 232-070-5
UN: 1686
ADR 6.1,II

Restricted to professional users.

$NaAsO_2$
Storage Temperature: Ambient temperature

Sodium metaarsenite 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
31531.298	1 l	Plastic bottle

Sodium metabisulphite

Disodium disulphite , di-Sodium disulphite , Sodium disulphite , Sodium pyrosulphite

Danger
H302 H318
EUH031
P280 P305+P351+P338 P309+P310

CAS 7681-57-4
Index 016-063-00-2
EINECS: 231-673-0

$Na_2S_2O_5$
M.W. 190.11 g/mol
Density: 1.48 g/cm³ (20 °C)
Melting Pt: 150 °C
Storage Temperature: Ambient temperature

Sodium metabisulphite AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 98.0 %
Cl (Chloride) ..... Max. 100 ppm
Cu (Copper) ..... Max. 10 ppm
Zn (Zinc) ..... Max. 10 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
As (Arsenic) ..... Max. 0.5 ppm
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
27920.295	1 kg	Plastic bottle for solids

Sodium metabisulphite GPR RECTAPUR®

Assay ..... Min. 97 %
Heavy metals (as Pb) ..... Max. 50 ppm
Cl (Chloride) ..... Max. 0.02 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
27921.298	1 kg	Plastic bottle for solids
27921.367	5 kg	Plastic bottle for solids

Sodium metaperiodate

See Sodium periodate p.453

Sodium metaphosphate

CAS 10361-03-2

EINECS: 233-782-9

$NaPO_3$

M.W. 101.96 g/mol
Density: 2.54 g/cm³ (20 °C)
Melting Pt: 625 °C

Sodium metaphosphate GPR RECTAPUR®

di-Phosphorus pentoxide	Min. 60 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
27930.290	1 kg	Plastic bottle for solids

Sodium metaphosphate TECHNICAL

di-Phosphorus pentoxide	Min. 60 %

Cat. No.	Pk	Pack type
27880.296	1 kg	Plastic bottle for solids

di-Sodium metasilicate pentahydrate

Sodium metasilicate pentahydrate

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 10213-79-3

Index 014-010-00-8
EINECS: 229-912-9
UN: 3253
ADR 8,III

$Na_2SiO_3 \cdot 5H_2O$

M.W. 212.14 g/mol
Density: 1.749 g/cm³ (20 °C)
Melting Pt: 72.2 °C

di-Sodium metasilicate pentahydrate TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
28092.290	1 kg	Plastic bottle for solids

Sodium molybdate(VI) dihydrate

di-Sodium molybdate dihydrate , Sodium molybdenum oxide dihydrate , Molybdic acid sodium salt dihydrate , Molybdic acid, sodium salt dihydrate

CAS 10102-40-6

EINECS: 231-551-7

$Na_2MoO_4 \cdot 2H_2O$

M.W. 241.95 g/mol
Density: 3.28 g/cm³ (20 °C)
Melting Pt: 687 °C
Storage Temperature: Ambient temperature

Sodium molybdate(VI) dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	pH (20°C; 5 %)	7 to 10
Cl (Chloride)	Max. 50 ppm	NH_4 (Ammonium)	Max. 10 ppm
NO_3 (Nitrate)	Max. 50 ppm	$PO_4 + ASO_4 + SiO_4$ (as PO_4)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 10 ppm		

Cat. No.	Pk	Pack type
27937.236	250 g	Plastic bottle for solids

Sodium molybdate(VI) dihydrate GPR RECTAPUR®

Assay	Min. 99.0 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
NH_4 (Ammonium)	Max. 20 ppm
SO_4 (Sulphate)	Max. 0.05 %
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
27936.233	250 g	Plastic bottle for solids
27936.290	1 kg	Plastic bottle for solids

Sodium molybdenum oxide dihydrate

See Sodium molybdate(VI) dihydrate p.451

Sodium monohydrogen phosphate dihydrate

See di-Sodium hydrogen phosphate dihydrate p.443

Sodium monohydrogen phosphate dodecahydrate

See di-Sodium hydrogen phosphate dodecahydrate p.443

Sodium monohydrogen phosphate

See di-Sodium hydrogen phosphate p.442

Sodium nitrate

Warning
H272 H302
P210 P280 P301+P312

CAS 7631-99-4

EINECS: 231-554-3
UN: 1498
ADR 5.1,III

$NaNO_3$

M.W. 85 g/mol
Density: 2.26 g/cm³ (20 °C)
Boiling Pt: 380 °C (1013 hPa)
Melting Pt: 308 °C
Storage Temperature: Ambient temperature

Sodium nitrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	pH (25°C; 5 %)	5.5 to 8.3
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	IO_3 (Iodate)	Max. 5 ppm
NH_4 (Ammonium)	Max. 20 ppm	NO_2 (Nitrite)	Max. 10 ppm
PO_4 (Phosphate)	Max. 5 ppm	SO_4 (Sulphate)	Max. 30 ppm
Ca (Calcium)	Max. 20 ppm	Fe (Iron)	Max. 3 ppm
Mg (Magnesium)	Max. 20 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
27955.238	250 g	Plastic bottle for solids
27955.295	1 kg	Plastic bottle for solids

Sodium nitrate GPR RECTAPUR®

Assay (calculated on dried substance)..... Min. 99.0 %
Heavy metals (as Pb)..... Max. 10 ppm
Cl (Chloride)..... Max. 0.1 %
SO_4 (Sulphate)..... Max. 0.02 %
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
27950.298	1 kg	Plastic bottle for solids
27950.367	5 kg	Plastic bottle for solids

Sodium nitrite

Danger
H272 H301 H400
P210 P280 P273 P301+P310

CAS 7632-00-0
Index 007-010-00-4
EINECS: 231-555-9
UN: 1500
ADR 5.1,III

$NaNO_2$
M.W. 69 g/mol
Density: 2.168 g/cm³ (20 °C)
Boiling Pt: 320 °C (1013 hPa)
Melting Pt: 284 °C
Storage Temperature: Ambient temperature

Sodium nitrite AnalaR NORMAPUR® analytical reagent

Assay..... Min. 99.0 %
Insolubility in water..... Max. 100 ppm
SO_4 (Sulphate)..... Max. 50 ppm
Fe (Iron)..... Max. 10 ppm
Heavy metals (as Pb)..... Max. 10 ppm
Cl (Chloride)..... Max. 50 ppm
Ca (Calcium)..... Max. 20 ppm
K (Potassium)..... Max. 20 ppm

Cat. No.	Pk	Pack type
27960.236	250 g	Plastic bottle for solids
27960.293	1 kg	Plastic bottle for solids
27960.360	5 kg	Plastic bottle for solids

Sodium nitrite GPR RECTAPUR®

Assay..... Min. 98 %
Heavy metals (as Pb)..... Max. 20 ppm
Cl (Chloride)..... Max. 100 ppm
Fe (Iron)..... Max. 20 ppm

Cat. No.	Pk	Pack type
27959.298	1 kg	Plastic bottle for solids
27959.367	5 kg	Plastic bottle for solids
27959.460	25 kg	Bucket (Plastic)

Sodium nitroferricyanide dihydrate

See Sodium nitroprusside dihydrate..... p.452

di-Sodium 4-nitrophenyl phosphate hexahydrate

4-Nitrophenyl dihydrogen phosphate disodium salt hexahydrate , 4-Nitrophenyl phosphate disodium salt hexahydrate , p-Nitrophenyl phosphate disodium salt hexahydrate , pNPP , Phosphatase substrate

CAS 4264-83-9
EINECS: 224-246-5

$O_2NC_6H_4OP(O)(ONa)_2 \cdot 6H_2O$
M.W. 371.15 g/mol
Melting Pt: 300 °C
Storage Temperature: -20°C

di-Sodium 4-nitrophenyl phosphate hexahydrate analytical reagent

Assay..... Min. 98 %
4-Nitrophenol..... Max. 0.2 %
Water..... Max. 30 %
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
27963.101	5 g	Plastic bottle for solids
27963.134	25 g	Plastic bottle for solids

Sodium nitroprusside dihydrate

Sodium nitrosopentacyanoferrate (III) dihydrate , Sodium nitroferricyanide dihydrate , Disodium pentacyanonitrosylferrate (III) dihydrate

Danger
H301
P301+P310

CAS 13755-38-9
EINECS: 238-373-9
UN: 1588
ADR 6.1,III

$Na_2[Fe(CN)_5NO] \cdot 2H_2O$
M.W. 297.95 g/mol
Density: 1.72 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sodium nitroprusside dihydrate AnalaR NORMAPUR® analytical reagent

Assay..... Min. 98.0 %
Hexacyanoferrate (III) (as $Fe(CN)_6$)..... Max. 0.02 %
Insolubility in water..... Max. 100 ppm
SO_4 (Sulphate)..... Max. 100 ppm
Hexacyanoferrate (II) (as $Fe(CN)_6$)..... Max. 0.02 %
Insolubility in methanol..... Max. 0.5 %
Cl (Chloride)..... Max. 50 ppm

Cat. No.	Pk	Pack type
27966.180	100 g	Plastic bottle for solids

Sodium nitrosopentacyanoferrate (III) dihydrate

See Sodium nitroprusside dihydrate..... p.452

Sodium 1-octansulphonate

See 1-Octanesulphonic acid sodium salt..... p.330

Sodium orthophosphate dodecahydrate

See tri-Sodium phosphate dodecahydrate..... p.454

di-Sodium oxalate

Sodium ethanedioate , Soerensen's buffer substances

Warning
H302+H312
P261 P302+P352 P304+P340 P312

CAS 62-76-0
Index 607-007-00-3
EINECS: 200-550-3

$Na_2C_2O_4$
M.W. 134 g/mol
Density: 2.27 g/cm³ (20 °C)
Melting Pt: 250 to 270 °C
Storage Temperature: Ambient temperature

di-Sodium oxalate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.8 %	pH (20°C; 3 %)	7.5 to 8.5
Heavy metals (as Pb)	Max. 10 ppm	Loss on drying (105°C)	Max. 0.05 %
Total N (Nitrogen)	Max. 10 ppm	Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 20 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm		

Cat. No.	Pk	Pack type
27978.237	250 g	Plastic bottle for solids
27978.294	1 kg	Plastic bottle for solids

di-Sodium oxalate GPR RECTAPUR®

Assay	Min. 99.0 %
Heavy metals (as Pb)	Max. 20 ppm
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
27977.267	500 g	Plastic bottle for solids

Sodium 1-pentanesulphonate

See 1-Pentanesulphonic acid sodium salt p.346

Sodium perborate tetrahydrate

Sodium peroxometaborate tetrahydrate

Danger
H360Df H335 H318
P201 P281 P304+P340 P305+P351+P338 P309+P310

CAS 13517-20-9
Index 005-018-00-2
EINECS: 239-172-9

Restricted to professional users.

$NaH_2BO_4 \cdot 4H_2O$
M.W. 171.87 g/mol
Density: 1.73 g/cm³ (25 °C)
Melting Pt: 60 °C
Storage Temperature: Ambient temperature

Sodium perborate tetrahydrate GPR RECTAPUR®

Assay	Min. 98 %
SO_4 (Sulphate)	Max. 0.1 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27987.295	1 kg	Plastic bottle for solids

Sodium perchlorate monohydrate

Danger
H271 H302
P210 P280 P301+P312

CAS 7791-07-3
Index 017-010-00-6
EINECS: 231-511-9
UN: 1502
ADR 5.1,II

$NaClO_4 \cdot H_2O$
M.W. 140.46 g/mol
Density: 2.02 g/cm³ (25 °C)
Melting Pt: 130 °C
Storage Temperature: Ambient temperature

Sodium perchlorate monohydrate HiPerSolv CHROMANORM® for HPLC

Assay	Min 99.0 %
Transmission (254 nm)	Min 96 %
Chloride + chlorate (as Cl)	Max 0.002 %
Sulphates (SO_4)	Max 0.002 %
Ca (Calcium)	Max 0.002 %
Fe (Iron)	Max 0.0003 %
K (Potassium)	Max 0.005 %
Pb (Lead)	Max 0.0005 %

Cat. No.	Pk	Pack type
153233M	250 g	Plastic bottle for solids

Sodium perchlorate monohydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	pH (20°C; 5 %)	4.5 to 7.0
Heavy metals (as Pb)	Max. 5 ppm	Total N (Nitrogen)	Max. 5 ppm
Cl + ClO_3 (as Cl)	Max. 20 ppm	SO_4 (Sulphate)	Max. 20 ppm
Ca (Calcium)	Max. 20 ppm	Fe (Iron)	Max. 3 ppm
K (Potassium)	Max. 50 ppm		

Cat. No.	Pk	Pack type
27988.232	250 g	Plastic bottle for solids

Sodium periodate

Sodium metaperiodate

Danger
H271
P210 P280

CAS 7790-28-5
EINECS: 232-197-6
UN: 1479
ADR 5.1,II

$NaIO_4$
M.W. 213.89 g/mol
Density: 3.87 g/cm³ (20 °C)
Boiling Pt: 300 °C (1013 hPa)
Melting Pt: 175 °C
Storage Temperature: Ambient temperature

Sodium periodate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Cl + ClO_3 + Br + BrO_3 (as Cl)	Max. 100 ppm
SO_4 (Sulphate)	Max. 50 ppm	Mn (Manganese)	Max. 1 ppm

Cat. No.	Pk	Pack type
27985.185	100 g	Plastic bottle for solids

Sodium periodate TECHNICAL

Assay (on anhydrous substance)	Min. 99 %

Cat. No.	Pk	Pack type
27986.235	250 g	Plastic bottle for solids

Sodium peroxide

di-Sodium peroxide

Danger
H271 H314
P210 P280 P301+P330+P331 P304+P340 P309+P310

CAS 1313-60-6
Index 011-003-00-1
EINECS: 215-209-4
UN: 1504
ADR 5.1,I

Na_2O_2
M.W. 77.98 g/mol
Density: 2.805 g/cm³ (20 °C)
Melting Pt: 660 °C
Storage Temperature: Ambient temperature

Sodium peroxide, granules AnalaR NORMAPUR® analytical reagent

Assay	Min. 95.0 %	Heavy metals (as Pb)	Max. 20 ppm
Total N (Nitrogen)	Max. 20 ppm	Cl (Chloride)	Max. 40 ppm
PO_4 (Phosphate)	Max. 10 ppm	$SiO_2 + Al_2O_3 + Fe_2O_3$	Max. 100 ppm
SO_4 (Sulphate)	Max. 50 ppm	Ca (Calcium)	Max. 0.05 %
Fe (Iron)	Max. 20 ppm		

Cat. No.	Pk	Pack type
27996.230	250 g	Plastic bottle for solids
27996.296	1 kg	Plastic bottle for solids

Sodium peroxide, granules AnalaR NORMAPUR® analytical reagent

Assay	Min. 95.0 %	Identification	Passes test
Mean diameter	0,3 to 2 mm	Heavy metals (as Pb)	Max. 20 ppm
Total N (Nitrogen)	Max. 20 ppm	Cl (Chloride)	Max. 20 ppm
PO_4 (Phosphate)	Max. 5 ppm	$SiO_2 + Al_2O_3 + Fe_2O_3$	Max. 0.025 %
SO_4 (Sulphate)	Max. 10 ppm	Al (Aluminium)	Max. 10 ppm
Ca (Calcium)	Max. 0.05 %	Fe (Iron)	Max. 20 ppm
Conforms to BDH 10260	Passes test		

Cat. No.	Pk	Pack type
27995.260	500 g	Plastic bottle for solids
27995.293	1 kg	Plastic bottle for solids

di-Sodium peroxide

See Sodium peroxide p.454

Sodium peroxodisulphate

Disodium peroxodisulphate , Peroxydisulphuric acid disodium salt , Sodium persulphate

Danger
H272 H302 H319 H335 H315 H334 H317
P210 P280 P285 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 7775-27-1
EINECS: 231-892-1
UN: 1505
ADR 5.1,III

$Na_2S_2O_8$
M.W. 238.11 g/mol
Density: 2.4 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Sodium peroxodisulphate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Acidity or alkalinity	Max. 0.01 meq/g
Heavy metals (as Pb)	Max. 10 ppm	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm	NH_4 (Ammonium)	Max. 100 ppm
Fe (Iron)	Max. 10 ppm	Mn (Manganese)	Max. 2 ppm

Cat. No.	Pk	Pack type
28000.236	250 g	Plastic bottle for solids
28000.293	1 kg	Plastic bottle for solids

Sodium peroxodisulphate, purified

Assay	Min. 97 %
Heavy metals (as Pb)	Max. 20 ppm
Fe (Iron)	Max. 50 ppm

Cat. No.	Pk	Pack type
27997.368	5 kg	Bucket (Plastic)

Sodium peroxodisulphate in aqueous solution

CAS 7775-27-1
EINECS: 231-892-1

$Na_2S_2O_8$

Sodium peroxodisulphate 1 mol/l in aqueous solution AVS TITRINORM® volumetric solution, for TOC

Assay (at preparation)	230 to 245 g/l

Cat. No.	Pk	Pack type
306448.2500	2,5 l	Plastic bottle

This product is not available in all countries. Please check with your local VWR I office or supplier.

Sodium peroxometaborate tetrahydrate

See Sodium perborate tetrahydrate p.453

Sodium persulphate

See Sodium peroxodisulphate p.454

Sodium phosphate dibasic dihydrate

See di-Sodium hydrogen phosphate dihydrate p.443

Sodium phosphate dibasic dodecahydrate

See di-Sodium hydrogen phosphate dodecahydrate p.443

Sodium phosphate dibasic

See di-Sodium hydrogen phosphate p.442

tri-Sodium phosphate dodecahydrate

Sodium phosphate tribasic dodecahydrate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 10101-89-0
EINECS: 231-509-8
UN: 3262
ADR 8,III

$Na_3PO_4 \cdot 12H_2O$
M.W. 380.12 g/mol
Density: 1.62 g/cm³ (20 °C)
Melting Pt: ~ 75 °C
Storage Temperature: Ambient temperature

tri-Sodium phosphate dodecahydrate GPR RECTAPUR® ACS, ISO, Reag. Ph. Eur.

Assay	Min. 99 %
Identification	Passes test
Free alkali	Max. 0.70 meq/g
Total N (Nitrogen)	Max. 100 ppm
Cl (Chloride)	Max. 25 ppm
SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 1 ppm
Cu (Copper)	Max. 25 ppm
Fe (Iron)	Max. 10 ppm
Pb (Lead)	Max. 10 ppm
Conforms to BDH 30193	Passes test

Cat. No.	Pk	Pack type
28033.296	1 kg	Plastic bottle for solids
28033.365	5 kg	Plastic bottle for solids

tri-Sodium phosphate dodecahydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
28032.293	1 kg	Plastic bottle for solids
28032.362	5 kg	Bucket (Plastic)
28032.460	25 kg	Bucket (Plastic)

Sodium phosphate dodecahydrate

See tri-Sodium phosphate dodecahydrate p.454

Sodium phosphate monobasic dihydrate

See Sodium dihydrogen phosphate dihydrate p.438

Sodium phosphate monobasic monohydrate

See Sodium dihydrogen phosphate monohydrate p.437

Sodium phosphate monobasic

See Sodium dihydrogen phosphate p.437

Sodium phosphate tribasic dodecahydrate

See tri-Sodium phosphate dodecahydrate p.454

Sodium phosphinate monohydrate

Sodium hypophosphite monohydrate

CAS 10039-56-2
EINECS: 231-669-9

$NaH_2PO_2 \cdot H_2O$
M.W. 105.99 g/mol
Density: 0.8 g/cm³ (20 °C)
Melting Pt: 90 °C

Sodium phosphinate monohydrate GPR RECTAPUR®

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 10 ppm
Cl (Chloride)	Max. 0.02 %
SO_4 (Sulphate)	Max. 0.1 %
Ca (Calcium)	Max. 0.05 %
Fe (Iron)	Max. 10 ppm

Cat. No.	Pk	Pack type
27898.297	1 kg	Plastic bottle for solids

Sodium picrate in aqueous solution

CAS 3324-58-1
EINECS: 222-038-9

$C_6H_2(NO_2)_3ONa$

Sodium picrate 13 g/l in aqueous solution Reag. Ph. Eur. 1065802

Cat. No.	Pk	Pack type
87715.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

tetra-Sodium pyrophosphate decahydrate

See tetra-Sodium diphosphate decahydrate p.438

Sodium pyrophosphate decahydrate

See tetra-Sodium diphosphate decahydrate p.438

Sodium pyrosulphite

See Sodium metabisulphite p.450

Sodium pyruvate

Pyruvic acid sodium salt , 2-Ketopropionic acid sodium salt , 2-Oxopropionic acid sodium salt , α-Ketopropionic acid sodium salt

CAS 113-24-6
EINECS: 204-024-4

$CH_3COCOONa$
M.W. 110.05 g/mol
Density: 1.718 g/cm³ (20 °C)
Melting Pt: 220 to 230 °C
Storage Temperature: Ambient temperature

Sodium pyruvate Electran® Molecular biology grade

Assay	Min. 99 %
Identity (IR)	Passes test
Insoluble substances	Passes test
Loss on drying	Max. 0.5 %
pH (10 %)	5.5 to 6.5
Suited for enzyme substrate	Tested with LDH
Heavy metals (as Pb)	Max. 0.001 %
Cl (Chloride)	Max. 0.002 %
SO_4 (Sulphate)	Max. 0.002 %

Cat. No.	Pk	Pack type
440943N	100 g	Plastic bottle

VWR CHEMICALS Sodium pyruvate, reagent grade

Free Acid	1.0
Heavy Metals (as Pb)	0.01 %
Identification (IR)	PASS
Purity	99.0 %
Solubility (6 %, Water)	PASS
Water Content	1.0 %

Cat. No.	Pk	Pack type
0342-100G	100 g	Plastic bottle for solids
0342-250G	250 g	Plastic bottle for solids
0342-1KG	1 kg	Plastic bottle for solids

Sodium salicylate

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 54-21-7
EINECS: 200-198-0

HOC_6H_4COONa
M.W. 160.11 g/mol
Density: 0.32 g/cm³ (20 °C)
Melting Pt: 200 °C
Storage Temperature: Ambient temperature

Sodium salicylate AnalaR NORMAPUR® analytical reagent

Assay (calculated on dried substance)..... Min. 99.5
Water ..... Max. 0.2 %
SO_4 (Sulphate)..... Max. 100 ppm
Heavy metals (as Pb) ..... Max. 10 ppm
Cl (Chloride) ..... Max. 20 ppm
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
28065.230	250 g	Plastic bottle for solids

Sodium salicylate, crystallized GPR RECTAPUR®

Assay (calculated on dried substance)..... Min. 99.5 %
Heavy metals (as Pb) ..... Max. 10 ppm
Loss on drying (110°C) ..... Max. 0.5 %
Cl (Chloride) ..... Max. 100 ppm
SO_4 (Sulphate)..... Max. 0.06 %

Cat. No.	Pk	Pack type
28068.296	1 kg	Plastic bottle for solids
28068.460	25 kg	Bucket (Plastic)

Sodium selenate decahydrate

Danger
H301+H331 H373 H410
P260 P273 P304+P340 P309+P310

CAS 10102-23-5
Index 034-002-00-8
EINECS: 236-501-8
UN: 2630
ADR 6.1,I

Restricted to professional users.

$Na_2SeO_4 \cdot 10H_2O$
M.W. 369.09 g/mol
Density: 1.584 g/cm³ (20 °C)
Melting Pt: 35 °C
Storage Temperature: Ambient temperature

Sodium selenate decahydrate GPR RECTAPUR®

Assay..... Min. 97.0 %
Metal impurities ..... Max. 0.02 %
Insolubility in water ..... Max. 0.03 %

Cat. No.	Pk	Pack type
302113L	100 g	Plastic bottle

Sodium selenite

Danger
H300 H331 H317 H411
EUH031
P280 P273 P302+P352 P304+P340 P309+P310

CAS 10102-18-8
Index 034-003-00-3
EINECS: 233-267-9
UN: 2630
ADR 6.1,I

Restricted to professional users.

Na_2SeO_3
M.W. 172.94 g/mol
Density: 3.1 g/cm³ (20 °C)
Melting Pt: 710 °C
Storage Temperature: Ambient temperature

Sodium selenite TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
28074.231	250 g	Plastic bottle for solids

Sodium silicate

Silicic acid sodium salt , Sodium silicate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 1344-09-8
EINECS: 215-687-4
Density: 1.39 g/cm³ (25 °C)

Sodium silicate TECHNICAL

Silica..... 60 to 64 %
Sodium oxide..... 17 to 20 %

Cat. No.	Pk	Pack type
28087.361	5 kg	Bucket (Plastic)

Sodium silicate in aqueous solution TECHNICAL

Silica..... 25.6 to 27.6 %
Sodium oxide..... 7.5 to 8.5 %

Cat. No.	Pk	Pack type
28079.320	2,5 l	Plastic bottle
28079.363	5 l	Plastic bottle
28079.460	25 l	Plastic drum

di-Sodium succinate hexahydrate

1,4-Butanedioic acid disodium salt hexahydrate , Succinic acid disodium salt hexahydrate , Sodium succinate dibasic hexahydrate

CAS 6106-21-4
EINECS: 205-778-7

$NaOOCCH_2CH_2COONa \cdot 6H_2O$
M.W. 270.15 g/mol
Density: 1.529 g/cm³ (20 °C)
Melting Pt: 300 °C
Storage Temperature: Ambient temperature

di-Sodium succinate hexahydrate, reagent grade

Purity..... 99.0 %
Sulfate ..... 0.02 %

Cat. No.	Pk	Pack type
0477-100G	100 g	Plastic bottle for solids
0477-500G	500 g	Plastic bottle for solids

Sodium sulphate

CAS 7757-82-6
EINECS: 231-820-9

Na_2SO_4
M.W. 142.04 g/mol
Density: 2.7 g/cm³ (20 °C)
Boiling Pt: 1429 °C (1013 hPa)
Melting Pt: 888 °C
Storage Temperature: Ambient temperature

Sodium sulphate PESTINORM® for pesticide residue analysis

Assay	Min. 99.5 %
Absence for pesticide residues	Passes test
pH (20°C; 5 %)	5.0 to 8.0
Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm
Loss on ignition (600°C)	Max. 0.5 %
Cl (Chloride)	Max. 10 ppm
PO_4 (Phosphate)	Max. 20 ppm
Total N (Nitrogen)	Max. 10 ppm
As (Arsenic)	Max. 1 ppm
Ca + Mg (as Ca)	Max. 100 ppm
Loss on drying (130°C)	Max. 0.5 %
Fe (Iron)	Max. 2 ppm
K (Potassium)	Max. 100 ppm

Cat. No.	Pk	Pack type
28116.293	1 kg	Glass bottle for solids

Sodium sulphate, anhydrous AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	pH (25°C; 5 %)	5.2 to 8.0
Heavy metals (as Pb)	Max. 5 ppm	Insolubility in water	Max. 100 ppm
Loss on drying (130°C)	Max. 0.5 %	Loss on ignition (800°C)	Max. 0.5 %
Cl (Chloride)	Max. 100 ppm	PO_4 (Phosphate)	Max. 10 ppm
Total N (Nitrogen)	Max. 5 ppm	As (Arsenic)	Max. 1 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 25 ppm
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
28114.230	250 g	Plastic bottle for solids
28114.260	500 g	Plastic bottle for solids
28114.296	1 kg	Plastic bottle for solids
28114.365	5 kg	Plastic bottle for solids
28114.460	25 kg	Bucket (Plastic)

Sodium sulphate, anhydrous, fine powder Ph. Eur.

Assay (dried substance)	98.5 to 101.0 %
Appearance	White powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Cl (Chloride)	Max. 450 ppm
Heavy metals (as Pb)	Max. 45 ppm
Loss on drying (130°C)	Max. 0.5 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
28105.295	1 kg	Plastic bottle for solids
28105.364	5 kg	Plastic bottle for solids
28105.466	25 kg	Bucket (Plastic)

Sodium sulphate GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Fe (Iron)	Max. 20 ppm
Sodium chloride	Max. 0.25 %

Cat. No.	Pk	Pack type
28111.260	500 g	Plastic bottle for solids
28111.296	1 kg	Plastic bottle for solids
28111.365	5 kg	Plastic bottle for solids

Sodium sulphate TECHNICAL

Assay	Min. 98 %

Cat. No.	Pk	Pack type
28104.292	1 kg	Plastic bottle for solids
28104.361	5 kg	Bucket (Plastic)
28104.460	25 kg	Bucket (Plastic)

Sodium sulphate decahydrate

CAS 7727-73-3

EINECS: 231-820-9

$Na_2SO_4 \cdot 10H_2O$

M.W. 322.2 g/mol
Density: 1.464 g/cm³ (20 °C)
Boiling Pt: 1429 °C (1013 hPa)
Melting Pt: 32.4 °C
Storage Temperature: Ambient temperature

NEW Sodium sulphate decahydrate AnalaR NORMAPUR®

Assay	Min. 99.0 %	pH (5 %)	5.2 to 9.2
Heavy metals (as Pb)	Max. 3 ppm	Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 5 ppm	PO_4 (Phosphate)	Max. 5 ppm
Ca (Calcium)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm	Mg (Magnesium)	Max. 30 ppm

Cat. No.	Pk	Pack type
84851.290	1 kg	Plastic bottle for solids

di-Sodium sulphide hydrate

Sodium sulphide hydrate

Danger
H311 H302 H314 H400
EUH031
P280 P273 P301+P330+P331 P302+P352 P304+P340
P309+P310

CAS 27610-45-3
Index 016-009-00-8
EINECS: 215-211-5
UN: 1849
ADR 8,II

$Na_2S \cdot 1H_2O$

M.W. 96.06 g/mol
Density: ~ 1.43 g/cm³ (20 °C)
Boiling Pt: ~ 920 °C (1013 hPa)
Melting Pt: 50 °C
Storage Temperature: 2 - 8°C

di-Sodium sulphide hydrate AnalaR NORMAPUR® analytical reagent

Assay	58 to 64 %	Total N (Nitrogen)	Max. 50 ppm
SO_3 (Sulphite)	Max. 0.6 %	S_2O_3 (Thiosulphate)	Max. 0.5 %

Cat. No.	Pk	Pack type
83756.230	250 g	Plastic bottle for solids
83756.290	1 kg	Plastic bottle for solids

di-Sodium sulphide hydrate GPR RECTAPUR®

Assay	58 to 64 %
SO_3 (Sulphite)	Max. 0.6 %
S_2O_3 (Thiosulphate)	Max. 0.5 %

Cat. No.	Pk	Pack type
83757.290	1 kg	Plastic bottle for solids

di-Sodium sulphide in glycerine (25-50%)

Warning
H319 H315 H410
P280 P273 P302+P352 P305+P351+P338

CAS 1313-82-2
EINECS: 215-211-5
UN: 3266
ADR 8,III

Na_2S
M.W. 78.05 g/mol
Storage Temperature: Ambient temperature

di-Sodium sulphide 0.5 mol/l in glycerine 35% Reag. Ph. Eur. 1083901

Cat. No.	Pk	Pack type
87940.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sodium sulphite

EUH031

CAS 7757-83-7
EINECS: 231-821-4

Na_2SO_3
M.W. 126.04 g/mol
Density: 2.63 g/cm³ (20 °C)
Melting Pt: Min. 500 °C
Storage Temperature: Ambient temperature

Sodium sulphite AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay (at filling)..... Min. 98.0 %
Heavy metals (as Pb)..... Max. 20 ppm
Colouration (10 %; water)..... Max. 10 APHA
Fe (Iron)..... Max. 10 ppm

Cat. No.	Pk	Pack type
28130.260	500 g	Plastic bottle for solids
28130.292	1 kg	Plastic bottle for solids

Sodium sulphite, anhydrous Ph. Eur.

Assay..... 95.0 to 100.5 %
Appearance..... White powder
Identification A..... Passes test
Identification B..... Passes test
Identification C..... Passes test
Identification D..... Passes test
Solution S..... Passes test
Solution S1..... Passes test
Appearance of solution..... Passes test
S_2O_3 (Thiosulphate)..... Max. 0.1 %
Fe (Iron)..... Max. 10 ppm
Se (Selenium)..... Max. 10 ppm
Zn (Zinc)..... Max. 25.0 ppm
Heavy metals (as Pb)..... Max. 10 ppm
Residual solvents..... Passes test

Cat. No.	Pk	Pack type
28125.294	1 kg	Plastic bottle for solids
28125.363	5 kg	Plastic bottle for solids
28125.465	25 kg	Bucket (Plastic)

Sodium sulphite, purified

Assay..... 95.0 to 100.5 %
Heavy metals (as Pb)..... Max. 50 ppm
Fe (Iron)..... Max. 20 ppm

Cat. No.	Pk	Pack type
28126.297	1 kg	Plastic bottle for solids
28126.366	5 kg	Bucket (Plastic)
28126.460	25 kg	Bucket (Plastic)

L(+)-Sodium tartrate dibasic dihydrate

See di-Sodium L(+)-tartrate dihydrate..... p.458

di-Sodium L(+)-tartrate dihydrate

(R,R)-(+)-Disodium tartrate dihydrate , (R,R)-(+)-Tartaric acid disodium salt dihydrate , L(+)-Tartaric acid disodium salt dihydrate , (R,R)-(+)-Sodium tartrate dibasic dihydrate , L(+)-Sodium tartrate dibasic dihydrate , (+)-Disodium-L-tartrat dihydrate , (+)-Disodium L-tartrate dihydrate

CAS 6106-24-7
EINECS: 212-773-3

$NaOOC(CHOH)_2COONa·2H_2O$
M.W. 230.08 g/mol
Density: 1.818 g/cm³ (20 °C)
Melting Pt: 57 °C

di-Sodium L(+)-tartrate dihydrate GPR RECTAPUR®

Assay (calculated on anhydrous)..... Min. 99.0 %
Loss on drying (150°C)..... Max. 17.0 %
C_2O_4 (Oxalate)..... Max. 0.05 %
Cl (Chloride)..... Max. 50 ppm
As (Arsenic)..... Max. 2 ppm
Cu (Copper)..... Max. 10 ppm
Fe (Iron)..... Max. 10 ppm
Pb (Lead)..... Max. 10 ppm
Zn (Zinc)..... Max. 10 ppm

Cat. No.	Pk	Pack type
28174.260	500 g	Plastic bottle for solids

di-Sodium tetraborate

Danger
H360FD
P201 P281 P308+P313

CAS 1330-43-4
Index 005-011-00-4
EINECS: 215-540-4

$Na_2B_4O_7$
M.W. 201.22 g/mol
Density: 2.38 g/cm³ (20 °C)
Boiling Pt: 1575 °C (1013 hPa)
Melting Pt: 742 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS di-Sodium tetraborate, ultrapure buffer substance

Appearance..... PASS
Conductivity (0.5%, Water)..... REPORT
DNase..... NONE
pH (0.5%, Water)..... 8.30 - 8.70
RNase..... NONE
Solubility..... PASS

Cat. No.	Pk	Pack type
1B1117-100G	100 g	Plastic bottle for solids
1B1117-500G	500 g	Plastic bottle for solids
1B1117-1KG	1 kg	Plastic bottle for solids

di-Sodium tetraborate, anhydrous TECHNICAL

Assay..... Min. 98 %

Cat. No.	Pk	Pack type
27716.290	1 kg	Plastic bottle for solids
27716.368	5 kg	Bucket (Plastic)

di-Sodium tetraborate decahydrate

Danger
H360FD
P201 P281 P308+P313

CAS 1303-96-4
Index 005-011-01-1
EINECS: 215-540-4

$Na_2B_4O_7 \cdot 10H_2O$
M.W. 381.37 g/mol
Density: 1.73 g/cm³ (20 °C)
Boiling Pt: 320 °C (1013 hPa)
Melting Pt: 75 °C
Storage Temperature: Ambient temperature

di-Sodium tetraborate decahydrate AnalaR NORMAPUR® Reag. Ph. Eur. analytical reagent

Assay	Min. 99.0 %	Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 50 ppm	CO_3 (Carbonate)	Passes test
Cl (Chloride)	Max. 5 ppm	NH_4 (Ammonium)	Max. 10 ppm
PO_4 (Phosphate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm	Ca + Mg (as Ca)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm		

Cat. No.	Pk	Pack type
27727.231	250 g	Plastic bottle for solids
27727.297	1 kg	Plastic bottle for solids
27727.460	25 kg	Bucket (Plastic)

di-Sodium tetraborate decahydrate Ph. Eur.

Assay	99.0 to 103.0 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (4 %)	9.0 to 9.6
SO_4 (Sulphate)	Max. 50 ppm
NH_4 (Ammonium)	Max. 10 ppm
As (Arsenic)	Max. 5 ppm
Ca (Calcium)	Max. 100 ppm
Heavy metals (as Pb)	Max. 25 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83555.290	1 kg	Plastic bottle for solids
83555.460	25 kg	Bucket (Plastic)

di-Sodium tetraborate decahydrate, purified

Assay	Min. 98 %
Heavy metals (as Pb)	Max. 20 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
27721.366	5 kg	Bucket (Plastic)

di-Sodium tetraborate decahydrate, powder TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
27705.361	5 kg	Bucket (Plastic)
27705.460	25 kg	Bucket (Plastic)

Sodium tetrachloroaurate dihydrate

Warning
H302 H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 13874-02-7
EINECS: 239-241-3
UN: 3260
ADR 8,III

$NaAuCl_4 \cdot 2H_2O$
M.W. 397.8 g/mol

Sodium tetrachloroaurate dihydrate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26069.081	1 g	Glass bottle
26069.126	10 g	Glass bottle

Sodium tetrahydridoborate

See Sodium tetrahydroborate p.459

Sodium tetrahydroborate

Sodium borohydride , Sodium tetrahydridoborate

Danger
H260 H301+H311 H314
P223 P231+P232 P280 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 16940-66-2
EINECS: 241-004-4
UN: 1426
ADR 4.3,I
Flash Pt: 69 °C

$NaBH_4$
M.W. 37.83 g/mol
Density: 1.07 g/cm³ (20 °C)
Melting Pt: 400 °C
Storage Temperature: Ambient temperature

Sodium tetrahydroborate TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27885.134	25 g	Plastic bottle for solids

Sodium tetraphenylborate

Danger
H301
P301+P310

CAS 143-66-8
EINECS: 205-605-5
UN: 2811
ADR 6.1,III

$(C_6H_5)_4BNa$
M.W. 342.22 g/mol
Density: 1.15 g/cm³ (20 °C)
Melting Pt: Min. 400 °C
Storage Temperature: Ambient temperature

Sodium tetraphenylborate analytical reagent

Assay ..... Min. 99.5 %
Loss on drying (100°C) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
28187.138	25 g	Plastic bottle for solids

Sodium thiosulphate

Sodium hyposulphite , di-Sodium thiosulphate

CAS 7772-98-7
EINECS: 231-867-5

$Na_2S_2O_3$
M.W. 158.11 g/mol
Density: 1.66 g/cm³ (20 °C)
Boiling Pt: 100 °C (1013 hPa)
Melting Pt: 48 °C
Storage Temperature: Ambient temperature

NEW Sodium thiosulphate, anhydrous GPR RECTAPUR®

Assay ..... Min. 98 %
pH (20°C; 5 %) ..... 6.0 to 8.5
S (Sulphide) ..... Max. 50 ppm
Ca (Calcium) ..... Max. 50 ppm
Cd (Cadmium) ..... Max. 50 ppm
Co (Cobalt) ..... Max. 50 ppm
Cu (Copper) ..... Max. 50 ppm
Fe (Iron) ..... Max. 50 ppm
K (Potassium) ..... Max. 100 ppm
Ni (Nickel) ..... Max. 50 ppm
Pb (Lead) ..... Max. 50 ppm
Zn (Zinc) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
84852.230	250 g	Plastic bottle for solids
84852.290	1 kg	Plastic bottle for solids

Sodium thiosulphate pentahydrate

CAS 10102-17-7
EINECS: 231-867-5

$Na_2S_2O_3$
M.W. 248.19 g/mol
Density: 1.67 g/cm³ (20 °C)
Melting Pt: 48 °C
Storage Temperature: Ambient temperature

Sodium thiosulphate pentahydrate AnalaR NORMAPUR® ACS analytical reagent

Assay ..... 99.5 to 100.5 %
Insolubility in water ..... Max. 50 ppm
Cl (Chloride) ..... Max. 80 ppm
SO_4 + SO_3 (as SO_4) ..... Max. 0.1 %
Cu (Copper) ..... Max. 5 ppm
K (Potassium) ..... Max. 50 ppm
Pb (Lead) ..... Max. 5 ppm
pH (20°C; 5 %) ..... 6.0 to 8.4
Total N (Nitrogen) ..... Max. 20 ppm
S (Sulphide) ..... Max. 1 ppm
Ca (Calcium) ..... Max. 20 ppm
Fe (Iron) ..... Max. 5 ppm
Mg (Magnesium) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27910.260	500 g	Plastic bottle for solids
27910.291	1 kg	Plastic bottle for solids

Sodium thiosulphate pentahydrate GPR RECTAPUR®

Assay ..... Min. 99 %
Heavy metals (as Pb) ..... Max. 20 ppm
Cl (Chloride) ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
27909.296	1 kg	Plastic bottle for solids
27909.365	5 kg	Plastic bottle for solids
27909.460	25 kg	Bucket (Plastic)

Sodium thiosulphate pentahydrate, purified

Assay ..... Min. 98 %
Heavy metals (as Pb) ..... Max. 20 ppm
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
27905.293	1 kg	Plastic bottle for solids
27905.362	5 kg	Bucket (Plastic)

VWR CHEMICALS Sodium thiosulphate pentahydrate, proteomics grade

Insolubles ..... 0.005 %
pH (5 %, Water) @25 °C ..... 6.0 - 8.4
Protease ..... NONE
Purity ..... 99 %
Sulphate & Sulphite ..... < 0.1 %
Sulphide ..... < 0.0001 %

Cat. No.	Pk	Pack type
M132-500G	500 g	Plastic bottle for solids

Sodium thiosulphate concentrated aqueous solution

CAS 7772-98-7
EINECS: 231-867-5

$Na_2S_2O_3$
Storage Temperature: Ambient temperature

Sodium thiosulphate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.0995 to 0.1005 mol/l

Cat. No.	Pk	Pack type
32065.603	60 ml	Plastic ampoule

NEW Sodium thiosulphate 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01020 mol/l

Cat. No.	Pk	Pack type
84598.600	60 ml	Plastic ampoule

Sodium thiosulphate (0.1 - < 1 mol/l; 0.1 - < 1 N) in aqueous solution

CAS 7772-98-7
EINECS: 231-867-5

$Na_2S_2O_3$
Storage Temperature: Ambient temperature

Sodium thiosulphate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
31547.293	1 l	Plastic bottle

Sodium thiosulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
31553.294	1 l	Plastic bottle
31553.363	5 l	Plastic bottle
31553.408	10 l	Bag-in-box (Cubitainer)

Sodium thiosulphate 0.01 mol/l (0.01 N) in aqueous solution VOLUSOL® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
309337.1000	1 l	Plastic bottle

Sodium triazide

See Sodium azide p.432

Sodium tungstate dihydrate

Sodium wolframate dihydrate

Warning
H302
P301+P312

CAS 10213-10-2
EINECS: 236-743-4

$Na_2WO_4 \cdot 2H_2O$
M.W. 329.85 g/mol
Density: 3.23 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Sodium tungstate dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99 %	Total N (Nitrogen)	Max. 10 ppm
Cl (Chloride)	Max. 30 ppm	SO_4 (Sulphate)	Max. 100 ppm
Fe (Iron)	Max. 5 ppm	Mo (Molybdenum)	Max. 50 ppm
Pb (Lead)	Max. 10 ppm		

Cat. No.	Pk	Pack type
28195.238	250 g	Plastic bottle for solids
28195.460	25 kg	Bucket (Plastic)

This product is not suitable for the Colin reaction.

Soerensen's buffer substances

See di-Sodium oxalate p.452

Solochrome Black T

See Eriochrome Black T p.171

Solution for anionic surfactant determination (formerly known as Dimidium bromide-disulphine blue indicator stock solution)

Solution for anionic surfactant determination (formerly known as Dimidium bromide-disulphine blue indicator stock solution)

For use in the two-phase method for anionic surfactants.

Suitability as indicator ..... passes test

Cat. No.	Pk	Pack type
191892H	100 ml	Glass bottle

Solvent ASTM D 664, Toluene/2-Propanol-mixture (50/50 v/v), TAN solvent

Danger
H225 H332 H319
P210 P243 P280 P304+P340 P305+P351+P338 P313
UN: 1993
ADR 3,II
Flash Pt: 10 °C
Storage Temperature: Ambient temperature

Solvent ASTM D 664, Toluene/2-Propanol-mixture (50/50 v/v), TAN solvent VOLUSOL®

Assay (Toluene) (V/V) ..... 47.5 to 52.5 %
Assay (Propan-2-ol) (V/V) ..... 47.0 to 52.0 %
Water (V/V) ..... 0.4 to 0.6 %

Cat. No.	Pk	Pack type
5138.2500	2,5 l	Glass bottle
5138.5000	5 l	Fluorinated plastic bottle
5138.9025	25 l	Metal drum

Solvent ASTM D2896, Chlorobenzene/Acetic acid-mixture (2/1 v/v), TBN solvent

Danger
H226 H332 H314 H411
P210 P243 P280 P273 P301+P330+P331 P304+P340
P309+P310
UN: 3265
ADR 8,II
Flash Pt: 32 °C
Density: ~ 1.08 g/cm³ (20 °C)
Boiling Pt: Min. 118 °C (1013 hPa)
Storage Temperature: Ambient temperature

NEW Solvent ASTM D2896, Chlorobenzene/Acetic acid-mixture (2/1 v/v), TBN solvent VOLUSOL®

Assay (Acetic acid) ..... 31.5 to 33.5 %
Density (20/4) ..... 1.070 to 1.090

Cat. No.	Pk	Pack type
5154.2500	2,5 l	Glass bottle
5154.5000	5 l	Aluminium bottle

Solvent ASTM D2896, Chlorobenzene/Acetic acid-mixture (2/1 v/v), TBN solvent VOLUSOL®

Assay (Acetic acid) (V/V) ..... 33.08 to 33.58 %
Assay (Chlorobenzene) (V/V) ..... 66.41 to 66.91 %(V)

Cat. No.	Pk	Pack type
799306A	2,5 l	Glass bottle

Solvent ASTM 4739

Danger
H225 H351 H361d H302 H304 H373 H319 H315 H336
P210 P281 P301+P331 P302+P352 P304+P340
P305+P351+P338 P309+P310
UN: 1993
ADR 3,II

Solvent ASTM 4739 VOLUSOL®

Toluene, Propan-2-ol, Dichloromethane, Chloroform, H2O

Identification ..... Passes test
Density (20/4) ..... 1.030 to 1.046

Cat. No.	Pk	Pack type
5740.2500	2,5 l	Glass bottle

Solvent mixture 15

Danger
H226 H315 H317 H410
P210 P243 P280 P273 P302+P352
UN: 1993
ADR 3,III
Flash Pt: 50 °C

Solvent mixture 15

Mixture 15 is a d-Limonene-based product intended to replace the 1,1,1-trichloroethane (T-111) or other toxical products, particularly for cold degreasing purposes.
- High solving power (KB>50), fast drying
- No chlorinated or aromatic solvent

Appearance ..... Clear colourless liquid
Solubility in water at 20°C ..... Neglectable
Density (25/4) ..... 0.770 to 0.790
Distillation range ..... 161 to 197 °C
Flash point ..... 46 to 52 °C
Viscosity (20°C) ..... Max. 1.4 cSt

Cat. No.	Pk	Pack type
25405.292	1 l	Glass bottle

Solvent PERTENE® D6 for degreasing

NEW Solvent PERTENE® D6 for degreasing

Cat. No.	Pk	Pack type
28228.290	1 l	Glass bottle

Solvent Red 43

See Eosin Y (yellowish) p.171

Solvent ASTM D235 Type 1

White spirit

Danger
H350 H340 H304
P201 P281 P301+P310 P331 P308+P313
UN: 1268
ADR 3,III
Flash Pt: 39 °C

Restricted to professional users.
Density: 0.79 g/cm³ (20 °C)
Boiling Pt: 156 to 202 °C (1013 hPa)
Melting Pt: -40 °C

Solvent ASTM D235 Type 1 suitable for use in the testing of petroleum products by ASTM methods

White spirit (BSS 245) Type A 1976

Density (15/4) ..... 0.770 to 0.790

Cat. No.	Pk	Pack type
306946X	2,5 l	Glass bottle
30694HC	25 l	Metal drum

Solvent acetic acid mixture suitable for ASTM method D2710 B / D1159

Danger
H226 H351 H302+H312+H332 H314 H370
P210 P243 P281 P301+P330+P331 P302+P352
P304+P340 P309+P310
UN: 2920
ADR 8,II
Storage Temperature: Ambient temperature

Solvent acetic acid mixture for ASTM method D2710 B / D1159 VOLUSOL®

Acetic acid, Methanol, Dichloromethane, Sulphuric acid, Water

Identification ..... Passes test
Density (20/4) ..... 1.050 to 1.070

Cat. No.	Pk	Pack type
5203.2500	2,5 l	Glass bottle

Sorbic acid potassium salt

See Potassium sorbate p.388

Sorbic acid

2,4-Hexadienoic acid , trans,trans-2,4-Hexadienoic acid , (2E,4E)-2,4-Hexadienoic acid , (E,E)-2,4-Hexadienoic acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 110-44-1
EINECS: 203-768-7
Flash Pt: 127 °C (closed cup)
$CH_3CH=CHCH=CHCOOH$
M.W. 112.13 g/mol
Density: 1.204 g/cm³ (20 °C)
Boiling Pt: 228 °C (1013 hPa)
Melting Pt: 132 to 135 °C
Storage Temperature: Ambient temperature

Sorbic acid TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20664.293	1 kg	Plastic bottle for solids

D(-)-Sorbitol

D(-)-Glucitol

CAS 50-70-4
EINECS: 200-061-5
Flash Pt: Min. 100 °C
$HOH_2C(CH(OH))_4CH_2OH$
M.W. 182.17 g/mol
Density: 1.524 g/cm³ (20 °C)
Boiling Pt: 295 °C (1013 hPa)
Melting Pt: 94 to 98 °C
Storage Temperature: Ambient temperature

D(-)-Sorbitol GPR RECTAPUR®

Assay (calculated on anhydrous)	97.0 to 100.5 %
Appearance of solution (10 %; water)	Passes test
Identification	Passes test
Spec. opt. rot.(10 %; borate; anhydrous)	4.0 to 7.0 °
Reducing sugars (calculated as $C_6H_{12}O_6$)	Max. 0.2 %
Ignition residue (SO_4)	Max. 0.1 %
Water	Max. 1.5 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 100 ppm
Ni (Nickel)	Max. 1 ppm
Pb (Lead)	Max. 0.5 ppm

Cat. No.	Pk	Pack type
302424A	500 g	Plastic bottle for solids
302425B	2,5 kg	Plastic bottle for solids

D(-)-Sorbitol TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
28210.298	1 kg	Plastic bottle for solids
28210.367	5 kg	Bucket (Plastic)

Sorensen's salt

See di-Sodium hydrogen phosphate dihydrate p.443

Solvents for spectroscopy, SPECTRONORM®

UV/VIS spectroscopy is a reliable and accurate method used extensively in modern analytical laboratories. In spectroscopy the identification of unknown substances and the determination of concentrations of known substances are very important. In both cases accurate analytical results depend on the use of very pure solvents for sample preparation.
SPECTRONORM® solvents are specially designed for spectroscopy applications that demand the highest spectral purity. To ensure consistent product quality, SPECTRONORM® solvents are made from premium grade raw materials and are subjected to stringent purification procedures. These processes ensure reproducible results and significantly reduce the risk of errors arising from the presence of UV or fluorescence contaminating material.

SPECTRONORM® solvents have extensive specifications to meet the highly demanding requirements of UV applications
- Guaranteed UV transmission specifications
- Evaporation residue less than 5 ppm for the majority of SPECTRONORM® solvents
- Batch to batch reproducibility

Purified from selected raw materials under ISO 9001 conditions, these solvents are also :
- Filtered at 0.2 µm and bottled under nitrogen
- Fitted with caps with PTFE liners to prevent comtamination
- Packed in 2.5 L and 1 L glass bottles with DIN 45 closures

Description	Page	Pk	Cat. No.
Acetone SPECTRONORM® for spectroscopy	6, 464	1 l	84700.290
Acetone SPECTRONORM® for spectroscopy	6, 464	2,5 l	84700.320
Acetonitrile SPECTRONORM® for spectroscopy	9, 464	1 l	84701.290
Acetonitrile SPECTRONORM® for spectroscopy	9, 464	2,5 l	84701.320
1-Butanol SPECTRONORM® for spectroscopy	86, 464	1 l	84709.290
tert-Butyl methyl ether SPECTRONORM® for spectroscopy	88, 464	1 l	84713.290
Chloroform SPECTRONORM® for spectroscopy	107, 464	1 l	22715.293
Cyclohexane SPECTRONORM® for spectroscopy	128, 464	1 l	23225.296
Dichloromethane SPECTRONORM® for spectroscopy	141, 464	1 l	84702.290
Dichloromethane SPECTRONORM® for spectroscopy	141, 464	2,5 l	84702.320
Diethyl ether SPECTRONORM® for spectroscopy	145, 464	1 l	84703.290
Diethyl ether SPECTRONORM® for spectroscopy	145, 464	2,5 l	84703.320
Dimethyl sulphoxide SPECTRONORM® for spectroscopy	150, 464	1 l	84711.290
Dimethyl sulphoxide SPECTRONORM® for spectroscopy	150, 464	2,5 l	84711.320
N,N-Dimethylformamide SPECTRONORM® for spectroscopy	149, 464	1 l	84710.290
N,N-Dimethylformamide SPECTRONORM® for spectroscopy	149, 464	2,5 l	84710.320
1,4-Dioxane SPECTRONORM® for spectroscopy	153, 464	1 l	84715.290
Ethanol 95-97% (v/v) SPECTRONORM® for spectroscopy	174, 464	1 l	20822.290
Ethyl acetate SPECTRONORM® for spectroscopy	179, 464	1 l	84704.290
Ethyl acetate SPECTRONORM® for spectroscopy	179, 464	2,5 l	84704.320
n-Heptane SPECTRONORM® for spectroscopy	212, 464	1 l	84712.290
n-Heptane SPECTRONORM® for spectroscopy	212, 464	2,5 l	84712.320
n-Hexane SPECTRONORM® for spectroscopy	215, 464	2,5 l	140096E
2,2,4-Trimethylpentane SPECTRONORM® for spectroscopy	464, 516	1 l	28776.293
2,2,4-Trimethylpentane SPECTRONORM® for spectroscopy	464, 516	2,5 l	28776.320
Methanol SPECTRONORM® for spectroscopy	286, 464	1 l	84705.290
Methanol SPECTRONORM® for spectroscopy	286, 464	2,5 l	84705.320
n-Pentane SPECTRONORM® for spectroscopy	345, 464	1 l	84714.290
n-Pentane SPECTRONORM® for spectroscopy	345, 464	2,5 l	84714.320
2-Propanol SPECTRONORM® for spectroscopy	392, 464	1 l	84706.290
2-Propanol SPECTRONORM® for spectroscopy	392, 464	2,5 l	84706.320
Tetrachloroethylene SPECTRONORM® for spectroscopy	464, 498	1 l	83950.290
Tetrahydrofuran SPECTRONORM® for spectroscopy	464, 500	1 l	84707.290
Tetrahydrofuran SPECTRONORM® for spectroscopy	464, 500	2,5 l	84707.320
Toluene SPECTRONORM® for spectroscopy	464, 510	1 l	84708.290
Toluene SPECTRONORM® for spectroscopy	464, 510	2,5 l	84708.320

Spillage absorption granules

The coarse granules are easy to use and when applied to liquid spillages will absorb up to 80% of their own weight. The granules are suitable for absorbing acids, alkalis, other aqueous solutions and organic liquids.

- Bulk density 50 g/100 ml
- Rapid absorption of low viscosity liquids
- Granular, size typically 1 to 3,15 mm (95% more than 1,0 mm), generates little dust

Safety note: Mercury is not absorbed.

Description	Pk	Cat. No.
Spillage absortion granules, typically 1 - 3,15 mm	2,5 kg	332377C

Spillage granules, Algosol

Algosol is a unique natural product made from seaweed and is suitable for the neutralisation of acids, such as hydrochloric, sulphuric, nitric and hydrofluoric. It absorbs spills immediately without breaking up and can be used to extinguish fires.

- Biodegradable, non toxic, non flammable and dust-free
- Can be swept up easily
- Stable, chemically inert and non polluting

1 kg of Algosol neutralises 180 ml 95% sulphuric acid or 530 ml of 36% hydrochloric acid or 400 ml of 70% nitric acid or 260 ml of 40% hydrofluoric acid.

Description	Pk	Cat. No.
Spillage granules, Algosol	10 kg	99910.414

Spill kits, mobile, SPILL-X®

Developed to economically treat small spills, such as those that can occur in a laboratory environment. Provides easy access to the appropriate control agent for a particular type of chemical spill.

PP containers allow for both types of agent application namely pouring or shaking. Each bottle can treat a spillage up to 1,9 litres (1,4 to 1,9 m^2). Convert caustics and acids into non hazardous compounds that meet EPA specifications for non hazardous waste. Can be used effectively to deal with accidental spills or release of acids (SPILL X A®, also suitable for hydrofluoric acid HF), caustics (SPILL X C®), solvents (SPILL X S®) and formaldehyde (SPILL X FP®) at the workplace.

- Treats hazardous spills rather than just repackaging them
- Safe, easy to use, with the highest per volume absorption capacity
- Neutralises and solidifies acids and caustics for easy waste disposal (SPILL-X-A®, SPILL-X-C®)
- Absorbs solvents and raises the flash point above 60 °C, without producing toxic by-products (SPILL-X-S®)
- SPILL-X® case comes with portable, semi-portable or permanent mounting options

SPILL-X® kit case W×D×H: 470×145×550 mm (closed)

Description	Pk	Cat. No.
Multipurpose SPILL-X®, 6 shakers	1	121-0006
Acid SPILL-X-A®, 6×1.13 kg bottles	1	121-0007
Formaldehyde SPILL-X-FP®, 6 shakers	1	121-0008
Eye and hand protection accessories kit	1 KIT	121-0014

* Multipurpose SPILL-X® kit contains 2× SPILL-X-A® acid, 2× SPILL-X-C® caustic and 2× SPILL-X-S® solvent agents.

** Formaldehyde SPILL-X® kit includes 3× SPILL-X-FP® formaldehyde and 3× SPILL-S® solvent agents.

Refill sets, SPILL-X®

These refill sets can be used with five types of SPILL-X® treatment kits. They are available in different formats.

- Each set comprises of 6 bottles

Multipurpose SPILL-X® set contains 2 acid, 2 caustic and 2 solvent agents whereas formaldehyde SPILL-X-FP® refill set comprise of 3 formaldehyde and 3 solvent agents.

Description	Pk	Cat. No.
Acid refill, SPILL-X®, 6 bottle set (1 kg)	6	121-0010
Caustic refill, SPILL-X®, 6 bottle set	1	121-0011
Formaldehyde refill, SPILL-X-FP®, 6 bottle set	1 Set	121-0013
Multipurpose refill, SPILL-X®	1	121-0009
Solvent refill, SPILL-X®, 6 bottle set	1 Set	121-0012

Spinetch® D

Spinetch® D VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
56997565.	276 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Spinetch® E

Danger
H330 H301+H311 H314
P280 P284 P301+P330+P331 P302+P352 P304+P340
P305+P351+P338 P309+P310
UN: 2922
ADR 8,I
Storage Temperature: Ambient temperature

Spinetch® E Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
56996346.	320 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Spirit, Methylated industrial or mineralised

See Ethanol denatured

Spirit

See Ethanol absolute p.172

SSC buffer solid

Storage Temperature: Ambient temperature

SSC buffer solid, ultrapure

Each tablet prepares 100 ml of a 1X TBS solution when dissolved in 100 ml dH_2O. 1X TBS contains 25 mM Tris, 140 mM sodium chloride, and 3.0 mM potassium chloride.

Tablet Weight ..... 1180 - 1220 mg

Cat. No.	Pk	Pack type
K859-100TABS	100 Tab.	Plastic bottle for solids
K859-200TABS	200 Tab.	Plastic bottle for solids

SSC buffer solid for 20x concentrated solution, ultrapure

Each Ready-Pack™ prepares 1 litre of 20X saline-sodium-citrate concentrate. 1X SSC contains 150 mM sodium chloride and 15 mM sodium citrate.

Chloride Content (1 %, Water) ..... 110 - 120 meq/L
pH (1 %, Water) @25 °C ..... 7.85 - 8.15
Solubility (1%, Water) ..... PASS

Cat. No.	Pk	Pack type
0794-2PK	2	Set of items

SSC buffer solution 20x concentrate (saline-sodium citrate)

Storage Temperature: Ambient temperature

SSC buffer solution 20x concentrate (saline-sodium citrate), ultrapure

A hybridization buffer for Northern and Southern blots.

pH @25 °C ..... 6.85 - 7.15

Cat. No.	Pk	Pack type
0804-4L	4 l	Bag-in-box (Cubitainer)

SSC buffer 10x with 0.5% SDS, ultrapure

10X SSC/0.5% buffer contains 1500 mM sodium chloride, 150 mM sodium citrate, 0.5% SDS.

Chloride Concentration ..... 1.35 - 1.65 M
pH @45 °C ..... 6.55 - 6.85
SDS Concentration ..... 0.40 - 0.60 %

Cat. No.	Pk	Pack type
K612-1L	1 l	Plastic bottle for solids

SSPE buffer tablets

SSPE buffer, tablets, proteomics grade

Hybridisation buffer for Northern and Southern blots. Each tablet prepares 100 ml of a 1x solution.

Conductivity (1tab/100mL Water)@25 °C ..... REPORT
DNase ..... NONE
pH (1tab/100mL Water)@25 °C ..... 7.25 - 7.55
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
M284-100TABS	100 Tab.	Plastic bottle for solids

SSPE buffer, 20x solution, ultrapure

A hybridisation buffer for Northern and Southern blots. This 1x solution of SSPE buffer contains 150 mM sodium chloride, 10 mM sodium phosphate, and 1 mM EDTA. Each litre prepares 20 L of 1x saline-sodium phosphate-EDTA buffer.

DNase ..... NONE
pH @25 °C ..... 7.25 - 7.55
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
0810-4L	4 l	Bag-in-box (Cubitainer)

SSPE buffer 0.1x with 0.2% SDS

SSPE buffer 0.1x with 0.2% SDS, ultrapure

Ready to use microarray hybridisation buffer that provides high sensitivity and low background.

Chloride Concentration ..... 14.0 - 16.0 mM
SDS Concentration ..... 0.19 - 0.21 %

Cat. No.	Pk	Pack type
K611-1L	1 l	Plastic bottle for solids

Standard colour reference solutions Reag.Ph.Eur.

Colour Reference Solution B (brown) for testing the colour intensity acc. to Ph. Eur. B1-B9

Danger
H350i H412
P201 P281 P273 P308+P313
UN: 1789
ADR 8,III

Restricted to professional users. Contains $CoCl_2$.
Density: ~ 1.03 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Colour Reference Solution B (brown) for testing the colour intensity acc. to Ph. Eur. B1-B9 Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87169.180	125 ml	Glass bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Colour Reference Solution BY (brownish yellow) for testing the colour intensity acc. to Ph. Eur. BY1-BY7

Danger
H350i H412
P201 P281 P273 P308+P313
UN: 1789
ADR 8,III

Restricted to professional users. Contains $CoCl_2$.
Density: ~ 1.03 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Colour Reference Solution BY (brownish yellow) for testing the colour intensity acc. to Ph. Eur. BY1-BY7 Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85748.180	125 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Colour Reference Solution GY (greenish yellow) for testing the colour intensity acc. to Ph. Eur. GY1-GY7

Danger
H350i H412
P201 P281 P273 P308+P313
UN: 3082
ADR 9,III

Restricted to professional users. Contains $CoCl_2$.

Colour Reference Solution GY (greenish yellow) for testing the colour intensity acc. to Ph. Eur. GY1-GY7 Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85750.180	125 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7

Danger
H350i H412
P201 P281 P273 P308+P313
UN: 1789
ADR 8,III

Restricted to professional users. Contains $CoCl_2$.

Colour Reference Solution R (red) for testing the colour intensity acc. to Ph. Eur. R1-R7 Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85751.180	125 ml	Plastic bottle
85751.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Colour Reference Solution Y (yellow) for testing the colour intensity acc. to Ph. Eur. Y1-Y7

Danger
H350i H412
P201 P281 P273 P308+P313
UN: 1789
ADR 8,III

Restricted to professional users. Contains $CoCl_2$.
Density: ~ 1.03 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Colour Reference Solution Y (yellow) for testing the colour intensity acc. to Ph. Eur. Y1-Y7 Reag. Ph. Eur.

Cat. No.	Pk	Pack type
85749.180	125 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Standards UV/Vis

- Bandwidth standards packed in six permanently sealed UV cuvettes or 100 ml amber bottle
- Wavelength standards (certified at 0,1; 0,2; 0,5; 1; 2 and 5 nm slit widths) packed in six permanently sealed UV cuvettes or 100 ml amber bottle
- Linearity standards at 213 and 261 nm, packed in six permanently sealed UV cuvettes or 100 ml amber bottle
- Linearity standards at 235, 257, 313 and 350 nm packed in six permanently sealed UV cuvettes or 100 ml amber bottle
- Stray light standards packed in six permanently sealed UV Cuvettes or 100 ml amber bottle

Bandwidth standards

Bandwidth standards packed in six permanently sealed UV cuvettes or 100 ml amber bottle

NEW **Bandwidth standard toluene in hexane with blank in sealed cuvettes, ratio of 268.7 nm peak to 266.8 nm trough (set of 2 permanently sealed UV cuvettes)**

Cat. No.	Pk	Pack type
84830.600	1 SET	Set of items

NEW **Bandwidth standard - blank - ratio of 268.7 nm peak to 266.8 nm trough (single permanently sealed UV cuvette)**

Cat. No.	Pk	Pack type
84832.600	1 SET	Set of items

NEW **Bandwidth standard toluene in hexane, ratio of 268.7 nm peak to 266.8 nm trough**

Cat. No.	Pk	Pack type
84833.180	100 ml	Glass bottle

NEW **Bandwidth standard blank, ratio of 268.7 nm peak to 266.8 nm trough**

Cat. No.	Pk	Pack type
84795.180	100 ml	Glass bottle

Wavelength standards

Wavelength standards (certified at 0,1; 0,2; 0,5; 1; 2 and 5 nm slit widths) packed in six permanently sealed UV cuvettes or 100 ml amber bottle

NEW **Didymium solution UV and visible wavelength standard 298 nm to 865 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84772.600	1 SET	Set of items

NEW **Didymium solution UV and visible wavelength standard 298 nm to 865 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84775.180	100 ml	Glass bottle

NEW **Holmium oxide solution UV and visible wavelength standard 240 nm to 640 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84774.600	1 SET	Set of items

NEW **Holmium oxide solution UV and visible wavelength standard 240 nm to 640 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84777.180	100 ml	Glass bottle

NEW **Samarium solution UV and visible wavelength standard 235 nm to 480 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84773.600	1 SET	Set of items

NEW **Samarium solution UV and visible wavelength standard 235 nm to 480 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)**

Cat. No.	Pk	Pack type
84776.180	100 ml	Glass bottle

Linearity standards at 213 and 261 nm

Linearity standards at 213 and 261 nm, packed in six permanently sealed UV cuvettes or 100 ml amber bottle

NEW **Blank - 0.1M hydrochloric acid, linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84767.180	100 ml	Glass bottle

NEW **Nicotinic acid absorbance/transmission standard 6mg/l (single permanently sealed UV cuvette plus blank) linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84763.600	1 SET	Set of items

NEW **Nicotinic acid absorbance / transmission standard 6 mg/l linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84768.180	100 ml	Glass bottle

NEW **Nicotinic acid absorbance/transmission standard 12 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84764.600	1 SET	Set of items

NEW **Nicotinic acid absorbance/transmission standard 12 mg/l, linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84769.180	100 ml	Glass bottle

NEW **Nicotinic acid absorbance/transmission standard 18 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84765.600	1 SET	Set of items

NEW **Nicotinic acid absorbance/transmission standard 18 mg/l, linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84770.180	100 ml	Glass bottle

NEW **Nicotinic acid absorbance/transmission standard 24 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84766.600	1 SET	Set of items

NEW **Nicotinic acid absorbance/transmission standard 24 mg/l, linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84771.180	100 ml	Glass bottle

NEW **Nicotinic acid linearity set with blank in sealed cuvettes 0, 6,12,18, 24 mg/l (set of 5 permanently sealed UV cuvettes), linearity standards @ 213 and 261 nm**

Cat. No.	Pk	Pack type
84762.600	1 SET	Set of items

Linearity standards at 235, 257, 313 and 350 nm

Linearity standards at 235, 257, 313 and 350 nm packed in six permanently sealed UV cuvettes or 100 ml amber bottle

NEW **Blank - 0.001M perchloric acid 0mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84756.180	100 ml	Glass bottle

NEW **Linearity standards @ 235, 257, 313 and 350nm, potassium dichromate linearity set with blank - 0mg/l, 20mg/l, 40mg/l, 60mg/l, 80mg/l, 100mg/l (packed in six permanently sealed UV cuvettes)**

Cat. No.	Pk	Pack type
84750.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard - 20mg/l (packed in single permanently sealed UV cuvette plus blank)linearity standards @ 235, 257, 313 and 350nm**

Cat. No.	Pk	Pack type
84751.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard 20 mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84757.180	100 ml	Glass bottle

NEW **Potassium dichromate absorbance/ transmission standard 40mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84752.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard 40mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84758.180	100 ml	Glass bottle

NEW **Potassium dichromate absorbance/ transmission standard 60mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84753.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard 60 mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84759.180	100 ml	Glass bottle

NEW **Potassium dichromate absorbance/ transmission standard 80mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84754.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard 80 mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84760.180	100 ml	Glass bottle

NEW **Potassium dichromate absorbance/ transmission standard 100 mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84755.600	1 SET	Set of items

NEW **Potassium dichromate absorbance/ transmission standard 100mg/l, linearity standards @ 235, 257, 313 and 350 nm**

Cat. No.	Pk	Pack type
84761.180	100 ml	Glass bottle

Stray light standards

Stray light standards packed in six permanently sealed UV Cuvettes or 100 ml amber bottle

NEW **Stray light inorganic cut-off filter (200 nm) potassium chloride (single permanently sealed UV cuvette plus blank) stray light standards**

Cat. No.	Pk	Pack type
84783.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (200 nm), potassium chloride stray light standards**

Cat. No.	Pk	Pack type
84789.180	100 ml	Glass bottle

NEW **Stray light inorganic cut-off filter (205 nm) sodium chloride (single permanently sealed UV cuvette plus blank) stray light standards**

Cat. No.	Pk	Pack type
84782.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (205 nm), sodium chloride stray light standards**

Cat. No.	Pk	Pack type
84788.180	100 ml	Glass bottle

NEW **Stray light inorganic cut-off filter (227 nm), lithium carbonate (single permanently sealed UV cuvette plus blank) stray light standards**

Cat. No.	Pk	Pack type
84781.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (227 nm), lithium carbonate stray light standards**

Cat. No.	Pk	Pack type
84787.180	100 ml	Glass bottle

NEW **Stray light inorganic cut-off filter (260 nm), potassium iodide (single permanently sealed UV cuvette plus blank) stray light standards**

Cat. No.	Pk	Pack type
84779.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (260 nm), potassium iodide stray light standards**

Cat. No.	Pk	Pack type
84785.180	100 ml	Glass bottle

NEW **Stray light inorganic cut-off filter (260nm) – Sodium Iodide (single permanently sealed UV cuvette plus blank)**

Cat. No.	Pk	Pack type
84780.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (260 nm), sodium iodide stray light standards**

Cat. No.	Pk	Pack type
84786.180	100 ml	Glass bottle

NEW **Stray light inorganic cut-off filter (390 nm), sodium nitrite (single permanently sealed UV cuvette plus blank) stray light standards**

Cat. No.	Pk	Pack type
84778.600	1 SET	Set of items

NEW **Stray light inorganic cut-off filter (390 nm), sodium nitrite stray light standards**

Cat. No.	Pk	Pack type
84784.180	100 ml	Glass bottle

NEW **Stray light blank, aqueous stray light standards**

Cat. No.	Pk	Pack type
84829.180	100 ml	Glass bottle

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Standards solutions ICP, ICP-MS ARISTAR®

Description	Page	Pk	Cat. No.
Aluminium standard solution, 10,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3$) ARISTAR® standard for ICP	22, 472	100 ml	455012E
Aluminium standard solution, 10,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3$) ARISTAR® standard for ICP	22, 472	500 ml	455014G
Aluminium standard solution, 1,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3.9H_2O$) ARISTAR® standard for ICP	23, 472	100 ml	455002C
Aluminium standard solution, 1,000 mg/l Al in dil. nitric acid (from $Al(NO_3)_3.9H_2O$) ARISTAR® standard for ICP	23, 472	500 ml	455004E
Antimony standard solution, 10,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP-MS	48, 472	100 ml	457002K
Antimony standard solution, 1,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP	48, 472	100 ml	455022G
Antimony standard solution, 1,000 mg/l Sb in dil. nitric acid with tartaric acid (max. 1%) (from Sb) ARISTAR® standard for ICP-MS	48, 472	100 ml	456632H
Arsenic standard solution, 10,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP	50, 472	100 ml	455052M
Arsenic standard solution, 10,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP-MS	50, 472	100 ml	457012M
Arsenic standard solution, 1,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP	51, 472	100 ml	455042K
Arsenic standard solution, 1,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP	51, 472	500 ml	455044M
Arsenic standard solution, 1,000 mg/l As in dil. nitric acid (from As) ARISTAR® standard for ICP-MS	51, 472	100 ml	456642J
Barium standard solution, 10,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP	58, 472	100 ml	455072Q
Barium standard solution, 1,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP	58, 472	100 ml	455062X
Barium standard solution, 1,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP	58, 472	500 ml	455064Q
Barium standard solution, 1,000 mg/l Ba in dil. nitric acid (from $Ba(NO_3)_2$) ARISTAR® standard for ICP-MS	58, 472	100 ml	456652L
Beryllium standard solution, 10,000 mg/l Be in dil. nitric acid (from $BeO.(Be(OAc)_2)_3$) ARISTAR® standard for ICP	65, 472	100 ml	455092U
Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid (from Be) ARISTAR® standard for ICP-MS	65, 472	100 ml	456662N
Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid (from $BeO.(Be(OAc)_2)_3$) ARISTAR® standard for ICP	65, 472	100 ml	455082S
Beryllium standard solution, 1,000 mg/l Be in dil. nitric acid (from $BeO.(Be(OAc)_2)_3$) ARISTAR® standard for ICP	65, 472	500 ml	455084U
Bismuth standard solution, 10,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP	68, 472	500 ml	455114J
Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP	68, 472	100 ml	455102F
Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP	68, 472	500 ml	455104H
Bismuth standard solution, 1,000 mg/l Bi in dil. nitric acid (from Bi) ARISTAR® standard for ICP-MS	68, 472	100 ml	456672P
Boron standard solution, 10,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP	72, 472	100 ml	455132L
Boron standard solution, 10,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP	72, 472	500 ml	455134N
Boron standard solution, 1,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP	72, 472	100 ml	455122J
Boron standard solution, 1,000 mg/l B in ammonium hydroxide solution (max. 1%) (from $B(OH_3)$) ARISTAR® standard for ICP	72, 472	500 ml	455124L
Cadmium standard solution, 10,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP	89, 472	100 ml	455152P
Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP	89, 472	100 ml	455142N
Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP	89, 472	500 ml	455144P
Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid (from Cd) ARISTAR® standard for ICP-MS	89, 472	100 ml	456682R
Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP	90, 472	100 ml	455172T
Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP	90, 472	500 ml	455174V
Calcium standard solution, 10,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ICP-MS	90, 472	100 ml	457042S
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP	91, 472	100 ml	455162R
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $CaCO_3$) ARISTAR® standard for ICP	91, 472	500 ml	455164T
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ICP-MS	90, 472	100 ml	456692T
Cerium standard solution, 10,000 mg/l Ce in dil. nitric acid (from $(NH_4)_2Ce(NO_3)_6$) ARISTAR® standard for ICP	100, 472	100 ml	455192A
Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid (from $(NH_4)_2Ce(NO_3)_6$) ARISTAR® standard for ICP	100, 472	100 ml	455182V
Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid (from $(NH_4)_2Ce(NO_3)_6$) ARISTAR® standard for ICP	100, 472	500 ml	455184A
Cesium standard solution, 10,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP	101, 472	100 ml	455212K
Cesium standard solution, 10,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP	101, 472	500 ml	455214M
Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP	101, 472	100 ml	455202Y
Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid (from $CsNO_3$) ARISTAR® standard for ICP	101, 472	500 ml	455204K
Chromium standard solution, 10,000 mg/l Cr in 10% hydrochloric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	110, 472	100 ml	455252S
Chromium standard solution, 10,000 mg/l Cr in 10% hydrochloric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	110, 472	500 ml	455254U
Chromium standard solution, 10,000 mg/l Cr in dil. nitric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	110, 472	100 ml	455232X
Chromium standard solution, 10,000 mg/l Cr in dil. nitric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	110, 472	500 ml	455234Q
Chromium standard solution, 1,000 mg/l Cr in 10% hydrochloric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	111, 472	100 ml	455242Q
Chromium standard solution, 1,000 mg/l Cr in 10% hydrochloric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	111, 472	500 ml	455244S
Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	111, 472	100 ml	455222M
Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid (from $(NH_4)_2Cr_2O_7$) ARISTAR® standard for ICP	111, 472	500 ml	455224X
Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid (from Cr) ARISTAR® standard for ICP-MS	111, 472	100 ml	456702E
Cobalt standard solution, 10,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP	115, 472	100 ml	455272W
Cobalt standard solution, 10,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP-MS	115, 472	100 ml	457062W
Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid (from Co) ARISTAR® standard for ICP	115, 472	100 ml	455262U
Copper standard solution, 10,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP	122, 472	100 ml	455292D
Copper standard solution, 10,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP	122, 472	500 ml	455294F
Copper standard solution, 1,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP	122, 472	100 ml	455282B
Copper standard solution, 1,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP	122, 472	500 ml	455284D
Copper standard solution, 1,000 mg/l Cu in dil. nitric acid (from Cu) ARISTAR® standard for ICP-MS	122, 472	100 ml	456722Y
Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid (from Dy_2O_3) ARISTAR® standard for ICP	158, 472	100 ml	455302L

Description	Page	Pk	Cat. No.
Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid (from Dy_2O_3) ARISTAR® standard for ICP	158, 473	500 ml	455304N
Erbium standard solution, 1,000 mg/l Er in dil. nitric acid (from Er_2O_3) ARISTAR® standard for ICP	171, 473	500 ml	455324R
Europium standard solution, 1,000 mg/l Eu in dil. nitric acid (from Eu_2O_3) ARISTAR® standard for ICP	182, 473	100 ml	455342T
Europium standard solution, 1,000 mg/l Eu in dil. nitric acid (from Eu_2O_3) ARISTAR® standard for ICP	182, 473	500 ml	455344V
Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid (from Gd_2O_3) ARISTAR® standard for ICP	194, 473	100 ml	455362A
Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid (from Gd_2O_3) ARISTAR® standard for ICP	194, 473	500 ml	455364C
Gallium standard solution, 10,000 mg/l Ga in dil. nitric acid (from Ga) ARISTAR® standard for ICP	195, 473	100 ml	455392G
Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid (from Ga) ARISTAR® standard for ICP	195, 473	100 ml	455382E
Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid (from Ga) ARISTAR® standard for ICP	195, 473	500 ml	455384G
Germanium standard solution, 10,000 mg/l Ge in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2GeF_6$) ARISTAR® standard for ICP	197, 473	100 ml	455412Q
Germanium standard solution, 1,000 mg/l Ge in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2GeF_6$) ARISTAR® standard for ICP	198, 473	100 ml	455402X
Germanium standard solution, 1,000 mg/l Ge in water (from Ge) ARISTAR® standard for ICP-MS	197, 473	100 ml	456732K
Gold standard solution, 10,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP	204, 473	100 ml	455432U
Gold standard solution, 10,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP	204, 473	500 ml	455434W
Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP	205, 473	100 ml	455422S
Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP	205, 473	500 ml	455424U
Gold standard solution, 1,000 mg/l Au in 10% hydrochloric acid (from Au) ARISTAR® standard for ICP-MS	204, 473	100 ml	456742M
Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) (from HfO_2) ARISTAR® standard for ICP	210, 473	100 ml	455442W
Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) (from HfO_2) ARISTAR® standard for ICP	210, 473	500 ml	455444B
Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid (from Ho_2O_3) ARISTAR® standard for ICP	219, 473	100 ml	455462D
Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid (from Ho_2O_3) ARISTAR® standard for ICP	219, 473	500 ml	455464F
Indium standard solution, 10,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP	244, 473	100 ml	455492J
Indium standard solution, 1,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP	244, 473	100 ml	455482H
Indium standard solution, 1,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP	244, 473	500 ml	455484J
Indium standard solution, 1,000 mg/l In in dil. nitric acid (from In) ARISTAR® standard for ICP-MS	244, 473	100 ml	456752X
Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid (from $IrCl_3$) ARISTAR® standard for ICP	248, 473	100 ml	455502R
Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid (from $IrCl_3$) ARISTAR® standard for ICP	248, 473	500 ml	455504T
Iron standard solution, 10,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP	249, 473	100 ml	455532A
Iron standard solution, 10,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP	249, 473	500 ml	455534C
Iron standard solution, 10,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP-MS	249, 473	100 ml	457072B
Iron standard solution, 1,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP	249, 473	100 ml	455522V
Iron standard solution, 1,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP	249, 473	500 ml	455524A
Iron standard solution, 1,000 mg/l Fe in dil. nitric acid (from Fe) ARISTAR® standard for ICP-MS	249, 473	100 ml	456762Q
Lanthanum standard solution, 10,000 mg/l La in dil. nitric acid (from La_2O_3) ARISTAR® standard for ICP	261, 473	500 ml	455554G
Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid (from La_2O_3) ARISTAR® standard for ICP	261, 473	100 ml	455542C
Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid (from La_2O_3) ARISTAR® standard for ICP	261, 473	500 ml	455544E
Lead standard solution, 10,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP	263, 473	100 ml	455572Y
Lead standard solution, 10,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP	263, 473	500 ml	455574K
Lead standard solution, 1,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP-MS	263, 473	100 ml	456772S
Lead standard solution, 1,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP	263, 473	100 ml	455562G
Lead standard solution, 1,000 mg/l Pb in dil. nitric acid (from $Pb(NO_3)_2$) ARISTAR® standard for ICP	263, 473	500 ml	455564Y
Lithium standard solution, 10,000 mg/l Li in dil. nitric acid (from Li_2CO_3) ARISTAR® standard for ICP	267, 473	500 ml	455594X
Lithium standard solution, 10,000 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ICP-MS	267, 473	100 ml	456782U
Lithium standard solution, 1,000 mg/l Li in dil. nitric acid (from Li_2CO_3) ARISTAR® standard for ICP	267, 473	100 ml	455582K
Lithium standard solution, 1,000 mg/l Li in dil. nitric acid (from Li_2CO_3) ARISTAR® standard for ICP	267, 473	500 ml	455584M
Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid (from Lu_2O_3) ARISTAR® standard for ICP	270, 473	100 ml	455602U
Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid (from Lu_2O_3) ARISTAR® standard for ICP	270, 473	500 ml	455604W
Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ICP-MS	272, 473	100 ml	457082D
Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP	272, 473	100 ml	455632D
Magnesium standard solution, 10,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP	272, 473	500 ml	455634F
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ICP-MS	272, 473	100 ml	456792W
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP	272, 473	100 ml	455622B
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from MgO) ARISTAR® standard for ICP	272, 473	500 ml	455624D
Manganese standard solution, 10,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP	278, 473	100 ml	455652H
Manganese standard solution, 10,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP	278, 473	500 ml	455654J
Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP	278, 473	100 ml	455642F
Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid (from $Mn(OAc)_2$) ARISTAR® standard for ICP	278, 473	500 ml	455644H
Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid (from Mn) ARISTAR® standard for ICP-MS	278, 473	100 ml	456802H
Mercury standard solution, 10,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP	282, 473	100 ml	455672L
Mercury standard solution, 10,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP	282, 473	500 ml	455674N
Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP	282, 473	100 ml	455662J
Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP	282, 473	500 ml	455664L
Mercury standard solution, 1,000 mg/l Hg in dil. nitric acid (from Hg) ARISTAR® standard for ICP-MS	282, 473	100 ml	456812J
Molybdenum standard solution, 10,000 mg/l Mo in ammonium hydroxide solution (max. 1%) (from $(NH_4)_2MoO_4$) ARISTAR® standard for ICP	315, 473	100 ml	455692P
Molybdenum standard solution, 1,000 mg/l Mo in ammonium hydroxide solution (max. 1%) (from $(NH_4)_2MoO_4$) ARISTAR® standard for ICP	315, 473	100 ml	455682N
Molybdenum standard solution, 1,000 mg/l Mo in ammonium hydroxide solution (max. 1%) (from $(NH_4)_2MoO_4$) ARISTAR® standard for ICP	315, 473	500 ml	455684P
Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid (from Nd_2O_3) ARISTAR® standard for ICP	319, 473	100 ml	455702A
Nickel standard solution, 10,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP	320, 473	100 ml	455732G
Nickel standard solution, 10,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP	320, 473	500 ml	455734Y
Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP	320, 473	100 ml	455722E
Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP	320, 473	500 ml	455724G
Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid (from Ni) ARISTAR® standard for ICP-MS	320, 473	100 ml	456832N
Niobium standard solution, 10,000 mg/l Nb in water with hydrofluoric acid (max. 1%) (from Nb_2O_5) ARISTAR® standard for ICP	323, 473	100 ml	455752K
Niobium standard solution, 1,000 mg/l Nb in water with hydrofluoric acid (max. 1%) (from Nb_2O_5) ARISTAR® standard for ICP	323, 473	100 ml	455742Y
Niobium standard solution, 1,000 mg/l Nb in water with hydrofluoric acid (max. 1%) (from Nb_2O_5) ARISTAR® standard for ICP	323, 473	500 ml	455744K

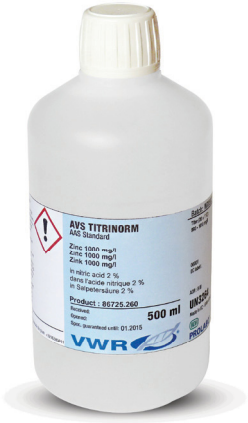
Description	Page	Pk	Cat. No.
Palladium standard solution, 10,000 mg/l Pd in 10% hydrochloric acid (from Pd) ARISTAR® standard for ICP	336, 474	100 ml	455772X
Palladium standard solution, 1,000 mg/l Pd in 10% hydrochloric acid (from Pd) ARISTAR® standard for ICP	336, 474	100 ml	455762M
Palladium standard solution, 1,000 mg/l Pd in 10% hydrochloric acid (from Pd) ARISTAR® standard for ICP	336, 474	500 ml	455764X
Phosphorus standard solution, 10,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP	363, 474	100 ml	455792S
Phosphorus standard solution, 10,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP	363, 474	500 ml	455794U
Phosphorus standard solution, 10,000 mg/l P in water (from P) ARISTAR® standard for ICP-MS	363, 474	100 ml	457112P
Phosphorus standard solution, 1,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP	363, 474	100 ml	455782Q
Phosphorus standard solution, 1,000 mg/l P in water (from $(NH_4)PO_4H_2$) ARISTAR® standard for ICP	363, 474	500 ml	455784S
Phosphorus standard solution, 1,000 mg/l P in water (from P) ARISTAR® standard for ICP-MS	363, 474	100 ml	456842P
Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid (from Pt) ARISTAR® standard for ICP	365, 474	100 ml	455802D
Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid (from Pt) ARISTAR® standard for ICP	365, 474	500 ml	455804F
Potassium standard solution, 10,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ICP-MS	369, 474	100 ml	457122R
Potassium standard solution, 10,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP	369, 474	100 ml	455832J
Potassium standard solution, 10,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP	369, 474	500 ml	455834L
Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ICP-MS	369, 474	100 ml	456852R
Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP	369, 474	100 ml	455822H
Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from KNO_3) ARISTAR® standard for ICP	369, 474	500 ml	455824J
Praseodymium standard solution, 1,000 mg/l Pr in dil. nitric acid (from Pr_6O_{11}) ARISTAR® standard for ICP	390, 474	100 ml	455842L
Rhenium standard solution, 10,000 mg/l Re in water with nitric acid (max. 1%) (from Re) ARISTAR® standard for ICP	409, 474	100 ml	455872R
Rhenium standard solution, 1,000 mg/l Re in water with nitric acid (max. 1%) (from Re) ARISTAR® standard for ICP	409, 474	100 ml	455862P
Rhenium standard solution, 1,000 mg/l Re in water with nitric acid (max. 1%) (from Re) ARISTAR® standard for ICP	409, 474	500 ml	455864R
Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid (from Rh) ARISTAR® standard for ICP-MS	409, 474	100 ml	456862T
Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid (from $RhCl_3$) ARISTAR® standard for ICP	409, 474	100 ml	455882T
Rhodium standard solution, 1,000 mg/l Rh in 10% hydrochloric acid (from $RhCl_3$) ARISTAR® standard for ICP	409, 474	500 ml	455884V
Rubidium standard solution, 10,000 mg/l Rb in dil. nitric acid (from $RbNO_3$) ARISTAR® standard for ICP	411, 474	100 ml	455912Y
Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid (from $RbNO_3$) ARISTAR® standard for ICP	411, 474	100 ml	455902G
Ruthenium standard solution, 10,000 mg/l Ru in 10% hydrochloric acid (from $RuCl_3$) ARISTAR® standard for ICP	412, 474	100 ml	455932M
Ruthenium standard solution, 1,000 mg/l Ru in 10% hydrochloric acid (from $RuCl_3$) ARISTAR® standard for ICP	412, 474	100 ml	455922K
Ruthenium standard solution, 1,000 mg/l Ru in 10% hydrochloric acid (from $RuCl_3$) ARISTAR® standard for ICP	412, 474	500 ml	455924M
Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid (from Sm_2O_3) ARISTAR® standard for ICP	414, 474	100 ml	455942X
Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid (from Sm_2O_3) ARISTAR® standard for ICP	414, 474	500 ml	455944Q
Scandium standard solution, 10,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP	415, 474	100 ml	455972U
Scandium standard solution, 10,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP	415, 474	500 ml	455974W
Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid (from Sc) ARISTAR® standard for ICP-MS	416, 474	100 ml	456872V
Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP	416, 474	100 ml	455962S
Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid (from Sc_2O_3) ARISTAR® standard for ICP	416, 474	500 ml	455964U
Selenium standard solution, 10,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP	417, 474	100 ml	455992B
Selenium standard solution, 1,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP	418, 474	100 ml	455982W
Selenium standard solution, 1,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP	418, 474	500 ml	455984B
Selenium standard solution, 1,000 mg/l Se in dil. nitric acid (from Se) ARISTAR® standard for ICP-MS	418, 474	100 ml	456882A
Silicon standard solution, 10,000 mg/l Si in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2SiF_6$) ARISTAR® standard for ICP	419, 474	100 ml	456012Y
Silicon standard solution, 1,000 mg/l Si in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2SiF_6$) ARISTAR® standard for ICP	420, 474	100 ml	456002G
Silicon standard solution, 1,000 mg/l Si in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2SiF_6$) ARISTAR® standard for ICP	420, 474	500 ml	456004Y
Silver standard solution, 10,000 mg/l Ag in dil. nitric acid (from $AgNO_3$) ARISTAR® standard for ICP	425, 474	100 ml	456032M
Silver standard solution, 1,000 mg/l Ag in dil. nitric acid (from Ag) ARISTAR® standard for ICP-MS	426, 474	100 ml	456892C
Silver standard solution, 1,000 mg/l Ag in dil. nitric acid (from $AgNO_3$) ARISTAR® standard for ICP	426, 474	100 ml	456022K
Silver standard solution, 1,000 mg/l Ag in dil. nitric acid (from $AgNO_3$) ARISTAR® standard for ICP	426, 474	500 ml	456024M
Sodium standard solution, 10,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ICP-MS	429, 474	100 ml	457132T
Sodium standard solution, 10,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP	430, 474	100 ml	456052Q
Sodium standard solution, 10,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP	430, 474	500 ml	456054S
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ICP-MS	430, 474	100 ml	456902K
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP	430, 474	100 ml	456042X
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from $NaNO_3$) ARISTAR® standard for ICP	430, 474	500 ml	456044Q
Strontium standard solution, 10,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP	474, 483	100 ml	456072U
Strontium standard solution, 10,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP	474, 483	500 ml	456074W
Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP-MS	474, 483	100 ml	456912M
Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP	474, 483	100 ml	456062S
Sulphur standard solution, 10,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP	474, 486	100 ml	456092B
Sulphur standard solution, 10,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP	474, 486	500 ml	456094D
Sulphur standard solution, 1,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP	474, 487	100 ml	456082W
Sulphur standard solution, 1,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP	474, 487	500 ml	456084B
Sulphur standard solution, 1,000 mg/l S in water (from S) ARISTAR® standard for ICP-MS	474, 486	100 ml	456922X
Tantalum standard solution, 1,000 mg/l Ta in water with hydrofluoric acid (max. 1%) (from Ta) ARISTAR® standard for ICP	474, 492	100 ml	456102J
Tantalum standard solution, 1,000 mg/l Ta in water with hydrofluoric acid (max. 1%) (from Ta) ARISTAR® standard for ICP	474, 492	500 ml	456104L
Tellurium standard solution, 10,000 mg/l Te in 40% hydrochloric acid (from Te) ARISTAR® standard for ICP	474, 496	100 ml	456132P
Tellurium standard solution, 1,000 mg/l Te in 20% hydrochloric acid (from Te) ARISTAR® standard for ICP	474, 496	100 ml	456122N
Tellurium standard solution, 1,000 mg/l Te in 20% hydrochloric acid (from Te) ARISTAR® standard for ICP	474, 496	500 ml	456124P
Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid (from Tb) ARISTAR® standard for ICP-MS	474, 497	100 ml	456932Q
Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid (from Tb_4O_7) ARISTAR® standard for ICP	474, 497	100 ml	456142R
Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid (from Tb_4O_7) ARISTAR® standard for ICP	474, 497	500 ml	456144T
Thallium standard solution, 10,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP	474, 502	100 ml	456172A
Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP	474, 502	100 ml	456162V
Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP-MS	474, 502	100 ml	456942S
Tin standard solution, 10,000 mg/l Sn in 10% hydrochloric acid (from Sn) ARISTAR® standard for ICP	474, 505	100 ml	456252W
Tin standard solution, 10,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP	474, 506	100 ml	456232S
Tin standard solution, 1,000 mg/l Sn in 10% hydrochloric acid (from Sn) ARISTAR® standard for ICP	474, 505	100 ml	456242U
Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP	474, 506	100 ml	456222Q
Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP	474, 506	500 ml	456224S

Description	Page	Pk	Cat. No.
Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP-MS	475, 506	100 ml	456952U
Titanium standard solution, 10,000 mg/l Ti in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2TiF_6$) ARISTAR® standard for ICP	475, 507	100 ml	456262B
Titanium standard solution, 10,000 mg/l Ti in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2TiF_6$) ARISTAR® standard for ICP	475, 507	500 ml	456264D
Titanium standard solution, 1,000 mg/l Ti in water with hydrofluoric acid (max. 1%) (from Ti) ARISTAR® standard for ICP-MS	475, 508	100 ml	456962W
Tungsten standard solution, 10,000 mg/l W in water (from W) ARISTAR® standard for ICP	475, 524	100 ml	457172E
Tungsten standard solution, 1,000 mg/l W in water (from W) ARISTAR® standard for ICP	475, 524	100 ml	457182G
Tungsten standard solution, 1,000 mg/l W in water (from W) ARISTAR® standard for ICP	475, 524	500 ml	457184Y
Vanadium standard solution, 10,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP	475, 531	100 ml	456332V
Vanadium standard solution, 10,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP	475, 531	500 ml	456334A
Vanadium standard solution, 1,000 mg/l V in dil. nitric acid (from V) ARISTAR® standard for ICP-MS	475, 531	100 ml	456972B
Vanadium standard solution, 1,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP	475, 531	100 ml	456322T
Vanadium standard solution, 1,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP	475, 531	500 ml	456324V
Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid (from Yb_2O_3) ARISTAR® standard for ICP	475, 547	500 ml	456344C
Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid (from Y) ARISTAR® standard for ICP-MS	475, 547	100 ml	456982D
Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP	475, 547	100 ml	456362E
Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP	475, 547	500 ml	456364G
Yttrium standard solution, 10,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP	475, 547	100 ml	456372G
Yttrium standard solution, 10,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP	475, 547	500 ml	456374Y
Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP	475, 549	100 ml	456392K
Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP	475, 549	500 ml	456394M
Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP-MS	475, 549	100 ml	457162C
Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP	475, 550	100 ml	456382Y
Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP	475, 550	500 ml	456384K
Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP-MS	475, 550	100 ml	456992F
Zirconium standard solution, 10,000 mg/l Zr in dil. nitric acid (from $ZrO(NO_3)_2$) ARISTAR® standard for ICP	475, 553	500 ml	456414W
Zirconium standard solution, 1,000 mg/l Zr in dil. nitric acid (from $ZrO(NO_3)_2$) ARISTAR® standard for ICP	475, 553	100 ml	456402S

Multi-element calibration standard

Description	Page	Pk	Cat. No.
ICP Blank, Hydrochloric acid ARISTAR®	235, 475	500 ml	456494P
Nitric acid 5% ARISTAR® for calibration blank in ICP	235, 475	500 ml	456484N
Multi-element calibration standard 1 in dil. nitric acid ARISTAR® for ICP	235, 475	100 ml	456452F
Multi-element calibration standard 2 in dil. nitric acid ARISTAR® for ICP	235, 475	100 ml	456462H
Multi-element calibration standard 3 in dil. nitric acid ARISTAR® for ICP	235, 475	100 ml	456472J
Multi-element quality control standard 2 in dil. nitric acid with a trace of hydrofluoric acid ARISTAR® for ICP	236, 475	100 ml	456432B
Multi-element quality control standard 2 in dil. nitric acid with a trace of hydrofluoric acid ARISTAR® for ICP	236, 475	500 ml	456434D
Multi-element quality control standard 3 in dil. nitric acid ARISTAR® for ICP	236, 475	100 ml	456442D
Multi-element quality control standard 3 in dil. nitric acid ARISTAR® for ICP	236, 475	500 ml	456444F
Multi-element quality control standard 100 mg/l in hydrochloric acid 10% ARISTAR® for ICP	236, 475	100 ml	84792.180
Multi-element quality control standard 1.000 mg/l in nitric acid 4% ARISTAR® for ICP	236, 475	100 ml	87629.180
Multi-element quality control standard 100 mg/l in nitric acid 2% ARISTAR® for ICP	236, 475	100 ml	85006.186
Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP	236, 475	100 ml	89166.180
Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP	236, 475	100 ml	89186.180
Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP-MS	236, 475	250 ml	88175.230
Multi-element quality control standard 10 mg/l in nitric acid 5% ARISTAR® for ICP	236, 475	50 ml	88724.150
Multi-element quality control standard 10 mg/l in nitric acid 2% ARISTAR® for ICP-MS	236, 475	100 ml	84793.180
Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP	236, 475	100 ml	84790.180
Multi-element quality control standard 100 mg/l in nitric acid 5% ARISTAR® for ICP	236, 475	100 ml	84791.180
Multi-element quality control standard 100 mg/l in nitric acid 2% ARISTAR® for ICP	237, 475	100 ml	05200.185
Multi-element calibration standard 1 in dil. nitric acid ARISTAR® for ICP-MS	237, 475	100 ml	456622F
Multi-element calibration standard 2 in dil. nitric acid ARISTAR® for ICP-MS	237, 475	100 ml	456502V
Multi-element calibration standard 3 in hydrochloric acid 10% ARISTAR® for ICP-MS	237, 475	100 ml	456512A
Multi-element calibration standard 4 in water with a trace of hydrofluoric acid ARISTAR® for ICP-MS	237, 475	100 ml	456522C
Multi-element quality control standard 1 in dil. nitric acid ARISTAR® for ICP-MS	238, 475	100 ml	456592Q
Multi-element quality control standard 2 in dil. nitric acid ARISTAR® for ICP-MS	238, 475	100 ml	456602B
Multi-element quality control standard 100 mg/l, 23 elements in nitric acid 2-5% / hydrofluoric acid < 0.1% ARISTAR® 1 for ICP	237, 475	100 ml	456422W
Multi-element quality control standard 100 mg/l, 23 elements in nitric acid 2-5% / hydrofluoric acid < 0.1% ARISTAR® 1 for ICP	237, 475	500 ml	456424B
Multi-element quality control standard 10 mg/l, 12 elements in nitric acid 2% / hydrofluoric acid < 0.1% ARISTAR® for ICP-MS	237, 475	100 ml	84794.180
Interference check A in dil. nitric acid ARISTAR® for ICP-MS	238, 475	100 ml	456562K
Interference check A in nitric acid 1% ARISTAR® for ICP-MS	238, 475	100 ml	456552Y
Tuning solution 1 in dil. nitric acid ARISTAR® for ICP-MS	238, 475	100 ml	456532E
Tuning solution 2 in dil. nitric acid ARISTAR® for ICP-MS	238, 475	100 ml	456542G

AAS Standards AVS TITRINORM®



An extensive range of 66 AAS standards offered in 100 ml and 500 ml plastic bottles

- Range includes 37 elements new to this catalogue
- Bottles are delivered in an aluminium bag together with a comprehensive certificate of analysis
- Produced and tested in a facility with ISO Guide 34 and ISO 17025 accreditation
- Traceable to NIST

Description	Page	Pk	Cat. No.
Aluminium standard solution, 1,000 mg/l Al in 5% hydrochloric acid AVS TITRINORM® standard for AAS	23, 476	100 ml	86660.180
Aluminium standard solution, 1,000 mg/l Al in 5% hydrochloric acid AVS TITRINORM® standard for AAS	23, 476	500 ml	86660.260
Antimony standard solution, 1,000 mg/l Sb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	48, 476	100 ml	86707.180
Antimony standard solution, 1,000 mg/l Sb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	48, 476	500 ml	86707.260
Arsenic standard solution, 1,000 mg/l As in dil. nitric acid AVS TITRINORM® standard for AAS	51, 476	100 ml	86661.180
Arsenic standard solution, 1,000 mg/l As in dil. nitric acid AVS TITRINORM® standard for AAS	51, 476	500 ml	86661.260
Barium standard solution, 1,000 mg/l Ba in dil. nitric acid AVS TITRINORM® standard for AAS	58, 476	100 ml	86664.180
Barium standard solution, 1,000 mg/l Ba in dil. nitric acid AVS TITRINORM® standard for AAS	58, 476	500 ml	86664.260
Beryllium standard solution, 1,000 mg/l Be in 2% hydrochloric acid AVS TITRINORM® standard for AAS	65, 476	100 ml	86665.180
Beryllium standard solution, 1,000 mg/l Be in 2% hydrochloric acid AVS TITRINORM® standard for AAS	65, 476	500 ml	86665.260
Bismuth standard solution, 1,000 mg/l Bi in 10% nitric acid AVS TITRINORM® standard for AAS	69, 476	100 ml	86666.180
Bismuth standard solution, 1,000 mg/l Bi in 10% nitric acid AVS TITRINORM® standard for AAS	69, 476	500 ml	86666.260
Boron standard solution, 1,000 mg/l B in water AVS TITRINORM® standard for AAS	72, 476	100 ml	86663.180
Boron standard solution, 1,000 mg/l B in water AVS TITRINORM® standard for AAS	72, 476	500 ml	86663.260
Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid AVS TITRINORM® standard for AAS	89, 476	100 ml	86668.180
Cadmium standard solution, 1,000 mg/l Cd in dil. nitric acid AVS TITRINORM® standard for AAS	89, 476	500 ml	86668.260
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $Ca(NO_3)_2$) AVS TITRINORM® standard for AAS	91, 476	100 ml	86667.180
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from $Ca(NO_3)_2$) AVS TITRINORM® standard for AAS	91, 476	500 ml	86667.260
Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid AVS TITRINORM® standard for AAS	100, 476	100 ml	86669.180
Cerium standard solution, 1,000 mg/l Ce in dil. nitric acid AVS TITRINORM® standard for AAS	100, 476	500 ml	86669.260
Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid AVS TITRINORM® standard for AAS	101, 476	100 ml	86672.180
Cesium standard solution, 1,000 mg/l Cs in dil. nitric acid AVS TITRINORM® standard for AAS	101, 476	500 ml	86672.260
Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid AVS TITRINORM® standard for AAS	111, 476	100 ml	86671.180
Chromium standard solution, 1,000 mg/l Cr in dil. nitric acid AVS TITRINORM® standard for AAS	111, 476	500 ml	86671.260
Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid AVS TITRINORM® standard for AAS	115, 476	100 ml	86670.180
Cobalt standard solution, 1,000 mg/l Co in dil. nitric acid AVS TITRINORM® standard for AAS	115, 476	500 ml	86670.260
Copper standard solution, 1,000 mg/l Cu in dil. nitric acid AVS TITRINORM® standard for AAS	123, 476	100 ml	86673.180
Copper standard solution, 1,000 mg/l Cu in dil. nitric acid AVS TITRINORM® standard for AAS	123, 476	500 ml	86673.260
Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid AVS TITRINORM® standard for AAS	158, 476	100 ml	86674.180
Dysprosium standard solution, 1,000 mg/l Dy in dil. nitric acid AVS TITRINORM® standard for AAS	158, 476	500 ml	86674.260
Erbium standard solution, 1,000 mg/l Er in dil. nitric acid AVS TITRINORM® standard for AAS	171, 476	100 ml	86675.180
Erbium standard solution, 1,000 mg/l Er in dil. nitric acid AVS TITRINORM® standard for AAS	171, 476	500 ml	86675.260
Europium standard solution, 1,000 mg/l Eu in dil. nitric acid AVS TITRINORM® standard for AAS	182, 476	100 ml	86676.180
Europium standard solution, 1,000 mg/l Eu in dil. nitric acid AVS TITRINORM® standard for AAS	182, 476	500 ml	86676.260
Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid AVS TITRINORM® standard for AAS	194, 476	100 ml	86679.180
Gadolinium standard solution, 1,000 mg/l Gd in dil. nitric acid AVS TITRINORM® standard for AAS	194, 476	500 ml	86679.260
Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid AVS TITRINORM® standard for AAS	195, 476	100 ml	86678.180
Gallium standard solution, 1,000 mg/l Ga in dil. nitric acid AVS TITRINORM® standard for AAS	195, 476	500 ml	86678.260
Germanium standard solution, 1,000 mg/l Ge in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	198, 476	100 ml	86680.180
Germanium standard solution, 1,000 mg/l Ge in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	198, 476	500 ml	86680.260
Gold standard solution, 1,000 mg/l Au in 5% hydrochloric acid AVS TITRINORM® standard for AAS	205, 476	100 ml	86662.180
Gold standard solution, 1,000 mg/l Au in 5% hydrochloric acid AVS TITRINORM® standard for AAS	205, 476	500 ml	86662.260
Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	210, 476	100 ml	86681.180
Hafnium standard solution, 1,000 mg/l Hf in dil. nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	210, 476	500 ml	86681.260
Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid AVS TITRINORM® standard for AAS	219, 476	100 ml	86683.180
Holmium standard solution, 1,000 mg/l Ho in dil. nitric acid AVS TITRINORM® standard for AAS	219, 476	500 ml	86683.260
Indium standard solution, 1,000 mg/l In in dil. nitric acid AVS TITRINORM® standard for AAS	244, 476	100 ml	86684.180
Indium standard solution, 1,000 mg/l In in dil. nitric acid AVS TITRINORM® standard for AAS	244, 476	500 ml	86684.260
Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid AVS TITRINORM® standard for AAS	248, 476	100 ml	86685.180
Iridium standard solution, 1,000 mg/l Ir in 10% hydrochloric acid AVS TITRINORM® standard for AAS	248, 476	500 ml	86685.260
Iron standard solution, 1,000 mg/l Fe in 2% hydrochloric acid AVS TITRINORM® standard for AAS	249, 476	100 ml	86677.180
Iron standard solution, 1,000 mg/l Fe in 2% hydrochloric acid AVS TITRINORM® standard for AAS	249, 476	500 ml	86677.260
Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid AVS TITRINORM® standard for AAS	261, 476	100 ml	86687.180
Lanthanum standard solution, 1,000 mg/l La in dil. nitric acid AVS TITRINORM® standard for AAS	261, 476	500 ml	86687.260
Lead standard solution, 1,000 mg/l Pb in dil. nitric acid AVS TITRINORM® standard for AAS	263, 476	100 ml	86699.180
Lead standard solution, 1,000 mg/l Pb in dil. nitric acid AVS TITRINORM® standard for AAS	263, 476	500 ml	86699.260
Lithium standard solution, 1,000 mg/l Li in dil. nitric acid AVS TITRINORM® standard for AAS	267, 476	100 ml	86688.180

Description	Page	Pk	Cat. No.
Lithium standard solution, 1,000 mg/l Li in dil. nitric acid AVS TITRINORM® standard for AAS	267, 477	500 ml	86688.260
Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid AVS TITRINORM® standard for AAS	270, 477	100 ml	86689.180
Lutetium standard solution, 1,000 mg/l Lu in dil. nitric acid AVS TITRINORM® standard for AAS	270, 477	500 ml	86689.260
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid AVS TITRINORM® standard for AAS	272, 477	100 ml	86690.180
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid AVS TITRINORM® standard for AAS	272, 477	500 ml	86690.260
Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid AVS TITRINORM® standard for AAS	278, 477	100 ml	86691.180
Manganese standard solution, 1,000 mg/l Mn in dil. nitric acid AVS TITRINORM® standard for AAS	278, 477	500 ml	86691.260
Mercury standard solution, 1,000 mg/l Hg in 10% nitric acid AVS TITRINORM® standard for AAS	282, 477	100 ml	86682.180
Mercury standard solution, 1,000 mg/l Hg in 10% nitric acid AVS TITRINORM® standard for AAS	282, 477	500 ml	86682.260
Molybdenum standard solution, 1,000 mg/l Mo in water AVS TITRINORM® standard for AAS	315, 477	100 ml	86692.180
Molybdenum standard solution, 1,000 mg/l Mo in water AVS TITRINORM® standard for AAS	315, 477	500 ml	86692.260
Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid AVS TITRINORM® standard for AAS	319, 477	100 ml	86695.180
Neodymium standard solution, 1,000 mg/l Nd in dil. nitric acid AVS TITRINORM® standard for AAS	319, 477	500 ml	86695.260
Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid AVS TITRINORM® standard for AAS	320, 477	100 ml	86696.180
Nickel standard solution, 1,000 mg/l Ni in dil. nitric acid AVS TITRINORM® standard for AAS	320, 477	500 ml	86696.260
Niobium standard solution, 1,000 mg/l Nb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	323, 477	100 ml	86694.180
Niobium standard solution, 1,000 mg/l Nb in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	323, 477	500 ml	86694.260
Osmium standard solution, 1,000 mg/l Os in 5% hydrochloric acid AVS TITRINORM® standard for AAS	334, 477	100 ml	86697.180
Osmium standard solution, 1,000 mg/l Os in 5% hydrochloric acid AVS TITRINORM® standard for AAS	334, 477	500 ml	86697.260
Palladium standard solution, 1,000 mg/l Pd in 5% hydrochloric acid AVS TITRINORM® standard for AAS	336, 477	100 ml	86700.180
Palladium standard solution, 1,000 mg/l Pd in 5% hydrochloric acid AVS TITRINORM® standard for AAS	336, 477	500 ml	86700.260
Phosphorus standard solution, 1,000 mg/l P in water AVS TITRINORM® standard for AAS	364, 477	100 ml	86698.180
Phosphorus standard solution, 1,000 mg/l P in water AVS TITRINORM® standard for AAS	364, 477	500 ml	86698.260
Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid AVS TITRINORM® standard for AAS	365, 477	100 ml	86701.180
Platinum standard solution, 1,000 mg/l Pt in 10% hydrochloric acid AVS TITRINORM® standard for AAS	365, 477	500 ml	86701.260
Potassium standard solution, 1,000 mg/l K in dil. nitric acid AVS TITRINORM® standard for AAS	369, 477	100 ml	86686.180
Potassium standard solution, 1,000 mg/l K in dil. nitric acid AVS TITRINORM® standard for AAS	369, 477	500 ml	86686.260
Rhenium standard solution, 1,000 mg/l Re in dil. nitric acid AVS TITRINORM® standard for AAS	409, 477	100 ml	86703.180
Rhenium standard solution, 1,000 mg/l Re in dil. nitric acid AVS TITRINORM® standard for AAS	409, 477	500 ml	86703.260
Rhodium standard solution, 1,000 mg/l Rh in 5% hydrochloric acid AVS TITRINORM® standard for AAS	409, 477	100 ml	86704.180
Rhodium standard solution, 1,000 mg/l Rh in 5% hydrochloric acid AVS TITRINORM® standard for AAS	409, 477	500 ml	86704.260
Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid AVS TITRINORM® standard for AAS	411, 477	100 ml	86702.180
Rubidium standard solution, 1,000 mg/l Rb in dil. nitric acid AVS TITRINORM® standard for AAS	411, 477	500 ml	86702.260
Ruthenium standard solution, 1,000 mg/l Ru in 5% hydrochloric acid AVS TITRINORM® standard for AAS	412, 477	100 ml	86705.180
Ruthenium standard solution, 1,000 mg/l Ru in 5% hydrochloric acid AVS TITRINORM® standard for AAS	412, 477	500 ml	86705.260
Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid AVS TITRINORM® standard for AAS	414, 477	100 ml	86711.180
Samarium standard solution, 1,000 mg/l Sm in dil. nitric acid AVS TITRINORM® standard for AAS	414, 477	500 ml	86711.260
Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid AVS TITRINORM® standard for AAS	416, 477	100 ml	86708.180
Scandium standard solution, 1,000 mg/l Sc in dil. nitric acid AVS TITRINORM® standard for AAS	416, 477	500 ml	86708.260
Selenium standard solution, 1,000 mg/l Se in dil. nitric acid AVS TITRINORM® standard for AAS	418, 477	100 ml	86709.180
Selenium standard solution, 1,000 mg/l Se in dil. nitric acid AVS TITRINORM® standard for AAS	418, 477	500 ml	86709.260
Silicon standard solution, 1,000 mg/l Si in water AVS TITRINORM® standard for AAS	420, 477	100 ml	86710.180
Silicon standard solution, 1,000 mg/l Si in water AVS TITRINORM® standard for AAS	420, 477	500 ml	86710.260
Silver standard solution, 1,000 mg/l Ag in dil. nitric acid AVS TITRINORM® standard for AAS	426, 477	100 ml	86659.180
Silver standard solution, 1,000 mg/l Ag in dil. nitric acid AVS TITRINORM® standard for AAS	426, 477	500 ml	86659.260
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid AVS TITRINORM® standard for AAS	430, 477	100 ml	86693.180
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid AVS TITRINORM® standard for AAS	430, 477	500 ml	86693.260
Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid AVS TITRINORM® standard for AAS	477, 483	100 ml	86713.180
Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid AVS TITRINORM® standard for AAS	477, 483	500 ml	86713.260
Sulphur standard solution, 1,000 mg/l S in water AVS TITRINORM® standard for AAS	477, 487	100 ml	86706.180
Sulphur standard solution, 1,000 mg/l S in water AVS TITRINORM® standard for AAS	477, 487	500 ml	86706.260
Tantalum standard solution, 1,000 mg/l Ta in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 493	100 ml	86714.180
Tantalum standard solution, 1,000 mg/l Ta in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 493	500 ml	86714.260
Tellurium standard solution, 1,000 mg/l Te in 10% nitric acid AVS TITRINORM® standard for AAS	477, 496	100 ml	86715.180
Tellurium standard solution, 1,000 mg/l Te in 10% nitric acid AVS TITRINORM® standard for AAS	477, 496	500 ml	86715.260
Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid AVS TITRINORM® standard for AAS	477, 502	100 ml	86718.180
Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid AVS TITRINORM® standard for AAS	477, 502	500 ml	86718.260
Thulium standard solution, 1,000 mg/l Tm in dil. nitric acid AVS TITRINORM® standard for AAS	477, 504	100 ml	86719.180
Thulium standard solution, 1,000 mg/l Tm in dil. nitric acid AVS TITRINORM® standard for AAS	477, 504	500 ml	86719.260
Tin standard solution, 1,000 mg/l Sn in 20% hydrochloric acid AVS TITRINORM® standard for AAS	477, 506	100 ml	86712.180
Tin standard solution, 1,000 mg/l Sn in 20% hydrochloric acid AVS TITRINORM® standard for AAS	477, 506	500 ml	86712.260
Titanium standard solution, 1,000 mg/l Ti in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 508	100 ml	86717.180
Titanium standard solution, 1,000 mg/l Ti in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 508	500 ml	86717.260
Tungsten standard solution, 1,000 mg/l W in nitric acid with hydrofluoric acid (each max. 1%) AVS TITRINORM® standard for AAS	477, 524	100 ml	86722.180
Tungsten standard solution, 1,000 mg/l W in nitric acid with hydrofluoric acid (each max. 1%) AVS TITRINORM® standard for AAS	477, 524	500 ml	86722.260
Vanadium standard solution, 1,000 mg/l V in 2% sulphuric acid AVS TITRINORM® standard for AAS	477, 531	100 ml	86721.180
Vanadium standard solution, 1,000 mg/l V in 2% sulphuric acid AVS TITRINORM® standard for AAS	477, 531	500 ml	86721.260
Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid AVS TITRINORM® standard for AAS	477, 547	100 ml	86724.180
Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid AVS TITRINORM® standard for AAS	477, 547	500 ml	86724.260
Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid AVS TITRINORM® standard for AAS	477, 547	100 ml	86723.180
Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid AVS TITRINORM® standard for AAS	477, 547	500 ml	86723.260
Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid AVS TITRINORM® standard for AAS	477, 550	100 ml	86725.180
Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid AVS TITRINORM® standard for AAS	477, 550	500 ml	86725.260
Zirconium standard solution, 1,000 mg/l Zr in 5% hydrochloric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 554	100 ml	86726.180
Zirconium standard solution, 1,000 mg/l Zr in 5% hydrochloric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS	477, 554	500 ml	86726.260

Standard solutions IC

Description	Page	Pk	Cat. No.
Ammonium standard solution, 1,000 mg/l NH_4 in dil. nitric acid ARISTAR® standard for ion chromatography	29, 478	100 ml	458192M
Anion multi component standard 1 aqueous solution ARISTAR® for ion chromatography	47, 478	100 ml	458142C
Anion multi component standard 2 aqueous solution ARISTAR® for ion chromatography	47, 478	100 ml	458152E
Anion multi component standard 3 aqueous solution ARISTAR® for ion chromatography	47, 478	1 SET	458164C
Bromide standard solution, 1,000 mg/l Br- in water (from NaBr) ARISTAR® standard for ion chromatography	74, 478	100 ml	458042W
Bromide standard solution, 1,000 mg/l Br- in water (from NaBr) ARISTAR® standard for ion chromatography	74, 478	500 ml	458044B
Calcium standard solution, 1,000 mg/l Ca in dil. nitric acid (from Ca) ARISTAR® standard for ion chromatography	91, 478	100 ml	458202U
Cation multi component standard 1 in water with a trace of nitric acid ARISTAR® for ion chromatography	99, 478	100 ml	458352K
Cation multi component standard 2 in water with a trace of nitric acid ARISTAR® for ion chromatography	99, 478	100 ml	458362M
Chloride standard solution, 1,000 mg/l Cl- in water (from NaCl) ARISTAR® standard for ion chromatography	105, 478	100 ml	458012Q
Chloride standard solution, 1,000 mg/l Cl- in water (from NaCl) ARISTAR® standard for ion chromatography	105, 478	500 ml	458014S
Chloride standard solution, 200 mg/l Cl- in water (from NaCl) ARISTAR® standard for ion chromatography	105, 478	100 ml	458082H
Fluoride standard solution, 1,000 mg/l F- in water (from NaF) ARISTAR® standard for ion chromatography	186, 478	100 ml	458002X
Fluoride standard solution, 1,000 mg/l F- in water (from NaF) ARISTAR® standard for ion chromatography	186, 478	500 ml	458004Q
Lithium standard solution, 1,000 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ion chromatography	267, 478	100 ml	458242F
Lithium standard solution, 200 mg/l Li in dil. nitric acid (from Li) ARISTAR® standard for ion chromatography	267, 478	100 ml	458322E
Magnesium standard solution, 1,000 mg/l Mg in dil. nitric acid (from Mg) ARISTAR® standard for ion chromatography	272, 478	100 ml	458212W
Nitrate standard solution, 1,000 mg/l NO_3^- in water (from $NaNO_3$) ARISTAR® standard for ion chromatography	323, 478	100 ml	458032U
Nitrate standard solution, 1,000 mg/l NO_3^- in water (from $NaNO_3$) ARISTAR® standard for ion chromatography	323, 478	500 ml	458034W
Nitrite standard solution, 1,000 mg/l nitrite in water (from $NaNO_2$) ARISTAR® standard for ion chromatography	327, 478	100 ml	458022S
Nitrite standard solution, 1,000 mg/l nitrite in water (from $NaNO_2$) ARISTAR® standard for ion chromatography	327, 478	500 ml	458024U
Nitrite standard solution, 200 mg/l nitrite in water (from $NaNO_2$) ARISTAR® standard for ion chromatography	327, 478	100 ml	458092J
Phosphate standard solution, 1,000 mg/l PO_4(3-) in water (from KH_2PO_4) ARISTAR® standard for ion chromatography	362, 478	100 ml	458052B
Phosphate standard solution, 1,000 mg/l PO_4(3-) in water (from KH_2PO_4) ARISTAR® standard for ion chromatography	362, 478	500 ml	458054D
Phosphate standard solution, 200 mg/l PO_4(3-) in water (from KH_2PO_4) ARISTAR® standard for ion chromatography	362, 478	100 ml	458122V
Potassium standard solution, 1,000 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ion chromatography	369, 478	100 ml	458222B
Potassium standard solution, 200 mg/l K in dil. nitric acid (from K) ARISTAR® standard for ion chromatography	370, 478	100 ml	458302A
Sodium standard solution, 1,000 mg/l Na in dil. nitric acid (from Na) ARISTAR® standard for ion chromatography	430, 478	100 ml	458232D
Sulphate standard solution, 1,000 mg/l $(SO_4)^{2-}$ in water (from Na_2SO_4) ARISTAR® standard for ion chromatography	478, 485	100 ml	458062D
Sulphate standard solution, 1,000 mg/l $(SO_4)^{2-}$ in water (from Na_2SO_4) ARISTAR® standard for ion chromatography	478, 485	500 ml	458064F

Conductivity standard solutions

A complete range of certified control standards with values ranging from 20 to 100 000 µS to meet all the requirements for electrochemical analysis.

- Accurate to ±1%
- Traceable to NIST, meeting Eur.Ph. and USP requirements
- Tested using INAB accredited test methods to ISO 17025

Standard values (25 °C)

Used for determining cell constant - see recommendations of instrument manufacturer for the relevant cell design.

Premium values (25 °C)

These standards are for verifying that the measuring system (instrument, probe and operator) can accurately detect sample values in the area of interest (e.g. 20 µS/cm for pharmaceutical water, or 100 000 µS/cm for environmental samples).

- Stable aqueous-based 20 µS conductivity standard

Description	Pk	Cat. No.	Pack type
Standard values			
Conductivity standard 84 µS/cm (25 °C)	100 ml	84131.180	Plastic bottle
Conductivity standard 84 µS/cm (25 °C)	500 ml	84131.260	Plastic bottle
Conductivity standard 147 µS/cm (25 °C)	100 ml	84132.180	Plastic bottle
Conductivity standard 147 µS/cm (25 °C)	500 ml	84132.260	Plastic bottle
Conductivity standard 1413 µS/cm (25 °C)	100 ml	84135.180	Plastic bottle
Conductivity standard 1413 µS/cm (25 °C)	500 ml	84135.260	Plastic bottle
Conductivity standard 1413 µS/cm (25 °C)	1 l	84135.290	Plastic bottle
Conductivity standard 12880 µS/cm (25 °C)	100 ml	84136.180	Plastic bottle
Conductivity standard 12880 µS/cm (25 °C)	500 ml	84136.260	Plastic bottle
Conductivity standard 12880 µS/cm (25 °C)	1 l	84136.290	Plastic bottle
Premium values			
Premium conductivity standard 10 µS/cm	500 ml	84137.260	Plastic bottle
Premium conductivity standard 20 µS/cm	500 ml	84140.260	Plastic bottle
Premium conductivity standard 50 µS/cm	500 ml	84143.260	Plastic bottle
Premium conductivity standard 100 µS/cm	500 ml	84139.260	Plastic bottle
Premium conductivity standard 200 µS/cm	500 ml	84145.260	Plastic bottle
Premium conductivity standard 500 µS/cm	500 ml	84138.260	Plastic bottle
Premium conductivity standard 1000 µS/cm	500 ml	84141.260	Plastic bottle
Premium conductivity standard 10000 µS/cm	500 ml	84146.260	Plastic bottle
Premium conductivity standard 50000 µS/cm	500 ml	84142.260	Plastic bottle
Premium conductivity standard 100000 µS/cm	500 ml	84144.260	Plastic bottle

Standards for determination of hydrocarbon oil index

- Designed for analysis of water and ground samples, according to the ISO 9377-2 norm
- Delivered with certificate of analysis, reference and batch number of source materials
- Produced in compliance with ISO 9001/2000 norm
- Packed in 1.5 and 4.5 ml Certan® bottles or 1 and 10 ml glass ampoules

001 = 1 x 1.5 ml
003 = 3 x 1.5 ml
002 = 1 x 4.5 ml
004 = 3 x 4.5 ml
005 = 5 x 1 ml
010 = 10 x 1 ml
011 = 10 ml
030 = 3 x 10 ml

Description	Page	Pk	Cat. No.
Extraction solvent stock solution	223, 480	1 KIT	87508.001
Extraction solvent stock solution	223, 480	1 KIT	87508.002
Extraction solvent stock solution	223, 480	1 KIT	87508.003
Extraction solvent stock solution	223, 480	1 KIT	87508.004
Extraction solvent stock solution	223, 480	1 KIT	87501.005
Extraction solvent stock solution	223, 480	10 Ampoules	87501.010
Extraction solvent stock solution	223, 480	1 KIT	87501.011
Extraction solvent stock solution	223, 480	1 KIT	87501.030
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87500.005
Standard mixture of 4 n-alkanes	223, 480	10 Ampoules	87500.010
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87500.011
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87500.030
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87506.001
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87506.002
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87506.003
Standard mixture of 4 n-alkanes	223, 480	1 KIT	87506.004
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87505.001
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87505.002
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87505.003
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87505.004
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87499.005
Standard mixture of 16 n-alkanes	223, 480	10 Ampoules	87499.010
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87499.011
Standard mixture of 16 n-alkanes	223, 480	1 KIT	87499.030
Standard mixture of mineral oil stock	223, 480	1 Bottle	87502.001
Standard mixture of mineral oil stock	223, 480	1 Bottle	87502.002
Standard mixture of mineral oil stock	223, 480	1 KIT	87502.003
Standard mixture of mineral oil stock	223, 480	1 KIT	87502.004
Standard mixture of mineral oil stock	223, 480	5 Ampoules	87495.005
Standard mixture of mineral oil stock	223, 480	1 KIT	87495.010
Standard mixture of mineral oil stock	223, 480	1 Ampoule	87495.011
Standard mixture of mineral oil stock	223, 480	1 KIT	87495.030
Quality control standard mixture of mineral oils	224, 480	1 KIT	87503.001
Quality control standard mixture of mineral oils	224, 480	1 KIT	87503.002
Quality control standard mixture of mineral oils	224, 480	1 KIT	87503.003
Quality control standard mixture of mineral oils	224, 480	1 KIT	87503.004
Quality control standard mixture of mineral oils	224, 480	1 KIT	87497.005
Quality control standard mixture of mineral oils	224, 480	10 Ampoules	87497.010
Quality control standard mixture of mineral oils	224, 480	1 KIT	87497.011
Quality control standard mixture of mineral oils	224, 480	1 KIT	87497.030
Cartridge quality control standard mixture	224, 480	1 KIT	87504.001
Cartridge quality control standard mixture	224, 480	1 KIT	87504.002
Cartridge quality control standard mixture	224, 480	1 KIT	87504.003
Cartridge quality control standard mixture	224, 480	1 KIT	87504.004
Cartridge quality control standard mixture	224, 480	1 KIT	87498.005
Cartridge quality control standard mixture	224, 480	1 KIT	87498.010
Cartridge quality control standard mixture	224, 480	1 KIT	87498.011
Cartridge quality control standard mixture	224, 480	1 KIT	87498.030
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87507.001
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87507.002
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87507.003
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87507.004
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87496.005
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87496.010
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87496.011
Stearyl stearate 2,000 µg/ml in hexane	224, 480	1 KIT	87496.030

Stannous chloride

See Tin (II) chloride p.506

Stannous chloride dihydrate

See Tin (II) chloride dihydrate p.507

Starch, soluble

Amylodextrin , Vitex® iodine indicator

CAS 9005-84-9
EINECS: 232-686-4

$(C_6H_{10}O_5)_n$
M.W. 162.14 g/mol
Storage Temperature: Ambient temperature

Starch, soluble AnalaR NORMAPUR® analytical reagent

Appearance ..... White fine powder
Appearance of solution (2 %; water) ..... Passes test
Dextrin ..... Passes test
Identification ..... Passes test
Sensitivity to iodine ..... Passes test
pH (20 °C; 2 %) ..... 6.5 to 7.5
Ignition residue (SO_4) ..... Max. 0.4 %
Loss on drying (105 °C) ..... Max. 10 %
Reducing substances (as $C_6H_{12}O_6$) ..... Max. 1.0 %

Cat. No.	Pk	Pack type
21153.135	25 g	Plastic bottle for solids
21153.181	100 g	Plastic bottle for solids
21153.237	250 g	Plastic bottle for solids

Starch soluble Iotect® iodine indicator AnalaR NORMAPUR® analytical reagent

Iodine indicator in iodometry

Melting point ..... 129 to 133 °C
Suited for iodine reagent ..... Passes test
Conforms to BDH 20054 ..... Passes test

Cat. No.	Pk	Pack type
28610.187	100 g	Plastic bottle for solids
28610.234	250 g	Plastic bottle for solids
28610.291	1 kg	Plastic bottle for solids

Starch, soluble from potatoes

CAS 9005-84-9
EINECS: 232-686-4

$(C_6H_{10}O_5)_n$
M.W. 162.14 g/mol
Storage Temperature: Ambient temperature

Starch, soluble from potatoes TECHNICAL

Solubility ..... Passes test
Sensitivity ..... Passes test

Cat. No.	Pk	Pack type
21152.234	250 g	Plastic bottle for solids
21152.291	1 kg	Plastic bottle for solids

Starch from wheat

CAS 9005-25-8
EINECS: 232-679-6

$(C_6H_{10}O_5)_n$
M.W. 162.14 g/mol
Density: 1.5 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Starch from wheat, powder TECHNICAL

IR Spectrum ..... Passes test

Cat. No.	Pk	Pack type
21146.290	1 kg	Plastic bottle for solids

Starch 1% aqueous solution

CAS 9005-25-8
EINECS: 232-679-6

$(C_6H_{10}O_5)_n$
M.W. 162.14 g/mol
Storage Temperature: Ambient temperature

Starch 1% aqueous solution Reag. Ph. Eur. 1085103

Stabilised with mercury (II) iodide 0.01 %

Cat. No.	Pk	Pack type
85964.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Starch 0.5% aqueous solution TECHNICAL

Stabilised

Test ..... Passes test

Cat. No.	Pk	Pack type
4729.0500	500 ml	Plastic bottle

Starch potassium iodate paper

KIO_3

Starch potassium iodate paper Reag. Ph. Eur. 1085101

Cat. No.	Pk	Pack type
87942.150	50 Tests	Plastic bottle for solids

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Starch potassium iodide paper

KI

Starch potassium iodide paper Reag. Ph. Eur. 1085106

Cat. No.	Pk	Pack type
87943.150	50 Tests	Plastic bottle for solids

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Stearic acid calcium salt

See Calcium stearate p.95

Stearic acid zinc salt

See Zinc stearate p.552

Stearic acid

Octadecanoic acid , Octadecylic acid

Warning
H315
P280 P302+P352

CAS 57-11-4
EINECS: 200-313-4
Flash Pt: 196 °C (closed cup)

$C_{18}H_{36}O_2$
M.W. 284.48 g/mol
Density: 0.94 g/cm³ (20 °C)
Boiling Pt: 361 °C (1013 hPa)
Melting Pt: 67 °C
Storage Temperature: 2 - 8°C

Stearic acid GPR RECTAPUR®

Assay ..... Min. 97 %
IR Spectrum ..... Passes test
Melting point ..... 68 to 70 °C

Cat. No.	Pk	Pack type
30267HG	5 kg	Bucket (Plastic)

Stearic acid, powder TECHNICAL

Stearic and palmitic acid ..... Min. 90 %

Cat. No.	Pk	Pack type
20666.290	1 kg	Plastic bottle for solids
20666.460	25 kg	Bucket (Plastic)

Stick on (Cell adhesive)

Storage Temperature: Ambient temperature

NEW Stick on (Cell adhesive) Q PATH® for microscopy

Glue for improving adherence of histologicals sections to slides. Alternative to Abumin-Glycerol.

IVD

Cat. No.	Pk	Pack type
11047600.	500 ml	Plastic bottle

IVD registered. Instructions for use on vwr.com- just search for the product.

Stoddard solvent 150-200°C

See White Spirit 150-200°C p.543

Streptavidin

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 9013-20-1
Storage Temperature: -20°C

VWR CHEMICALS Streptavidin (from Streptomyces avidinii) for biotechnology

A 60 kDa tetrameric protein that exhibits high binding affinity for biotin. Able to bind one molecule of biotin with each subunit, streptavidin is useful in affinity chromatography, ELISA, immunohistochemistry, and Western Blotting.

Activity ..... 17 U/mg protein
DNase ..... NONE
Electrophoresis (One Band) ..... PASS
Protease ..... NONE
Reassay Date ..... REPORT
RNase ..... NONE

Cat. No.	Pk	Pack type
E497-1MG	1 mg	Plastic tube
E497-5MG	5 mg	Plastic tube

Streptomycin sulphate

Warning
H361 H302
P201 P281 P308+P313

CAS 3810-74-0
EINECS: 223-286-0
UN: 2811
ADR 6.1,III

$C_{42}H_{84}N_{14}O_{36}S_3$
M.W. 1457.4 g/mol
Melting Pt: 250 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS Streptomycin sulphate, ultrapure

30 µg/ml, binds to the 30S subunit of bacterial ribosome.

Cat. No.	Pk	Pack type
0382-EU-50G	50 g	Plastic bottle for solids
0382-EU-100G	100 g	Plastic bottle for solids

Streptozocin

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 18883-66-4
EINECS: 242-646-8

$C_8H_{15}N_3O_7$
Storage Temperature: -20°C

VWR CHEMICALS Streptozocin, ultrapure

Selection agent, mutagenic agent, and diabetes inducer.

Carbon ..... 35.9 - 36.6 %
Heavy Metals ..... 20 ppm
Identification (IR) ..... PASS
Identification (UV) ..... PASS
Loss on Drying ..... 1.0 %
Melting Point (with decomposition) ..... 121 °C
Nitrogen ..... 15.6 - 16.2 %
Purity (HPLC) ..... REPORT
Residue on ignition ..... 0.1 %
Solubility (1 %, Water) ..... PASS
Specific Rotation ..... +39 °

Cat. No.	Pk	Pack type
N407-1G	1 g	Glass bottle

Strontium standard solution, 10,000 mg/l Sr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-24-6
EINECS: 231-133-4
UN: 3264
ADR 8,III

Sr
M.W. 87.62 g/mol
Storage Temperature: Ambient temperature

Strontium standard solution, 10,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP

$Sr(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456072U	100 ml	Plastic bottle
456074W	500 ml	Plastic bottle

Supplied with certificate of analysis.

Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP-MS

Sr in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456912M	100 ml	Plastic bottle

Supplied with certificate of analysis.

Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid (from $Sr(NO_3)_2$) ARISTAR® standard for ICP

$Sr(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456062S	100 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Strontium standard solution, 1,000 mg/l Sr in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86713.180	100 ml	Plastic bottle
86713.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Strontium chloride hexahydrate

Warning
H302
P301+P312

CAS 10025-70-4
EINECS: 233-971-6

$SrCl_2 \cdot 6H_2O$
M.W. 266.62 g/mol
Density: 1.93 g/cm³ (20 °C)
Boiling Pt: 100 °C (1013 hPa)
Melting Pt: 61 °C
Storage Temperature: Ambient temperature

Strontium chloride hexahydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	pH (20°C; 5 %)	5.0 to 7.0
Insolubility in water	Max. 50 ppm	NO_3 (Nitrate)	Max. 20 ppm
SO_4 (Sulphate)	Max. 25 ppm	Ba (Barium)	Max. 50 ppm
Ca (Calcium)	Max. 0.05 %	Cu (Copper)	Max. 2 ppm
Fe (Iron)	Max. 5 ppm	K (Potassium)	Max. 100 ppm
Na (Sodium)	Max. 100 ppm	Pb (Lead)	Max. 2 ppm
Zn (Zinc)	Max. 2 ppm		

Cat. No.	Pk	Pack type
28321.268	500 g	Plastic bottle for solids

Succinic acid

1,4-Butanedioic acid

Warning
H319
P280 P305+P351+P338

CAS 110-15-6
EINECS: 203-740-4
UN: 3261
ADR 8,III
Flash Pt: 206 °C

$HOOCCH_2CH_2COOH$
M.W. 118.09 g/mol
Density: 1.56 g/cm³ (20 °C)
Boiling Pt: 235 °C (1013 hPa)
Melting Pt: 182 °C
Storage Temperature: Ambient temperature

Succinic acid AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Melting point	183 to 187 °C
Heavy metals (as Pb)	Max. 10 ppm	Ignition residue (SO_4)	Max. 0.02 %
Insolubility in water	Max. 50 ppm	Water	Max. 0.5 %
Cl (Chloride)	Max. 5 ppm	NH_4 (Ammonium)	Max. 10 ppm
SO_4 (Sulphate)	Max. 50 ppm	Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
20668.230	250 g	Plastic bottle for solids

VWR CHEMICALS Succinic acid, high purity

Heavy Metals (as Pb)	0.001 %
Melting Point	185 - 190 °C
Purity	99.0 %
Residue on ignition	0.025 %

Cat. No.	Pk	Pack type
0165-500G	500 g	Plastic bottle for solids
0165-2.5KG	2,5 kg	Plastic bottle for solids

D(+)-Sucrose

D(+)-Saccharose

CAS 57-50-1
EINECS: 200-334-9

$C_{12}H_{22}O_{11}$
M.W. 342.3 g/mol
Density: 1.29 g/cm³ (20 °C)
Melting Pt: 169 to 170 °C
Storage Temperature: Ambient temperature

D(+)-Sucrose AnalaR NORMAPUR® analytical reagent

Acidity	Max. 0.005 meq/g	Specific optical rotation (26 %; water)	66.4 to 66.8 °
Glucose	Max. 0.05 %	Heavy metals (as Pb)	Max. 10 ppm
Ignition residue (SO_4)	Max. 80 ppm	Insolubility in water	Max. 30 ppm
Loss on drying (100°C)	Max. 0.05 %	Reducing sugars (calculated as $C_6H_{12}O_6$)	Max. 0.1 %
Cl (Chloride)	Max. 5 ppm	N (Nitrogen)	Max. 20 ppm
SO_3 (as SO_2)	Max. 15 ppm	SO_4 (Sulphate)	Max. 20 ppm
Ba (Barium)	Max. 0.02 %	Ca (Calcium)	Max. 10 ppm
Cd (Cadmium)	Max. 0.05 ppm	Cu (Copper)	Max. 0.1 ppm
Fe (Iron)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.1 ppm
Pb (Lead)	Max. 0.5 ppm	Zn (Zinc)	Max. 0.5 ppm

Cat. No.	Pk	Pack type
27480.260	500 g	Plastic bottle for solids
27480.294	1 kg	Plastic bottle for solids
27480.360	5 kg	Plastic bottle for solids

D(+)-Sucrose Ph. Eur.

Appearance	Colourless crystals
Identification A	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Conductivity (20°C; 31,3 %)	Max. 35 µS/cm
Specific optical rotation (26 %; water)	66.3 to 67.0 °
Colour value	Max. 45
Reducing sugars	Passes test
SO_3 (as SO_2)	Max. 10 ppm
Loss on drying (105°C)	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
27483.294	1 kg	Plastic bottle for solids
27483.363	5 kg	Plastic bottle for solids
27483.465	25 kg	Bucket (Plastic)

NOT FOR PARENTERAL USE

D(+)-Sucrose GPR RECTAPUR®

Specific optical rotation (2 %; water)	66 to 67 °
Heavy metals (as Pb)	Max. 50 ppm
Ignition residue (SO_4)	Max. 0.2 %

Cat. No.	Pk	Pack type
27478.296	1 kg	Plastic bottle for solids
27478.365	5 kg	Plastic bottle for solids
27478.467	25 kg	Bucket (Plastic)

VWR CHEMICALS D(+)-Sucrose, ultrapure

Common reagent in routine nucleic acid procedures and electrophoresis loading dyes.

Chloride	< 0.005 %
DNase	NONE
Glucose	0.1 %
Heavy metals (as Pb)	< 0.0005 %
Identification (IR)	PASS
Insolubles	0.005 %
Invert sugar	0.1 %
Iron	< 0.0005 %
Loss on drying	0.03 %
Protease	NONE
Purity	99.9 %
RNase	NONE
Solubility (10 %, Water)	PASS
Specific Rotation	+66.3 to +66.8 °
Sulphate	< 0.005 %

Cat. No.	Pk	Pack type
0335-500G	500 g	Plastic bottle for solids
0335-1KG	1 kg	Plastic bottle for solids
0335-2.5KG	2,5 kg	Bucket (Plastic)
0335-5KG	5 kg	Bucket (Plastic)
0335-10KG	10 kg	Bucket (Plastic)
0335-12KG	12 kg	Bucket (Plastic)
0335-50KG	50 kg	Plastic drum

VWR CHEMICALS D(+)-Sucrose, proteomics grade

Chloride	< 0.005 %
DNase	NONE
Glucose	0.1 %
Heavy metals (as Pb)	<0.0005 %
Identification (IR)	PASS
Insolubles	0.005 %
Invert sugar	0.1 %
Iron	< 0.0005 %
Loss on drying	0.03 %
Protease	NONE
Purity	99.9 %
RNase	NONE
Solubility (10 %, Water)	PASS
Specific Rotation	+66.3 to +66.8 °
Sulphate	< 0.005 %

Cat. No.	Pk	Pack type
M117-500G	500 g	Plastic bottle for solids
M117-1KG	1 kg	Plastic bottle for solids

D(+)-Sucrose Electran® Molecular biology grade

Identity (IR-spectrum)	conforms
Spec. rotation (.a. 20/D; 26 % Water)	+66.3 to +67.0 °
Fe (Iron)	Max 0.1 ppm
Pb (Lead)	Max 0.5 ppm
DNases (Exo- and endonucleases)	not detected
RNases	not detected
Proteases	not detected

Cat. No.	Pk	Pack type
443815S	1 kg	Plastic bottle
443816T	5 kg	Plastic bottle

Sucrose 20%

VWR CHEMICALS Sucrose 20% for biotechnology, sterile

Common reagent in routine nucleic acid procedures and electrophoresis loading dyes.

Clarity	PASS
Sterility	PASS

Cat. No.	Pk	Pack type
E543-100ML	100 ml	Plastic bottle

VWR CHEMICALS Sucrose 20%, proteomics grade, sterile

Clarity	PASS
DNase	NONE
Protease	NONE
RNase	NONE
Sterility	PASS

Cat. No.	Pk	Pack type
M118-100ML	100 ml	Plastic bottle

Sugars (Carbohydrates)

Sulphamidic acid

Sulphanilamide

CAS 63-74-1
EINECS: 200-563-4

$H_2NC_6H_4SO_2NH_2$
M.W. 172.21 g/mol
Density: 1.46 g/cm³ (20 °C)
Boiling Pt: 401 °C (1013 hPa)
Melting Pt: 163 to 167 °C
Storage Temperature: Ambient temperature

Sulphanilamide AnalaR NORMAPUR® analytical reagent

Assay (calculated on anhydrous)	Min. 99 %
Insolubility in alkaline medium	Passes test
Heavy metals (as Pb)	Max. 20 ppm
Loss on drying (105°C)	Max. 0.5 %
SO_4 (Sulphate)	Max. 0.02 %
Insolubility in acid medium	Passes test
Melting point	163 to 166 °C
Ignition residue (SO_4)	Max. 0.1 %
Cl (Chloride)	Max. 100 ppm

Cat. No.	Pk	Pack type
21159.181	100 g	Plastic bottle for solids

Sulphanilamide TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
21156.237	250 g	Plastic bottle for solids

Sulphanilic acid

4-Aminobenzenesulphonic acid , Aniline-4-sulphonic acid

Warning
H319 H315 H317
P280 P302+P352 P305+P351+P338

CAS 121-57-3
Index 612-014-00-X
EINECS: 204-482-5

4-$(H_2N)C_6H_4SO_3H$
M.W. 173.19 g/mol
Density: 1.485 g/cm³ (25 °C)
Boiling Pt: 363 °C (1013 hPa)
Melting Pt: 279 °C
Storage Temperature: Ambient temperature

Sulphanilic acid AnalaR NORMAPUR® analytical reagent

Assay	98.0 to 102.0 %
Insolubility in Na_2CO_3 solution	Max. 0.02 %
Cl (Chloride)	Max. 20 ppm
SO_4 (Sulphate)	Max. 100 ppm
Ignition residue (SO_4)	Max. 0.01 %
Water	Max. 0.7 %
NO_2 (Nitrite)	Max. 0.5 ppm

Cat. No.	Pk	Pack type
20674.231	250 g	Plastic bottle for solids

Sulphanilic acid GPR RECTAPUR®

Assay	Min. 98 %
Ignition residue (SO_4)	Max. 0.1 %
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 0.05 %

Cat. No.	Pk	Pack type
20673.294	1 kg	Plastic bottle for solids

Sulphanilic acid 0.02 mol/l in acetic acid 25%

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 121-57-3
EINECS: 204-482-5
UN: 2790
ADR 8,III

4-$(H_2N)C_6H_4SO_3H$
M.W. 173.19 g/mol

Sulphanilic acid 0.02 mol/l in acetic acid 25% Reag. Ph. Eur. 1086203

Cat. No.	Pk	Pack type
87945.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sulphanilic acid 0.02 mol/l in acetic acid 6%

CAS 121-57-3
EINECS: 204-482-5

4-$(H_2N)C_6H_4SO_3H$
M.W. 173.19 g/mol

Sulphanilic acid 0.02 mol/l in acetic acid 6% Reag. Ph. Eur. 1086201

Cat. No.	Pk	Pack type
87944.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sulphate standard solution, 1,000 mg/l sulphate in water

Density: 0.998 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sulphate standard solution, 1,000 mg/l $(SO_4)^{2-}$ in water (from Na_2SO_4) ARISTAR® standard for ion chromatography

(SO_4^{2-} in H_2O)

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
458062D	100 ml	Plastic bottle
458064F	500 ml	Plastic bottle

NEW Standard solution (1000 ppm SO_4) for the preparation of sulfate standard solution (10 ppm SO_4) R1 Reag.Ph.Eur. 5002801

Cat. No.	Pk	Pack type
88091.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

NEW Standard solution (1000 ppm SO_4) for the preparation of sulfate standard solution (100 ppm SO_4) Reag.Ph.Eur. 5002802

Cat. No.	Pk	Pack type
88090.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

5-Sulphosalicylic acid dihydrate

Warning
H302 H319 H335 H315
P280 P302+P352 P305+P351+P338 P309+P311

CAS 5965-83-3
EINECS: 202-555-6
UN: 2585
ADR 8,III
Flash Pt: 150 °C

$HO_3SC_6H_3$-2-$(OH)CO_2H{\cdot}2H_2O$
M.W. 254.22 g/mol
Density: 1.695 g/cm³ (20 °C)
Melting Pt: 224 °C
Storage Temperature: Ambient temperature

5-Sulphosalicylic acid dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Free salicylic acid	Max. 0.04 %
Heavy metals (as Pb)	Max. 10 ppm	Ignition residue (SO_4)	Max. 0.1 %
Insolubility in NH_3 4 N	Max. 0.03 %	Insolubility in ethanol 96 % vol	Max. 0.1 %
Insolubility in water	Max. 50 ppm	Cl (Chloride)	Max. 10 ppm
Fe (Iron)	Max. 10 ppm		

Cat. No.	Pk	Pack type
20678.187	100 g	Plastic bottle for solids
20678.267	500 g	Plastic bottle for solids
20678.291	1 kg	Plastic bottle for solids

Sulfobetaine-10 (SB-10, N-Decyl-N,N-dimethyl-3-ammonio-1-propanesulphonate)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 15163-36-7

$C_{15}H_{33}NO_3S$
Storage Temperature: Ambient temperature

VWR CHEMICALS Sulfobetaine-10, SB-10 (N-Decyl-N,N-dimethyl-3-ammonio-1-propanesulphonate) for biotechnology

Zwitterionic detergent.

Identification	PASS
Moisture (KF)	2 %
Purity	99.0 %
Solubility (10%, Water)	PASS

Cat. No.	Pk	Pack type
J548-10G	10 g	Glass bottle

Sulphur

Warning
H315
P280 P302+P352

CAS 7704-34-9
Index 016-094-00-1
EINECS: 231-722-6
UN: 1350
ADR 4.1,III
Flash Pt: 168 °C

S
M.W. 32.07 g/mol
Density: 2.36 g/cm³ (20 °C)
Boiling Pt: 445 °C (1013 hPa)
Melting Pt: 113 to 119 °C
Storage Temperature: Ambient temperature

Sulphur AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Acidity or alkalinity	Max. 0.002 meq/g
Ignition residue	Max. 0.04 %	Cl (Chloride)	Max. 50 ppm
S (Sulphide)	Max. 2 ppm	SO_4 (Sulphate)	Max. 50 ppm
As (Arsenic)	Max. 5 ppm		

Cat. No.	Pk	Pack type
28260.234	250 g	Plastic bottle for solids

Sulphur, flower TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
28256.296	1 kg	Plastic bottle for solids

Sulphur standard solution, 10,000 mg/l S in water

CAS 7704-34-9
EINECS: 231-722-6

S
M.W. 32.07 g/mol
Density: 1.018 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sulphur standard solution, 10,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP

$(NH_4)_2SO_4$ in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456092B	100 ml	Plastic bottle
456094D	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sulphur standard solution, 1,000 mg/l S in water (from S) ARISTAR® standard for ICP-MS

S in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456922X	100 ml	Plastic bottle

Supplied with certificate of analysis.

Sulphur standard solution, 1,000 mg/l S in water (from $(NH_4)_2SO_4$) ARISTAR® standard for ICP

$(NH_4)_2SO_4$ in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456082W	100 ml	Plastic bottle
456084B	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Sulphur standard solution, 1,000 mg/l S in water AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86706.180	100 ml	Plastic bottle
86706.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Sulphuric acid (≥ 95%)

Danger
H314 H290
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 1830
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.84 g/cm³ (20 °C)
Boiling Pt: ~ 335 °C (1013 hPa)
Melting Pt: 3 °C
Storage Temperature: Ambient temperature

Sulphuric acid 98% AnalaR NORMAPUR® analytical reagent

Assay	Min. 98.0 %	Colouration	Max. 10 HU
Residue on ignition	Max. 0.002 %	Substances reducing permanganate $KMnO_4$ (O)	Max. 0.0001 %
Ammonium (NH_4^+)	Max. 0.0002 %	Nitrate (NO_3^-)	Max. 0.00002 %
Chloride (Cl)	Max. 0.00002 %	Al (Aluminium)	Max. 0.00001 %
As (Arsenic)	Max. 0.000005 %	Ba (Barium)	Max. 0.000005 %
Ca (Calcium)	Max. 0.0001 %	Cd (Cadmium)	Max. 0.000005 %
Co (Cobalt)	Max. 0.000002 %	Cr (Chromium)	Max. 0.00001 %
Cu (Copper)	Max. 0.000002 %	Fe (Iron)	Max. 0.0001 %
K (Potassium)	Max. 0.00005 %	Mg (Magnesium)	Max. 0.00005 %
Mn (Manganese)	Max. 0.000002 %	Mo (Molybdenum)	Max. 0.000005 %
Na (Sodium)	Max. 0.0005 %	Ni (Nickel)	Max. 0.000005 %
Pb (Lead)	Max. 0.000005 %	Se (Selenium)	Max. 0.0001 %
Sr (Strontium)	Max. 0.000002 %	Zn (Zinc)	Max. 0.00005 %

Cat. No.	Pk	Pack type
102765G	1 l	Glass bottle
102766H	2,5 l	Glass bottle

Sulphuric acid 96% Ph. Eur.

Assay	95.0 to 100.5 %
Appearance	Clear viscous liquid
Identification A	Passes test
Identification B	Passes test
Appearance of solution	Passes test
Cl (Chloride)	Max. 50 ppm
NO_3 (Nitrate)	Passes test
As (Arsenic)	Max. 1 ppm
Fe (Iron)	Max. 25 ppm
Heavy metals (as Pb)	Max. 5 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
85508.290	1 l	Glass bottle
85508.320	2,5 l	Glass bottle

Sulphuric acid 96% VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
51151507.	2,5 l	Plastic bottle
57384943.	340 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

Sulphuric acid 95% ARISTAR® for trace analysis

Assay (acidimetric)	Min. 95.0 %
Chloride (Cl)	Max. 0.1 ppm
Nitrate (NO_3)	Max. 0.1 ppm
Phosphate (PO_4)	Max. 0.05 ppm
Al (Aluminium)	Max. 0.05 ppm
As (Arsenic)	Max. 0.005 ppm
B (Boron)	Max. 0.05 ppm
Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.1 ppm
Cd (Cadmium)	Max. 0.001 ppm
Co (Cobalt)	Max. 0.005 ppm
Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.05 ppm
Hg (Mercury)	Max. 0.001 ppm
K (Potassium)	Max. 0.05 ppm
Mg (Magnesium)	Max. 0.03 ppm
Mn (Manganese)	Max. 0.005 ppm
Na (Sodium)	Max. 0.3 ppm
NH_4 (Ammonium)	Max. 1.0 ppm
Ni (Nickel)	Max. 0.005 ppm
Pb (Lead)	Max. 0.005 ppm
Se (Selenic)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.005 ppm
Zn (Zinc)	Max. 0.02 ppm
Oxygen absorbing components	Max. 1 ppm
Non volatile matter	Max. 10 ppm

Cat. No.	Pk	Pack type
450061Q	500 ml	Glass bottle SAFEBREAK

Sulphuric acid 95% AnalaR NORMAPUR® analytical reagent

Assay	95.0 to 97.0 %	Colouration	Max. 10 APHA
Ignition residue	Max. 5 ppm	Substances reducing $KMnO_4$ (as SO_2)	Max. 2 ppm
Cl (Chloride)	Max. 0.2 ppm	NH_4 (Ammonium)	Max. 2 ppm
$NO_3 + NO_2$ (as NO_3)	Max. 0.2 ppm	PO_4 (Phosphate)	Max. 0.5 ppm
Ag (Silver)	Max. 0.02 ppm	Al (Aluminium)	Max. 0.02 ppm
As (Arsenic)	Max. 0.005 ppm	Ba (Barium)	Max. 0.02 ppm
Be (Beryllium)	Max. 0.01 ppm	Bi (Bismuth)	Max. 0.01 ppm
Ca (Calcium)	Max. 0.2 ppm	Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.01 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.2 ppm
Ge (Germanium)	Max. 0.02 ppm	K (Potassium)	Max. 0.05 ppm
Li (Lithium)	Max. 0.01 ppm	Mg (Magnesium)	Max. 0.03 ppm
Mn (Manganese)	Max. 0.01 ppm	Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.02 ppm	Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.02 ppm	Tl (Thallium)	Max. 0.02 ppm
V (Vanadium)	Max. 0.01 ppm	Zn (Zinc)	Max. 0.02 ppm
Zr (Zirconium)	Max. 0.02 ppm		

Cat. No.	Pk	Pack type
20700.265	500 ml	Glass bottle
20700.290	1 l	Plastic bottle
20700.243	1 l	Glass bottle SAFEBREAK
20700.298	1 l	Glass bottle
20700.320	2,5 l	Plastic bottle
20700.323	2,5 l	Glass bottle SAFEBREAK
20700.420	2,5 l	Glass bottle

Sulphuric acid 95% AnalaR NORMAPUR® analytical reagent, for trace analysis of cadmium, mercury and lead

Assay	Min. 95.0 %	Colouration	Max. 10 APHA
Ignition residue	Max. 5 ppm	Substances reducing $KMnO_4$ (as SO_2)	Max. 5 ppm
Cl (Chloride)	Max. 0.2 ppm	NH_4 (Ammonium)	Max. 2 ppm
$NO_3 + NO_2$ (as NO_3)	Max. 0.1 ppm	As (Arsenic)	Max. 0.01 ppm
Cd (Cadmium)	Max. 0.005 ppm	Cu (Copper)	Max. 0.05 ppm
Fe (Iron)	Max. 0.2 ppm	Hg (Mercury)	Max. 0.005 ppm
Ni (Nickel)	Max. 0.05 ppm	Pb (Lead)	Max. 0.005 ppm
Zn (Zinc)	Max. 0.05 ppm		

Cat. No.	Pk	Pack type
20704.292	1 l	Glass bottle
20704.320	2,5 l	Glass bottle

Sulphuric acid 95% GPR RECTAPUR®

Assay	95 to 97 %
Density (20/4)	1.800 to 1.940
Heavy metals (as Pb)	Max. 10 ppm
Ignition residue	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
20690.247	1 l	Glass bottle SAFEBREAK
20690.293	1 l	Glass bottle
20690.327	2,5 l	Glass bottle SAFEBREAK
20690.330	2,5 l	Plastic bottle
20690.442	20 l	Plastic drum
20690.511	50 l	Plastic drum

Sulphuric acid 95% TECHNICAL

Assay	Min. 95 %

Cat. No.	Pk	Pack type
20685.295	1 l	Glass bottle
20685.330	2,5 l	Plastic bottle
20685.360	5 l	Plastic container
20685.513	50 l	Plastic drum

Sulphuric acid (90 - < 95%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 1830
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.82 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sulphuric acid 93% NORMATOM® for trace metal analysis

Assay	93 to 98 %	Colouration	Max. 10 APHA
Cl (Chloride)	Max. 0.7 ppm	Total P (Phosphorus)	Max. 0.1 ppm
NO_3 (Nitrate)	Max. 0.2 ppm	Substances reducing $KMnO_4$	Max. 20 ppm
Ag (Silver)	Max. 1 ppb	Al (Aluminium)	Max. 1 ppb
As (Arsenic)	Max. 0.5 ppb	Au (Gold)	Max. 0.5 ppb
Ba (Barium)	Max. 1 ppb	Be (Beryllium)	Max. 0.1 ppb
Bi (Bismuth)	Max. 0.1 ppb	Ca (Calcium)	Max. 1 ppb
Cd (Cadmium)	Max. 0.5 ppb	Ce (Cerium)	Max. 0.1 ppb
Co (Cobalt)	Max. 0.5 ppb	Cr (Chromium)	Max. 0.5 ppb
Cs (Cesium)	Max. 0.1 ppb	Cu (Copper)	Max. 0.5 ppb
Dy (Dysprosium)	Max. 0.1 ppb	Er (Erbium)	Max. 0.1 ppb
Eu (Europium)	Max. 0.1 ppb	Fe (Iron)	Max. 1 ppb
Ga (Gallium)	Max. 0.1 ppb	Gd (Gadolinium)	Max. 0.1 ppb
Ge (Germanium)	Max. 1 ppb	Hf (Hafnium)	Max. 0.1 ppb
Hg (Mercury)	Max. 0.1 ppb	Ho (Holmium)	Max. 0.1 ppb
In (Indium)	Max. 0.1 ppb	K (Potassium)	Max. 1 ppb
La (Lanthanum)	Max. 0.1 ppb	Li (Lithium)	Max. 0.5 ppb
Lu (Lutetium)	Max. 0.1 ppb	Mg (Magnesium)	Max. 1 ppb
Mn (Manganese)	Max. 0.5 ppb	Mo (Molybdenum)	Max. 0.5 ppb
Na (Sodium)	Max. 1 ppb	Nb (Niobium)	Max. 0.1 ppb
Nd (Neodymium)	Max. 0.1 ppb	Ni (Nickel)	Max. 0.5 ppb
Pb (Lead)	Max. 0.1 ppb	Pr (Praseodymium)	Max. 0.1 ppb
Rb (Rubidium)	Max 0.5 ppb	Rh (Rhodium)	Max. 0.5 ppb
Sb (Antimony)	Max. 1 ppb	Sc (Scandium)	Max. 0.1 ppb
Se (Selenium)	Max. 10 ppb	Sm (Samarium)	Max. 0.1 ppb
Sn (Tin)	Max. 1 ppb	Sr (Strontium)	Max. 0.5 ppb
Tb (Terbium)	Max. 0.1 ppb	Te (Tellurium)	Max. 0.1 ppb
Th (Thorium)	Max. 0.1 ppb	Ti (Titanium)	Max. 1 ppb
Tl (Thallium)	Max. 0.1 ppb	Tm (Thulium)	Max. 0.1 ppb
U (Uranium)	Max. 0.1 ppb	V (Vanadium)	Max. 0.5 ppb
W (Tungsten)	Max. 0.5 ppb	Y (Yttrium)	Max. 0.1 ppb
Yb (Ytterbium)	Max. 0.1 ppb	Zn (Zinc)	Max. 1 ppb
Zr (Zirconium)	Max. 0.5 ppb		

Cat. No.	Pk	Pack type
83875.270	500 ml	Plastic bottle
83875.290	1 l	Plastic bottle
83875.330	2,5 l	Plastic bottle

Sulphuric acid 90% for milk analysis

Assay	Min. 90 %
Density (20/4)	1.815 to 1.825

Cat. No.	Pk	Pack type
20695.290	1 l	Glass bottle
20695.324	2,5 l	Glass bottle SAFEBREAK

Sulphuric acid 62% for the determination of fats in cheese according to Gerber

Assay	61.7 to 62.7 %
Density (20/4)	1.517 to 1.527

Cat. No.	Pk	Pack type
84509.290	1 l	Plastic bottle
84509.360	5 l	Plastic bottle

Sulphuric acid 500 ml/l (~65.1%) for determination of dissolved oxygen in water

Assay	49.75 to 50.25
Substances reducing $KMnO_4$	Max. 1 ppm

Cat. No.	Pk	Pack type
160346N	2,5 l	Glass bottle

Sulphuric acid (25 - < 51%)

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.1 to 1.4 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Sulphuric acid 50% TECHNICAL

Assay ..... Min. 50 %

Cat. No.	Pk	Pack type
20696.293	1 l	Plastic bottle

Sulphuric acid 25% GPR RECTAPUR®

Assay ..... 24 to 26 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue ..... Max. 50 ppm
Cl (Chloride) ..... Max. 5 ppm
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
84513.290	1 l	Glass bottle
84513.360	5 l	Plastic bottle
84513.460	25 l	Plastic drum

Sulphuric acid (5 - < 15%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.066 g/cm³ (20 °C)
Boiling Pt: 101 °C (1013 hPa)
Storage Temperature: Ambient temperature

Sulphuric acid 10% AnalaR NORMAPUR® analytical reagent

Assay ..... 10.0 to 11.0 %
Substances reducing $KMnO_4$ (as SO_2) .... Passes test
Cl (Chloride) ..... Max. 50 ppm
As (Arsenic) ..... Max. 3 ppm
Pb (Lead) ..... Max. 5 ppm
Appearance ..... Clear colourless liquid
Heavy metals (as Pb) ..... Max. 20 ppm
NO_3 (Nitrate) ..... Max. 10 ppm
Fe (Iron) ..... Max. 0.02 %
Se (Selenium) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
9755.1000	1 l	Plastic bottle

Sulphuric acid (0.05 - 5 mol) concentrated aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Storage Temperature: Ambient temperature

Sulphuric acid 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.4975 to 0.5025 mol/l

Cat. No.	Pk	Pack type
32053.602	170 ml	Plastic ampoule

Sulphuric acid 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.04975 to 0.05025 mol/l

Cat. No.	Pk	Pack type
32054.605	60 ml	Plastic ampoule

Sulphuric acid (3.01 - < 7.3 mol/l) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Storage Temperature: Ambient temperature

Sulphuric acid 5 mol/l (10 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 4.99 to 5.01 mol/l

Cat. No.	Pk	Pack type
191665V	2,5 l	Glass bottle SAFEBREAK

Sulphuric acid 4 mol/l (8 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard

Titer (20°C; real value 0.2 % accuracy) ..... 3.992 to 4.008 mol/l

Cat. No.	Pk	Pack type
30148.297	1 l	Glass bottle
30148.320	2,5 l	Plastic bottle

Sulphuric acid (1.69 - < 3.01 mol/l) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.146 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sulphuric acid 2.5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 2.495 to 2.505 mol/l

Cat. No.	Pk	Pack type
191675A	2,5 l	Plastic bottle

Sulphuric acid 2.5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 2.495 to 2.505 mol/l

Cat. No.	Pk	Pack type
30138.293	1 l	Plastic bottle

Sulphuric acid 2 mol/l (4 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 1.998 to 2.002 mol/l

Cat. No.	Pk	Pack type
198154D	500 ml	Glass bottle
198156F	5 l	Plastic bottle

Sulphuric acid (0.51 - < 1.69 mol/l) in aqueous solution

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Storage Temperature: Ambient temperature

Sulphuric acid 1 mol/l (2 N) in aqueous solution Reag. Ph. Eur. 1086804

Cat. No.	Pk	Pack type
85973.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sulphuric acid 1 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.998 to 1.002 mol/l

Cat. No.	Pk	Pack type
30149.291	1 l	Plastic bottle
30149.325	2,5 l	Plastic bottle
30149.371	5 l	Bag-in-box (Cubitainer)

Sulphuric acid (< 0.51 mol/l) in aqueous solution

CAS 7664-93-9
Index 016-020-00-8
EINECS: 231-639-5
UN: 2796
ADR 8,II

H_2SO_4
M.W. 98.08 g/mol
Density: 1.01 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Sulphuric acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.499 to 0.501 mol/l

Cat. No.	Pk	Pack type
30144.294	1 l	Plastic bottle
30144.328	2,5 l	Plastic bottle
30144.363	5 l	Plastic bottle
30144.408	10 l	Bag-in-box (Cubitainer)

Sulphuric acid 0.25 mol/l (0.5 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.2495 to 0.2505 mol/l

Cat. No.	Pk	Pack type
30143.291	1 l	Plastic bottle
30143.405	10 l	Bag-in-box (Cubitainer)

Sulphuric acid 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
30145.297	1 l	Plastic bottle
30145.402	10 l	Bag-in-box (Cubitainer)

Sulphuric acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0499 to 0.0501 mol/l

Cat. No.	Pk	Pack type
30150.295	1 l	Plastic bottle
30150.320	2,5 l	Plastic bottle
30150.375	5 l	Bag-in-box (Cubitainer)
30150.400	10 l	Bag-in-box (Cubitainer)

Sulphuric acid 0.02 mol/l (0.04 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.01996 to 0.02004 mol/l

Cat. No.	Pk	Pack type
30146.291	1 l	Plastic bottle

Sulphuric acid 0.01 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer ..... 0.00995 to 0.01005 mol/l

Cat. No.	Pk	Pack type
95032.1000	1 l	Plastic bottle

Sulphuric acid 0.01 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00998 to 0.01002 mol/l

Cat. No.	Pk	Pack type
191736T	5 l	Plastic bottle

Sulphuric acid 0.005 mol/l (0.01 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.00499 to 0.00501 mol/l

Cat. No.	Pk	Pack type
30147.408	10 l	Bag-in-box (Cubitainer)

Sulphuric acid (25 - < 51%) in ethanol

Danger
H225 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 7664-93-9
EINECS: 231-639-5
UN: 2924
ADR 3,II

H_2SO_4
M.W. 98.08 g/mol
Storage Temperature: Ambient temperature

Sulfuric acid, alcoholic solution of, Reag. Ph. Eur. 1086803

Cat. No.	Pk	Pack type
87950.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Sulphurous acid 95%

See Sulphuric acid (≥ 95%) p.487

Sulphurous acid 90%

See Sulphuric acid (90 - < 95%) p.488

Sulphurous acid 10%

See Sulphuric acid (5 - < 15%) p.489

Supplements, Microbiology

See Microbiology

TAE buffer solid for 25x concentrated solution (TRIS-acetate-EDTA buffer)

Warning
H319 H315 H317 H412
P280 P273 P302+P352 P305+P351+P338
Storage Temperature: Ambient temperature

TAE buffer solid for 25x concentrated solution (TRIS-acetate-EDTA buffer), ultrapure

Each pack makes 1 l of 25x TAE buffer.

DNase ..... NONE
pH (1X) @25 °C ..... 8.2 - 8.4
Protease ..... NONE
RNase ..... NONE
Solubility (10 %, Water) ..... PASS

Cat. No.	Pk	Pack type
0912-2PK	2	Plastic bag

TAE buffer solution 25x concentrate (TRIS-acetate-EDTA buffer)

Warning
H319 H315 H317 H412
P280 P273 P302+P352 P305+P351+P338
Storage Temperature: Ambient temperature

TAE buffer solution 25x concentrate (TRIS-acetate-EDTA buffer), ultrapure

25X liquid concentrate. Composition of (1x) solution: 0.04 M Tris-Acetate and 0.001 M EDTA with a final pH of 8.0.

pH (4 %, Water) @25 °C ..... 8.2 - 8.4

Cat. No.	Pk	Pack type
0796-1.6L	1,6 l	
0796-4L	4 l	Bag-in-box (Cubitainer)

TAE buffer solution 50x concentrate (TRIS-acetate-EDTA buffer)

Warning
H319 H315 H317 H412
P280 P273 P302+P352 P305+P351+P338
Density: 1.09 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

TAE buffer solution 50x concentrate (TRIS-acetate-EDTA buffer), ultrapure

pH (2 %, Water)@25 °C ..... 8.2 - 8.4
Solubility (5 %, Water) ..... PASS

Cat. No.	Pk	Pack type
K915-1.6L	1,6 l	Plastic bottle
K915-4L	4 l	Bag-in-box (Cubitainer)

TAE buffer solution 50x concentrate (TRIS-acetate-EDTA buffer) Electran® for electrophoresis

50x concentrated solution of 2M Tris 50 mM EDTA and 1 M acetic acid pH 8.0 in distilled, deionised water.

Appearance ..... Clear and colourless
pH ..... 8.30 to 8.70
DNases (exo- and endonucleases) ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected

Cat. No.	Pk	Pack type
444125D	1 l	Glass bottle

Talc

Magnesium silicate monohydrate

Warning
H332

CAS 14807-96-6
EINECS: 238-877-9

$Mg_3O_{11}Si_4.1H_2O$
M.W. 379.27 g/mol
Density: 2.58 to 2.83 g/cm³ (20 °C)
Melting Pt: Min. 1200 °C
Storage Temperature: Ambient temperature

Talc Ph. Eur.

Appearance ..... White fatty powder
Identification A ..... Passes test
Solution S1 ..... Passes test
Solution S2 ..... Passes test
Acidity or alkalinity ..... Passes test
Water-soluble substances ..... Max. 0.2 %
Al (Aluminium) ..... Max. 2.0 %
Ca (Calcium) ..... Max. 0.90 %
Fe (Iron) ..... Max. 0.25 %
Pb (Lead) ..... Max. 10.0 ppm
Mg (Magnesium) ..... 17.0 to 19.5 %
Loss on ignition ..... Max. 7.0 %
TAMC ..... Max. 10^2 CFU/g
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
83557.260	500 g	Plastic bottle for solids

Talc GPR RECTAPUR®

Loss on ignition ..... Max. 10.0 %

Cat. No.	Pk	Pack type
28460.268	500 g	Plastic bottle for solids

Talc TECHNICAL

Loss on ignition ..... Max. 10.0 %

Cat. No.	Pk	Pack type
28454.360	5 kg	Bucket (Plastic)

Tantalum standard solution, 1,000 mg/l Ta in water with hydrofluoric acid (max. 1%)

CAS 7440-25-7
EINECS: 231-135-5

Ta
M.W. 180.95 g/mol
Storage Temperature: Ambient temperature

Tantalum standard solution, 1,000 mg/l Ta in water with hydrofluoric acid (max. 1%) (from Ta) ARISTAR® standard for ICP

Ta in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456102J	100 ml	Plastic bottle
456104L	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tantalum standard solution, 1,000 mg/l Ta in 5% nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-25-7
EINECS: 231-135-5
UN: 3264
ADR 8,III

Ta
M.W. 180.95 g/mol
Storage Temperature: Ambient temperature

NEW

Tantalum standard solution, 1,000 mg/l Ta in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86714.180	100 ml	Plastic bottle
86714.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tap for Drums

PP, white, 3/4" screw thread

Type	Pk	Cat. No.
Tap, 3/4" threaded for drums	1	331582B

Tap for Drum, Vented

PE, 3/4" screw thread

Type	Pk	Cat. No.
Tap, vented with 3/4 " screw thread	1	332672G

Tap for Drums, Vented

PE, white, 3/4" screw thread

Supplied with 2" adapter (PE) for 25 litre and 200 litre drums.

Type	Pk	Cat. No.
Tap, vented with 3/4 " screw thread + 2" adapter	1	332862K

Tap for Jerricans

PE, vented, for use with plastic jerricans with external thread (DIN 42)

Type	Pk	Cat. No.
Tap with cap and screw thread DIN 42	1	29048.098
Tap with cap and screw thread DIN 42, fluorinated	1	29048.099

Tap for Drums

PE, white, 3/4" screw thread

Type	Pk	Cat. No.
Tap, 3/4" threaded for drums	1	29548.096

Tap for Drums

PE, white, 2" screw thread

Type	Pk	Cat. No.
Tap, 2" threaded for drums	1	29548.097

TAPS (3-(Tris(hydroxymethyl) methylamino)propane-1-sulphonic acid)

CAS 29915-38-6
EINECS: 249-954-1

$C_7H_{17}NO_6S$
M.W. 243.28 g/mol
Storage Temperature: Ambient temperature

TAPS (3-(Tris(hydroxymethyl)methylamino) propane-1-sulphonic acid), high purity

DNase	NONE
Heavy Metals	0.0005 %
Identification	PASS
pH (5 %, Water) @25 °C	3.5 - 6.5
Protease	NONE
Purity	99 %
RNase	NONE
Solubility (5 %, Water)	PASS
Water (KF)	1.0 %

Cat. No.	Pk	Pack type
J562-100G	100 g	Plastic bottle for solids

TAPS sodium salt (3-(Tris(hydroxymethyl) methylamino)propane-1-sulphonic acid sodium salt)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 91000-53-2

$C_7H_{17}NO_6S$
M.W. 243.28 g/mol
Storage Temperature: Ambient temperature

TAPS sodium salt (3-(Tris(hydroxymethyl) methylamino)propane-1-sulphonic acid sodium salt) for biotechnology

pH (1 %, Water) @25 °C	10.1 - 10.7
Purity	98 %

Cat. No.	Pk	Pack type
J598-100G	100 g	Plastic bottle for solids

Taq DNA Polymerase

see PCR

(R,R)-(+)-Tartaric acid dipotassium salt hemihydrate

See di-Potassium L(+)-tartrate hemihydrate ... p.389

L(+)-Tartaric acid dipotassium salt hemihydrate

See di-Potassium L(+)-tartrate hemihydrate ... p.389

L(+)-Tartaric acid disodium salt dihydrate

See di-Sodium L(+)-tartrate dihydrate ... p.458

(R,R)-(+)-Tartaric acid disodium salt dihydrate

See di-Sodium L(+)-tartrate dihydrate ... p.458

L(+)-Tartaric acid potassium salt

See L(+)-Potassium hydrogen tartrate ... p.380

(R,R)-(+)-Tartaric acid potassium salt

See L(+)-Potassium hydrogen tartrate ... p.380

L(+)-Tartaric acid potassium sodium salt tetrahydrate

L(+)-Tartaric acid potassium sodium salt tetrahydrate

See L(+)-Potassium sodium tartrate tetrahydrate p.388

(R,R)-(+)-Tartaric acid potassium sodium salt tetrahydrate

See L(+)-Potassium sodium tartrate tetrahydrate p.388

(R,R)-(+)-Tartaric acid

See L(+)-Tartaric acid p.494

L(+)-Tartaric acid

(R,R)-(+)-Tartaric acid , natural tartaric acid ,
(R,R)-(+)-2,3-Dihydroxysuccinic acid

Warning
H319
P280 P305+P351+P338

CAS 87-69-4
EINECS: 201-766-0
Flash Pt: 150 °C (closed cup)

$C_4H_6O_6$
M.W. 150.09 g/mol
Density: 1.759 g/cm³ (20 °C)
Boiling Pt: 399 °C (1013 hPa)
Melting Pt: 168 to 170 °C
Storage Temperature: Ambient temperature

L(+)-Tartaric acid AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.5 %	Heavy metals (as Pb)	Max. 5 ppm
Ignition residue (SO_4)	Max. 100 ppm	Insolubility in water	Max. 50 ppm
C_2O_4 (Oxalate)	Max. 0.1 %	Cl (Chloride)	Max. 5 ppm
PO_4 (Phosphate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 20 ppm	Fe (Iron)	Max. 5 ppm

Cat. No.	Pk	Pack type
20718.233	250 g	Plastic bottle for solids
20718.290	1 kg	Plastic bottle for solids

L(+)-Tartaric acid, powder Ph. Eur.

Assay (calculated on dried substance)	99.5 to 101.0 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Spec. opt. rotation (dried substance)	12.0 to 12.8 °
Oxalic acid	Max. 350 ppm
Cl (Chloride)	Max. 100 ppm
SO_4 (Sulphate)	Max. 150 ppm
Ca (Calcium)	Max. 200 ppm
Heavy metals (as Pb)	Max. 10 ppm
Loss on drying (105°C)	Max. 0.2 %
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83511.290	1 kg	Plastic bottle for solids
83511.360	5 kg	Plastic bottle for solids

L(+)-Tartaric acid, crystallized GPR RECTAPUR®

Assay	Min. 99 %
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.2 %
Cl (Chloride)	Max. 50 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
20715.290	1 kg	Plastic bottle for solids
20715.368	5 kg	Plastic bottle for solids

TBE powder - disodium

TBE powder - disodium, ultrapure

Foil pouch contains sufficient material to prepare 1 l of 10X concentrate. A single strength (1X) solution contains 0.089 M Tris Base; 0.089 M Boric Acid; and 0.002 M EDTA, Disodium Salt, Dihydrate with a final pH of 8.3.

Conductivity (1.703%, Water) @25 °C	750 - 1250 umhos
pH (1.703%, Water) @25 °C	8.2 - 8.4
Solubility (17.03%, Water)	PASS

Cat. No.	Pk	Pack type
J490-2PK	2	Pouch

TBE buffer solution 10x concentrate (TRIS-borate-EDTA buffer)

Danger
H360FD H319 H335 H315
P201 P281 P302+P352 P304+P340 P305+P351+P338
P312
Density: 1.06 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

TBE buffer solution 10x concentrate (TRIS-borate-EDTA buffer) Electran® for electrophoresis

10x concentrated solution of 0.9 M Tris, 0.9 M borate and 0.02 M EDTA pH 8.3 in distilled, deionised water.

Cat. No.	Pk	Pack type
444136G	5 l	Plastic container

TBE buffer solution 10x concentrate (TRIS-borate-EDTA buffer), ultrapure

Available in powder or Ready-Pack™ foil pouch. Composition of (1X) TBE buffer: 0.089 M Tris base; 0.089 M boric acid; 0.002 M EDTA, free acid; final pH 8.3. Each Ready-Pak™ prepares 1 l of 10X concentrate. One 40 l pack prepares 4 l of 1X.

DNase	NONE
pH (1X Concentration) @25 °C	8.1 - 8.5
Protease	NONE
RNase	NONE
Solubility (1X Concentration)	PASS

Cat. No.	Pk	Pack type
0478-2PK	2	Pouch
0478-40L	1 kg	Plastic bottle for solids

TBE buffer solution 10x concentrate (TRIS-borate-EDTA buffer), ultrapure

Composition of (1X) solution contains 0.089 M Tris base, 0.089 M borate and 0.002 M EDTA, disodium salt, dihydrate with a final pH of 8.3.

Conductivity (1:10) @25 °C	750 - 1250 umhos
DNase	NONE
pH (1:10) @25 °C	8.2 - 8.4
Protease	NONE
RNase	NONE

Cat. No.	Pk	Pack type
0658-500ML	500 ml	Plastic bottle
0658-1L	1 l	Plastic bottle for solids
0658-4L	4 l	Bag-in-box (Cubitainer)

TBE buffer solution 10x concentrate (TRIS-borate-EDTA buffer)

pH (1:10) @25 °C	8.20 - 8.40

Cat. No.	Pk	Pack type
E442-500ML	500 ml	Plastic bottle

TBE buffer solution 5x concentrate (TRIS-borate-EDTA buffer)

Danger
H360FD H319 H335 H315
P201 P281 P302+P352 P304+P340 P305+P351+P338 P312
Storage Temperature: Ambient temperature

VWR CHEMICALS TBE buffer solution 5x concentrate (TRIS-borate-EDTA buffer), ultrapure

Composition of (1X) solution contains 0.089 M Tris base, 0.089 M borate and 0.002 M EDTA, disodium salt, dihydrate with a final pH of 8.3.

Conductivity (20 %, Water) @25 °C ..... 835 - 1065 uhmos
pH (20 %, Water) @ 25 °C ..... 8.2 - 8.4
pH @25 °C ..... REPORT
Titration ..... 0.875 - 0.965 M

Cat. No.	Pk	Pack type
J885-1L	1 l	Plastic bottle
J885-4L	4 l	Bag-in-box (Cubitainer)

TBS with BSA, powder, blend

VWR CHEMICALS TBS with BSA, powder blend, proteomics grade

Powder blocking agent offered as a convenient 5 pack. Each pack prepares 1 l of a 1X solution.

Cat. No.	Pk	Pack type
M231-22G-5PK	110 g	Plastic bag

TBS with nonfat milk, powder, blend

VWR CHEMICALS TBS with non fat milk, powder blend, proteomics grade

Powdered blocking buffer blend supplied in 5 convenient pre-measured packs. Each pack prepares 1 l of 1X solution.

Cat. No.	Pk	Pack type
M230-42G-5PK	210 g	Plastic bag

TBS with TWEEN, powder, blend

VWR CHEMICALS TBS with TWEEN, powder blend, proteomics grade

Powdered blocking buffer blend supplied in 5 convenient pre-measured packs. Each pack prepares 1 l of 1X solution.

pH (1.25%, Water) @25 °C ..... 7.3 - 7.5
Protease (1.25%, Water) ..... NONE

Cat. No.	Pk	Pack type
M235-12.5G-5PK	62,5 g	Plastic bag

TBS / TWEEN 20 buffer 20X

VWR CHEMICALS TBS / TWEEN 20 buffer 20x, ultrapure

Prepares 10 l of 1X buffer.

Concentration ..... 380 - 420 mM
pH (1:20, Water)@25 °C ..... 7.50 - 7.70

Cat. No.	Pk	Pack type
K873-500ML	500 ml	Plastic bottle

TBS buffer solid for 20x concentrated solution

Storage Temperature: Ambient temperature

VWR CHEMICALS TBS buffer solid for 20x concentrated solution, ultrapure

Each Ready-Pack™ prepares a 20X TBS solution when dissolved in 1 litre of water. A 1X solution contains 140 mM sodium chloride, 3.0 mM potassium chloride, and 25 mM Tris.

Conductivity (1.2 %, Water) ..... REPORT
pH (1.2 %, Water) @25 °C ..... 7.25 - 7.55
Solubility (1.2 %, Water) ..... PASS

Cat. No.	Pk	Pack type
0788-2PK	2	Set of items

TBS buffer solution 20x concentrate (TRIS buffered saline)

Storage Temperature: Ambient temperature

VWR CHEMICALS TBS buffer solution 20x concentrate (TRIS buffered saline), ultrapure

Prepares 80 L of 1X buffer. A 1X solution of Tris buffered saline (TBS) contains 140 mM sodium chloride, 3.0 mM potassium chloride, and 25 mM Tris.

pH @25 °C ..... 7.25 - 7.55
Tris ..... 450 - 550 mM

Cat. No.	Pk	Pack type
J640-4L	4 l	Bag-in-box (Cubitainer)

TBX Agar

See Microbiology

TCA

See Trichloroacetic acid (glacial) p.512

TCEP HCl (Tris(2-carboxyethyl)phosphine hydrochloride)

Danger
H314
P280 P301+P330+P331 P305+P351+P338 P309+P310

CAS 51805-45-9
UN: 3261
ADR 8,II

$C_9H_{16}ClO_6P$
Storage Temperature: 2 - 8°C

VWR CHEMICALS TCEP HCl (Tris(2-carboxyethyl)phosphine hydrochloride) for biotechnology

Purity (TLC) ..... 99.0 %
Solubility (50 mg/ml, Water) ..... PASS

Cat. No.	Pk	Pack type
K831-2G	2 g	Glass bottle
K831-10G	10 g	Glass bottle

TE buffer solution (TRIS-EDTA buffer)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P309+P311
Storage Temperature: Ambient temperature

TE buffer solution (TRIS-EDTA buffer) pH 8.0 for biotechnology

Conductivity @ 25°C..... 775 - 975 umhos
DNase..... NONE
pH @25 °C.....7.90 - 8.10
Protease ..... NONE
Reassay Date..... REPORT
RNase ..... NONE

Cat. No.	Pk	Pack type
E112-100ML	100 ml	Plastic bottle
E112-500ML	500 ml	Plastic bottle

Teepol® Bleach

See Mildly alkaline and liquid cleaning concentrate, with activated chlorinep.313

Teepol® L

See Liquid cleaning concentrate, tenside p.266

Tellurium standard solution, 10,000 mg/l Te in 40% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 13494-80-9
EINECS: 236-813-4
UN: 1789
ADR 8,II

Te
M.W. 127.6 g/mol
Storage Temperature: Ambient temperature

Tellurium standard solution, 10,000 mg/l Te in 40% hydrochloric acid (from Te) ARISTAR® standard for ICP

Te in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456132P	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tellurium standard solution, 1,000 mg/l Te in 20% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 13494-80-9
EINECS: 236-813-4
UN: 1789
ADR 8,II

Te
M.W. 127.6 g/mol
Storage Temperature: Ambient temperature

Tellurium standard solution, 1,000 mg/l Te in 20% hydrochloric acid (from Te) ARISTAR® standard for ICP

Te in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456122N	100 ml	Plastic bottle
456124P	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tellurium standard solution, 1,000 mg/l Te in 10% nitric acid

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 13494-80-9
EINECS: 236-813-4
UN: 3264
ADR 8,III

Te
Storage Temperature: Ambient temperature

NEW Tellurium standard solution, 1,000 mg/l Te in 10% nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86715.180	100 ml	Plastic bottle
86715.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

TEMED

See N,N,N',N'-Tetramethylethylenediamine (TEMED) p.501

Tensides

Benzethonium chloride anhydrous TECHNICAL..... p.63
Cetrimonium bromide AnalaR NORMAPUR® analytical reagent..... p.102
Tween® 20 (Polysorbate) TECHNICAL..... p.525
Tween® 80 (Polysorbate) TECHNICAL..... p.526

TEOS

See Tetraethyl orthosilicate (TEOS)..... p.499

Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-27-9
EINECS: 231-137-6
UN: 3264
ADR 8,III

Tb
M.W. 158.93 g/mol
Storage Temperature: Ambient temperature

Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid (from Tb) ARISTAR® standard for ICP-MS

Tb in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456932Q	100 ml	Plastic bottle

Supplied with certificate of analysis.

Terbium standard solution, 1,000 mg/l Tb in dil. nitric acid (from Tb_4O_7) ARISTAR® standard for ICP

Tb_4O_7 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456142R	100 ml	Plastic bottle
456144T	500 ml	Plastic bottle

Supplied with certificate of analysis.

Terpentine

See Turpentine oil p.525

TES (2-(Tris(hydroxymethyl)methylamino) ethane-1-sulphonic acid)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7365-44-8
EINECS: 230-906-3

$C_6H_{15}NO_6S$
M.W. 229.25 g/mol
Storage Temperature: Ambient temperature

TES (2-(Tris(hydroxymethyl)methylamino) ethane-1-sulphonic acid), reagent grade

Abs.@260 nm (0.1 M, Water) 0.02
Melting Point ..... 214 - 224 °C
Moisture (KF) ..... 1.0 %
pH (1 %, Water) @ 25°C ..... REPORT
Purity ..... 99.0 %

Cat. No.	Pk	Pack type
E133-100G	100 g	Glass bottle

Tetraammonium cerium tetrakis(sulphate) dihydrate

See Ammonium cerium (IV) sulphate dihydrate p.31

2,4,5,7-Tetrabromofluorescein

See Eosin Y (yellowish) p.171

Tetrabromofluorescein

See Eosin Y (yellowish) p.171

Tetrabutylammonium bisulphate

See Tetrabutylammonium hydrogen sulphate p.497

Tetrabutylammonium hydrogen sulphate

Tetrabutylammonium bisulphate

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 32503-27-8
EINECS: 251-068-5

$(C_4H_9)_4NHSO_4$
M.W. 339.54 g/mol
Density: 1.01 g/cm³ (25 °C)
Melting Pt: 169 to 172 °C

Tetrabutylammonium hydrogen sulphate for synthesis

Assay ..... Min. 98 %
Melting point ..... 169 to 172 °C

Cat. No.	Pk	Pack type
28529.186	100 g	Plastic bottle for solids

Tetrabutylammonium hydroxide (≥ 5%) in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 2052-49-5
EINECS: 218-147-6
UN: 3267
ADR 8,II

$(C_4H_9)_4NOH$
Storage Temperature: 2 - 8°C

Tetrabutylammonium hydroxide 40% in aqueous solution TECHNICAL

Assay ..... 39 to 41 %

Cat. No.	Pk	Pack type
28530.135	25 ml	Glass bottle

May crystallize; can be dissolved on heating to 40°C

Tetrabutylammonium hydroxide (0.04 - < 0.19 mol/l) in 2-propanol (> 60%) / methanol

Danger
H225 H370 H302+H312+H332 H318 H315 H336
P210 P243 P280 P302+P352 P304+P340
P305+P351+P338 P309+P310

CAS 2052-49-5
EINECS: 218-147-6
UN: 1992
ADR 3,II

$(C_4H_9)_4NOH$
Storage Temperature: 2 - 8°C

Tetrabutylammonium hydroxide 0.1 mol/l (0.1 N) in 2-propanol 90% (v/v) / methanol 10% (v/v) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
28533.261	500 ml	Glass bottle

Tetrabutylammonium hydroxide (0.04 - < 0.19 mol/l) in toluene (> 75%) / methanol

Danger
H225 H302+H312+H332 H370
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 2052-49-5
EINECS: 218-147-6
UN: 1992
ADR 3,II
Flash Pt: 4

$(C_4H_9)_4NOH$
Storage Temperature: 2 - 8°C

Tetrabutylammonium hydroxide 0.1 mol/l (0.1 N) in toluene 90% (v/v) / methanol 10% (v/v) AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
28532.267	500 ml	Glass bottle

Tetrachloroauric acid trihydrate

See tetra-Chloroauric (III) acid trihydrate..... p.105

1,1,2,2-Tetrachloroethane

Danger
H310+H330 H411
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 79-34-5
Index 602-015-00-3
EINECS: 201-197-8
UN: 1702
ADR 6.1,II

Restricted to industrial plants

$Cl_2HCCHCl_2$
M.W. 167.85 g/mol
Density: 1.595 g/cm³ (20 °C)
Boiling Pt: 146.3 °C (1013 hPa)
Melting Pt: -43 °C
Storage Temperature: Ambient temperature

1,1,2,2-Tetrachloroethane GPR RECTAPUR®

Assay ..... Min. 98 %
Density (20/4) ..... 1.590 to 1.600
n 20/D ..... 1.493 to 1.495

Cat. No.	Pk	Pack type
20091.293	1 l	Glass bottle

Tetrachloroethene

See Tetrachloroethylene..... p.498

Tetrachloroethylene

Ethylene tetrachloride , Perchloroethylene , Tetrachloroethene

Warning
H351 H411
P201 P281 P273 P308+P313

CAS 127-18-4
Index 602-028-00-4
EINECS: 204-825-9
UN: 1897
ADR 6.1,III

C_2Cl_4
M.W. 165.83 g/mol
Density: 1.63 g/cm³ (20 °C)
Boiling Pt: 121.1 °C (1013 hPa)
Melting Pt: -22 °C
Storage Temperature: Ambient temperature

Tetrachloroethylene SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.9 %
Acidity ..... Max. 0.0005 meq/g
Water ..... Max. 0.01 %
Evaporation residue (100°C) ..... Max. 0.0005 %
Transmittance (290 nm) ..... Min. 15 %
Transmittance (295 nm) ..... Min. 60 %
Transmittance (310 nm) ..... Min. 85 %
Transmittance (350 nm) ..... Min. 89 %
Transmittance (400 nm) ..... Min. 95 %

Cat. No.	Pk	Pack type
83950.290	1 l	Glass bottle

Tetrachloroethylene GPR RECTAPUR®

Assay ..... Min. 99 %
IR Spectrum ..... Passes test
Density (20/4) ..... 1.620 to 1.630
Distillation range ..... 120 to 122 °C
Free acidity ..... Max. 0.0003 meq/g
n 20/D ..... 1.503 to 1.505
Evaporation residue ..... Max. 10 ppm
Free chlorine ..... Max. 2 ppm
Water ..... Max. 50 ppm
Conforms to BDH 30693 ..... Passes test

Cat. No.	Pk	Pack type
26218.292	1 l	Glass bottle
26218.326	2,5 l	Glass bottle
26218.361	5 l	Fluorinated plastic bottle

Tetrachloroethylene TECHNICAL

Assay ..... Min. 98 %
n 20/D ..... 1.503 to 1.505

Cat. No.	Pk	Pack type
26217.298	1 l	Glass bottle
26217.323	2,5 l	Glass bottle
26217.367	5 l	Fluorinated plastic bottle
26217.460	25 l	Metal drum

2,2,o,p'-Tetrachlorovinylidenebisbenzene

See 2,4'-DDE p.132

Tetracycline (50mg/ml)

VWR CHEMICALS Tetracycline (50mg/ml), ultrapure

Blocks the binding of tRNA to the 30S subunit. 50 mg/ml solution. Recommended working concentration: 15 µg/ml.

Color ..... 10 APHA
Identification ..... PASS

Cat. No.	Pk	Pack type
E709-20ML	20 ml	Vial

Tetracycline hydrochloride

Warning
H319 H335 H315
P261 P305+P351+P338

CAS 64-75-5
EINECS: 200-593-8

$C_{22}H_{25}ClN_2O_8$
Storage Temperature: Ambient temperature

VWR CHEMICALS Tetracycline hydrochloride

Blocks the binding of tRNA to the 30S subunit. Recommended working concentration: 15 µg/ml.

4-Ephianhydrotetracycline ..... 2.0 %
Crystallinity ..... PASS
Expiration Date ..... REPORT
Heavy Metals ..... 0.005 %
Identification ..... PASS
Loss on Drying ..... 2.0 %
pH (1%, Water) @25 °C ..... 1.8 - 2.8
Potency (Anhydrous) ..... 900 mcg/mg
Potency (As Is) ..... REPORT
Specific Rotation ..... -255 to -240 °

Cat. No.	Pk	Pack type
0422-EU-25G	25 g	Glass bottle

Tetraethyl orthosilicate (TEOS)

Danger
H226 H332 H319 H335
P210 P243 P280 P304+P340 P305+P351+P338 P312

CAS 78-10-4
Index 014-005-00-0
EINECS: 201-083-8
UN: 1292
ADR 3,III
Flash Pt: 38 °C

$Si(OC_2H_5)_4$
M.W. 208.33 g/mol
Density: 0.933 g/cm³ (20 °C)
Boiling Pt: 168 °C (1013 hPa)
Melting Pt: -85.5 °C
Storage Temperature: Ambient temperature

Tetraethyl orthosilicate (TEOS) GPR RECTAPUR®

Assay ..... Min. 99 %
Acidity ..... Max. 0.002 meq/g
Density (20/4) ..... 0.930 to 0.940
Cl (Chloride) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
24004.290	1 l	Glass bottle

Tetraethylammonium hydroxide in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 77-98-5
EINECS: 201-073-3
UN: 3267
ADR 8,II

$(C_2H_5)_4N(OH)$

Tetraethylammonium hydroxide 20% in aqueous solution TECHNICAL

Assay ..... Min. 20 %

Cat. No.	Pk	Pack type
28540.130	25 ml	Glass bottle

Tetrafluoroboric acid in aqueous solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 16872-11-0
Index 009-010-00-X
EINECS: 240-898-3
UN: 1775
ADR 8,II

HBF_4
Density: 1.23 g/cm³ (20 °C)

Tetrafluoroboric acid 34% in aqueous solution TECHNICAL

Assay ..... Min. 34 %

Cat. No.	Pk	Pack type
20304.290	1 l	Plastic bottle

Tetrahydrofuran

THF

Danger
H225 H351 H319 H335
EUH019
P201 P210 P243 P281 P304+P340 P305+P351+P338
P309+P311

CAS 109-99-9
Index 603-025-00-0
EINECS: 203-726-8
UN: 2056
ADR 3,II
Flash Pt: -21.5 °C

C_4H_8O
M.W. 72.11 g/mol
Density: 0.888 g/cm³ (20 °C)
Boiling Pt: 66 °C (1013 hPa)
Melting Pt: -108.5 °C
Storage Temperature: Ambient temperature

Tetrahydrofuran HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen, Not being stabilized, this product normally loses strength during storage.

Assay (on anhydrous substance)	Min. 99.7 %
Water	Max. 0.1 %
Evaporation residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Transmittance (230 nm)	Min. 40 %
Transmittance (240 nm)	Min. 60 %
Transmittance (250 nm)	Min. 70 %
Transmittance (260 nm)	Min. 80 %
Transmittance (280 nm)	Min. 96 %
Transmittance (300 nm)	Min. 98 %
Conforms to BDH 15247	Passes test

Cat. No.	Pk	Pack type
28559.290	1 l	Glass bottle
28559.320	2,5 l	Glass bottle

NEW Tetrahydrofuran SPECTRONORM® for spectroscopy

Unstabilized

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.02 %
Transmittance (250 nm)	Min. 60 %
Transmittance (260 nm)	Min. 75 %
Transmittance (280 nm)	Min. 95 %
Transmittance (300 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84707.290	1 l	Glass bottle
84707.320	2,5 l	Glass bottle

Tetrahydrofuran, anhydrous (max. 0.003% H_2O)

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 250 ppm

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.9 %
Acidity	Max. 0.0005 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 30 ppm

Cat. No.	Pk	Pack type
83678.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

NEW Tetrahydrofuran for peptide synthesis

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 200 - 300 ppm

Assay (calculated on anhydrous)	Min. 99.9 %
Appearance	Clear colourless liquid
Acidity	Max. 0.002 %
Free amines	Max. 0.0002 %
Peroxides (as H_2O_2)	Max. 0.005 %
Residue on evaporation	Max. 0.0005 %
Stabilizer (BHT)	0.02 to 0.03 %
Water	Max. 0.01 %
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Pb (Lead)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
84577.320	2,5 l	Glass bottle

Tetrahydrofuran AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 250 - 400 ppm

Assay (on anhydrous substance)	Min. 99.5 %	IR Spectrum	Passes test
Acidity	Max. 0.001 meq/g	Boiling point	65.0 to 66.5 °C
Colouration	Max. 20 APHA	Density (20/4)	0.885 to 0.888
Density (20/20)	0.886 to 0.890	n 20/D	1.406 to 1.408
Evaporation residue	Max. 0.03 %	Peroxides (as H_2O_2)	Max. 0.015 %
Water	Max. 0.05 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
28551.296	1 l	Glass bottle
28551.321	2,5 l	Glass bottle
28551.460	25 l	Metal drum

Tetrahydrofuran, dehydrated (max. 0.01% H_2O) AnalaR NORMAPUR® analytical reagent

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) max. 300 ppm

Assay (calculated on dried substance)	Min. 99.8 %	Appearance	Clear colourless liquid
Acidity	Max. 0.006 %	Peroxides (as H_2O_2)	Max. 0.02 %
Residue on evaporation	Max. 0.001 %	Stabilizer (Ionol/BHT)	Max. 0.03 %
Water	Max. 0.01 %	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm	Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm	Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
28553.293	1 l	Glass bottle

Tetrahydrofuran GPR RECTAPUR®

Stabilised with BHT (2,6-Di-tert-butyl-p-cresol, 2,6-Di-tert-butyl-4-methylphenol, Ionol) 250 - 400 ppm

Assay	Min. 99 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test
Density (20/4)	0.885 to 0.888
Distillation range	65 to 67 °C
Free acidity	Max. 0.0003 meq/g
n 20/D	1.406 to 1.408
Peroxides (as H_2O_2)	Max. 100 ppm
Water	Max. 0.03 %
Conforms to BDH 30371	Passes test

Cat. No.	Pk	Pack type
28552.290	1 l	Glass bottle
28552.324	2,5 l	Glass bottle
28552.368	5 l	Metal can
28552.461	25 l	Metal drum

Tetrahydrofuran-[D8]

THF-D8

Danger
H225 H319 H335
EUH019
P210 P243 P280 P304+P340 P305+P351+P338 P312

CAS 1693-74-9
EINECS: 216-898-4
UN: 2056
ADR 3,II
Flash Pt: -17 °C (closed cup)

C_4D_8O
M.W. 80.04 g/mol
Density: 0.98 g/cm³ (20 °C)
Boiling Pt: 65 °C (1013 hPa)
Melting Pt: -108 °C
Storage Temperature: Ambient temperature

Tetrahydrofuran-[D8] (99.5% D) for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.50 %
Water (HDO+D_2O) ..... Max. 0.05 %

Cat. No.	Pk	Pack type
87158.0010	10 ml	Glass bottle

(±)-Tetrahydrofurfuryl alcohol

(±)-Tetrahydro-2-furfuryl alcohol , (±)-Tetrahydro-2-furyl methanol , (±)-THFA

Warning
H319
P280 P305+P351+P338

CAS 97-99-4
Index 603-061-00-7
EINECS: 202-625-6
Flash Pt: 75 °C (closed cup)

$C_5H_{10}O_2$
M.W. 102.13 g/mol
Density: 1.0543 g/cm³ (20 °C)
Boiling Pt: 178 °C (1013 hPa)
Melting Pt: Max. -80 °C
Storage Temperature: Ambient temperature

(±)-Tetrahydrofurfuryl alcohol VLSI Selectipur® for the electronics industry

Cat. No.	Pk	Pack type
52110064.	12 kg	Plastic drum

This product is not available in all countries. Please check with your local VWR International office or supplier.

(±)-Tetrahydro-2-furyl methanol

See (±)-Tetrahydrofurfuryl alcohol p.501

Tetramethylammonium chloride

See Tetramethylammonium chloride p.509

Tetramethylammonium hydroxide in aqueous solution

Danger
H300 H312 H314
P280 P301+P330+P331 P302+P352
P305+P351+P338 P309+P310

CAS 75-59-2
EINECS: 200-882-9
UN: 1835
ADR 8,II

$(CH_3)_4N(OH)$
Density: 1.02 g/cm³ (20 °C)
Boiling Pt: 110 °C (1013 hPa)
Storage Temperature: Ambient temperature

Tetramethylammonium hydroxide 25% in aqueous solution GPR RECTAPUR®

Assay ..... 24 to 26 %
Halide (as Cl) ..... Max. 0.2 %
Ignition residue (SO_4) ..... Max. 0.1 %

Cat. No.	Pk	Pack type
191773B	100 ml	Glass bottle

N,N,N',N'-Tetramethylethylenediamine (TEMED)

1,2-Bis(dimethylamino)ethane

Danger
H225 H302+H332 H314
P210 P243 P280 P301+P330+P331 P304+P340
P309+P310

CAS 110-18-9
Index 612-103-00-3
EINECS: 203-744-6
UN: 2372
ADR 3,II
Flash Pt: 17 °C (closed cup)

$C_6H_{16}N_2$
M.W. 116.21 g/mol
Density: 0.7765 g/cm³ (20 °C)
Boiling Pt: 120 °C (1013 hPa)
Melting Pt: -64 °C
Storage Temperature: Ambient temperature

TEMED (N,N,N',N'-Tetramethylethylenediamine) Electran® for electrophoresis

Accelerator used in polyacrylamide gel polymerisation, usually equimolar to initiator - TEMED

Cat. No.	Pk	Pack type
443083G	25 ml	Glass bottle

TEMED (N,N,N',N'-Tetramethylethylenediamine), ultrapure

Boiling Range ..... 119 - 121 °C
Purity (Anhydrous Basis) ..... 99.0 %
Refractive Index ..... 1.417 - 1.419

Cat. No.	Pk	Pack type
0761-25ML	25 ml	Glass bottle
0761-50ML	50 ml	Glass bottle
0761-100ML	100 ml	Glass bottle

TEMED (N,N,N',N'-Tetramethylethylenediamine), proteomics grade

Boiling Range ..... 119 - 121 °C
DNase ..... NONE
Protease ..... NONE
Purity (Anhydrous Basis) ..... 99.0 %
Refractive Index ..... 1.417 - 1.419
RNase ..... NONE

Cat. No.	Pk	Pack type
M146-25ML	25 ml	Glass bottle
M146-50ML	50 ml	Glass bottle
M146-100ML	100 ml	Glass bottle

Tetrapotassium hexacyanoferrate trihydrate

See Potassium hexacyanoferrate (II) trihydrate p.377

Tetrasodium diphosphate decahydrate

See tetra-Sodium diphosphate decahydrate p.438

Tetrasodium ethylenediaminetetraacetate

See EDTA tetrasodium salt p.162

Tetrazolium salt

See 2,3,5-Triphenyltetrazolium chloride p.517

TFA

See Trifluoroacetic acid p.515

TGB broth

See Microbiology

Thallium standard solution, 10,000 mg/l Tl in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-28-0
EINECS: 231-138-1
UN: 3264
ADR 8,III

Tl
M.W. 204.38 g/mol
Storage Temperature: Ambient temperature

Thallium standard solution, 10,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP

Tl in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456172A	100 ml	Plastic bottle

Supplied with certificate of analysis.

Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP-MS

Tl in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456942S	100 ml	Plastic bottle

Supplied with certificate of analysis.

Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid (from Tl) ARISTAR® standard for ICP

Tl in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456162V	100 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Thallium standard solution, 1,000 mg/l Tl in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86718.180	100 ml	Plastic bottle
86718.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

THAM HCl

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

THAM

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

THF

See Tetrahydrofuran p.499

(±)-THFA

See (±)-Tetrahydrofurfuryl alcohol p.501

THF-D8

See Tetrahydrofuran-[D8] p.501

Thiamine hydrochloride

Aneurine hydrochloride , Thiaminium chloride , VitamineB1 hydrochloride

CAS 67-03-8
EINECS: 200-641-8

$C_{12}H_{18}Cl_2N_4OS$
M.W. 337.27 g/mol
Density: 1.401 g/cm³ (20 °C)
Melting Pt: 252 °C
Storage Temperature: Ambient temperature

Thiamine hydrochloride TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
28605.180	100 g	Plastic bottle for solids

Thiaminium chloride

See Thiamine hydrochloride p.502

Thiazine red

Disodium 2-[4-[(1-hydroxy-4-sulphonato-2-naphthyl)azo]phenyl]-6-methylbenzothiazole-7-sulphonate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 2150-33-6
EINECS: 218-422-0

$H_2NCOCH_2NHCH_2CH_2SO_3H$
M.W. 599.58 g/mol
Storage Temperature: Ambient temperature

Thiazine red TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
27419.123	10 g	Plastic bottle for solids

Thimerosal

See Thiomersal p.504

Thioacetamide

Danger
H350 H302 H319 H315 H412
P201 P281 P273 P302+P352 P305+P351+P338
P309+P311

CAS 62-55-5
Index 616-026-00-6
EINECS: 200-541-4

Restricted to professional users.

CH_3CSNH_2
M.W. 75.13 g/mol
Density: 1.336 g/cm³ (20 °C)
Melting Pt: 113 to 114 °C

Thioacetamide analytical reagent

Assay ..... Min. 99.0 %
Melting point ..... 110 to 113 °C
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Fe (Iron) ..... Max. 5 ppm

Cat. No.	Pk	Pack type
28603.137	25 g	Glass bottle

Thioacetamide in aqueous solution

Danger
H350
P201 P281 P308+P313

CAS 62-55-5
EINECS: 200-541-4

CH_3CSNH_2
M.W. 75.13 g/mol
Density: ~ 1 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Thioacetamide 4% in aqueous solution Reag. Ph. Eur. 1089602

Cat. No.	Pk	Pack type
85975.180	100 ml	Plastic bottle
85975.260	500 ml	Plastic bottle
85975.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Thioacetamide Reagent I + II

Danger
H350 H319 H315
P201 P281 P302+P352 P305+P351+P338 P308+P313

NEW Thioacetamide Reagent I + II Reag. Ph. Eur. 1089601

Cat. No.	Pk	Pack type
85976.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Thiocarbamide

See Thiourea p.504

2,2'-Thiodiethanol

See Thiodiglycol p.503

Thiodiglycol

2,2'-Thiodiethanol

Warning
H319
P280 P305+P351+P338

CAS 111-48-8
Index 603-081-00-6
EINECS: 203-874-3
Flash Pt: 113 °C (closed cup)

$S(CH_2CH_2OH)_2$
M.W. 122.19 g/mol
Density: 1.18 g/cm³ (20 °C)
Boiling Pt: 282 °C (1013 hPa)
Melting Pt: -10 °C

Thiodiglycol TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
28620.182	100 ml	Glass bottle

Thioglycolic acid

See Mercaptoacetic acid (Thioglycolic acid) p.281

Thioglycollate broth

See Microbiology

Thiomersal

Merthiolat , Thimerosal , 2-(Ethylmercuriomercapto)benzoic acid sodium salt , 2-(Ethylmercuriothio)benzoic acid sodium salt , Ethylmercurithiosalicylic acid sodium salt , Sodium ethylmercurithiosalicylate , 2-[(Ethylmercury)thio]benzoic acid sodium salt

Danger
H300+H310+H330 H373 H410
P280 P284 P273 P302+P350 P304+P340 P309+P310

CAS 54-64-8
Index 080-004-00-7
EINECS: 200-210-4
UN: 2025
ADR 6.1,III
Flash Pt: 250 °C (closed cup)

$2\text{-}(C_2H_5HgS)C_6H_4CO_2Na$
M.W. 404.82 g/mol
Melting Pt: 232 to 233 °C
Storage Temperature: Ambient temperature

Thiomersal TECHNICAL

Assay ..... Min. 97 %
pH (20°C ; 0.8 %) ..... 6 to 8
Loss on drying (100°C) ..... Max. 0.5 %

Cat. No.	Pk	Pack type
27850.134	25 g	Plastic bottle for solids
27850.180	100 g	Glass bottle

Thiourea

Thiocarbamide

Warning
H351 H361d H302 H411
P201 P281 P273 P309+P311

CAS 62-56-6
Index 612-082-00-0
EINECS: 200-543-5
UN: 3077
ADR 9,III

NH_2CSNH_2
M.W. 76.12 g/mol
Density: 1.435 g/cm³ (20 °C)
Melting Pt: 174 to 177 °C
Storage Temperature: Ambient temperature

Thiourea analytical reagent

Assay ..... Min. 99.0 %
Ammonium thiocyanate ..... Max. 0.1 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.05 %
Loss on drying (100 °C) ..... Max. 0.5 %
SO_4 (Sulphate) ..... Max. 0.02 %
Ca (Calcium) ..... Max. 100 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
28615.231	250 g	Plastic bottle for solids

VWR CHEMICALS Thiourea, proteomics grade

Melting Range ..... 174 - 177 °C
Protease ..... NONE
Purity ..... 99.0 %
Solubility (1 %, Water) ..... PASS

Cat. No.	Pk	Pack type
M226-100G	100 g	Plastic bottle for solids
M226-500G	500 g	Plastic bottle for solids

Thulium standard solution, 1,000 mg/l Tm in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-30-4
EINECS: 231-140-2
UN: 3264
ADR 8,III

Tm
M.W. 168.93 g/mol
Storage Temperature: Ambient temperature

NEW Thulium standard solution, 1,000 mg/l Tm in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86719.180	100 ml	Plastic bottle
86719.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Thymidine (2'-Deoxythymidine)

Danger
H340 H319 H335 H315
P201 P281 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 50-89-5
EINECS: 200-070-4

$C_{10}H_{14}N_2O_5$
Storage Temperature: Ambient temperature

VWR CHEMICALS Thymidine (2'-Deoxythymidine), ultrapure

Em (267 nm, Phosphate Buffer, pH 7.0) 9200

Cat. No.	Pk	Pack type
0481-5G	5 g	Plastic bottle for solids
0481-25G	25 g	Plastic bottle for solids

Thymidine-5'-triphosphoric acid trisodium salt (2'-Deoxythymidine-5'-triphosphoric acid trisodium salt)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 18423-43-3
EINECS: 222-826-2

$C_{10}H_{14}N_2Na_3O_{14}P_3$
Storage Temperature: -20°C

VWR CHEMICALS Thymidine-5'-triphosphoric acid trisodium salt (2'-Deoxythymidine-5'-triphosphoric acid trisodium salt), ultrapure

Em (267 nm, Phosphate Buffer, pH 7.0) 9200

Cat. No.	Pk	Pack type
0532-50MG	50 mg	Glass bottle
0532-100MG	100 mg	Glass bottle

Thymol

2-Isopropyl-5-methylphenol , 4-Isopropyl-3-hydroxytoluene , 6-Isopropyl-m-cresol

Danger
H302 H314 H411
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 89-83-8
Index 604-032-00-1
EINECS: 201-944-8
UN: 2430
ADR 8,III
Flash Pt: 104 °C

2-[$(CH_3)_2CH$]C_6H_3-5-(CH_3)OH
M.W. 150.22 g/mol
Density: 0.965 g/cm³ (25 °C)
Boiling Pt: 233 °C (1013 hPa)
Melting Pt: 49 to 51 °C
Storage Temperature: Ambient temperature

Thymol Ph. Eur.

Appearance	Colourless crystals
Identification B	Passes test
Appearance of solution	Passes test
Acidity	Passes test
Related substances	Passes test
Residue on evaporation	Max. 0.05 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83558.180	100 g	Plastic bottle for solids

Thymol GPR RECTAPUR®

Assay	Min. 99 %
Melting point	49 to 51 °C
Ignition residue (SO_4)	Max. 0.1 %

Cat. No.	Pk	Pack type
20728.237	250 g	Plastic bottle for solids

Thymol blue (< 0.1%) in ethanol

Danger
H225
P210 P243 P280

CAS 76-61-9
EINECS: 200-973-3
UN: 1170
ADR 3,II
Flash Pt: 20 °C

$C_{27}H_{30}O_5S$
Storage Temperature: Ambient temperature

Thymol blue 0.04% in ethanol TECHNICAL

Transition range: pH 8,0-9,6

Identification	Passes test

Cat. No.	Pk	Pack type
34300.234	250 ml	Glass bottle

Tin

CAS 7440-31-5
EINECS: 231-141-8

Sn
M.W. 118.71 g/mol
Density: 7.31 g/cm³ (25 °C)
Boiling Pt: 2270 °C (1013 hPa)
Melting Pt: 232 °C
Storage Temperature: Ambient temperature

Tin, shots AnalaR NORMAPUR® analytical reagent

As (Arsenic)	Max. 10 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 50 ppm	Pb (Lead)	Max. 50 ppm
Bi (Bismuth)	Max. 40 ppm	Sb (Antimony)	Max. 200 ppm
Zn (Zinc)	Max. 20 ppm		

Cat. No.	Pk	Pack type
23723.231	250 g	Plastic bottle for solids

Tin standard solution, 10,000 mg/l Sn in 10% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-31-5
EINECS: 231-141-8
UN: 1789
ADR 8,II

Sn
M.W. 118.71 g/mol
Storage Temperature: Ambient temperature

Tin standard solution, 10,000 mg/l Sn in 10% hydrochloric acid (from Sn) ARISTAR® standard for ICP

Sn in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456252W	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tin standard solution, 1,000 mg/l Sn in 10% hydrochloric acid (from Sn) ARISTAR® standard for ICP

Sn in HCl

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456242U	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tin standard solution, 10,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-31-5
EINECS: 231-141-8
UN: 3264
ADR 8,III

Sn
M.W. 118.71 g/mol
Storage Temperature: Ambient temperature

Tin standard solution, 10,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP

Sn in HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456232S	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-31-5
EINECS: 231-141-8
UN: 3264
ADR 8,III

Sn
M.W. 118.71 g/mol
Storage Temperature: Ambient temperature

Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP-MS

Sn in 2 % HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456952U	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tin standard solution, 1,000 mg/l Sn in dil. nitric acid with hydrofluoric acid (max. 1%) (from Sn) ARISTAR® standard for ICP

Sn in HNO_3 tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456222Q	100 ml	Plastic bottle
456224S	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tin standard solution, 1,000 mg/l Sn in 20% hydrochloric acid

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 7440-31-5
EINECS: 231-141-8
UN: 1789
ADR 8,II

Sn
M.W. 118.71 g/mol
Storage Temperature: Ambient temperature

Tin standard solution, 1,000 mg/l Sn in 20% hydrochloric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86712.180	100 ml	Plastic bottle
86712.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tin dichloride

See Tin (II) chloride p.506

Tin (II) chloride

Stannous chloride , Tin dichloride

Danger
H302 H314
P280 P301+P330+P331 P304+P340 P309+P310

CAS 7772-99-8
EINECS: 231-868-0
UN: 3260
ADR 8,III

$SnCl_2$
M.W. 189.62 g/mol
Density: 3.95 g/cm³ (20 °C)
Boiling Pt: 623 °C (1013 hPa)
Melting Pt: 246 °C
Storage Temperature: Ambient temperature

Tin (II) chloride, anhydrous GPR RECTAPUR®

Assay	Min. 99 %
SO_4 (Sulphate)	Max. 0.02 %
Cd (Cadmium)	Max. 40 ppm
Cu (Copper)	Max. 40 ppm
Fe (Iron)	Max. 100 ppm
Pb (Lead)	Max. 75 ppm
Zn (Zinc)	Max. 40 ppm

Cat. No.	Pk	Pack type
23746.296	1 kg	Glass bottle for solids

Tin (II) chloride dihydrate

Stannous chloride dihydrate

Danger
H302 H314
P280 P301+P330+P331 P304+P340 P309+P310

CAS 10025-69-1
EINECS: 231-868-0
UN: 3260
ADR 8,III

$SnCl_2 \cdot 2H_2O$
M.W. 225.65 g/mol
Density: 2.71 g/cm³ (25 °C)
Boiling Pt: 623 °C (1013 hPa)
Melting Pt: 246 °C
Storage Temperature: Ambient temperature

Tin (II) chloride dihydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	98 to 103 %	Identification	Passes test
Insolubility in diluted HCl	Passes test	NH_4 (Ammonium)	Max. 20 ppm
SO_4 (Sulphate)	Max. 20 ppm	As (Arsenic)	Max. 1 ppm
Ca (Calcium)	Max. 50 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 30 ppm	K (Potassium)	Max. 50 ppm
Na (Sodium)	Max. 100 ppm	Ni (Nickel)	Max. 5 ppm
Pb (Lead)	Max. 50 ppm	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
23742.260	500 g	Plastic bottle for solids
23742.293	1 kg	Plastic bottle for solids

Tin (II) chloride dihydrate AnalaR NORMAPUR® analytical reagent (max. 0.05 ppm Hg)

Assay	Min. 98 %	Insolubility in diluted HCl	Passes test
Insolubility in alcohol	Max. 100 ppm	NH_4 (Ammonium)	Max. 20 ppm
SO_4 (Sulphate)	Max. 20 ppm	As (Arsenic)	Max. 1 ppm
Ca (Calcium)	Max. 50 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 30 ppm	Hg (Mercury)	Max. 0.05 ppm
K (Potassium)	Max. 50 ppm	Na (Sodium)	Max. 100 ppm
Pb (Lead)	Max. 50 ppm		

Cat. No.	Pk	Pack type
2512.0250	250 g	Plastic bottle for solids

Tin (II) chloride dihydrate GPR RECTAPUR® for mirror makers

Assay	Min. 96 %
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 100 ppm
Pb (Lead)	Max. 50 ppm

Cat. No.	Pk	Pack type
23743.230	250 g	Plastic bottle for solids
23743.296	1 kg	Plastic bottle for solids

Tin (II) chloride dihydrate TECHNICAL

Assay	Min. 95 %

Cat. No.	Pk	Pack type
23738.232	250 g	Plastic bottle for solids

Tin (II) chloride in hydrochloric acid (10-25%)

CAS 7772-99-8
EINECS: 231-868-0
UN: 1789
ADR 8,II

$SnCl_2$
M.W. 189.62 g/mol

Tin (II) chloride 30% in hydrochloric acid 20% Reag. Ph. Eur. 1085001

Cat. No.	Pk	Pack type
87941.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Tiosinamine

See Allylthiourea p.22

TISAB solution (Total Ionic Strength Adjustment Buffer)

Storage Temperature: Ambient temperature

TISAB solution (Total Ionic Strength Adjustment Buffer) for fluoride determinations

Total ionic strength adjustment buffer solution for use with selective ion electrodes.

Cat. No.	Pk	Pack type
160847G	5 l	Plastic container

Titan yellow 0.05% aqueous solution

CAS 1829-00-1
EINECS: 217-377-4

$C_{28}H_{19}N_5Na_2O_6S_4$
M.W. 695.73 g/mol

Titan yellow 0.05% aqueous solution Reag. Ph. Eur. 1090902

Cat. No.	Pk	Pack type
87955.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Titan Yellow paper

Storage Temperature: Ambient temperature

Titan yellow paper Reag. Ph. Eur. 1090901

Cat. No.	Pk	Pack type
87954.150	50 Tests	Kit

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Titanium standard solution, 10,000 mg/l Ti in water with hydrofluoric acid (max. 1%)

CAS 7440-32-6
EINECS: 231-142-3

Ti
M.W. 47.88 g/mol
Storage Temperature: Ambient temperature

Titanium standard solution, 10,000 mg/l Ti in water with hydrofluoric acid (max. 1%) (from $(NH_4)_2TiF_6$) ARISTAR® standard for ICP

$(NH_4)_2$ TiF_6 in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456262B	100 ml	Plastic bottle
456264D	500 ml	Plastic bottle

Supplied with certificate of analysis.

Titanium standard solution, 1,000 mg/l Ti in water with hydrofluoric acid (max. 1%) (from Ti) ARISTAR® standard for ICP-MS

Ti in H_2O tr. HF

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456962W	100 ml	Plastic bottle

Supplied with certificate of analysis.

Titanium standard solution, 1,000 mg/l Ti in 5% nitric acid with hydrofluoric acid (max. 1%)

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-32-6
EINECS: 231-142-3
UN: 3264
ADR 8,III

Ti
M.W. 47.88 g/mol
Storage Temperature: Ambient temperature

Titanium standard solution, 1,000 mg/l Ti in 5% nitric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86717.180	100 ml	Plastic bottle
86717.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Titanium dioxide

See Titanium (IV) oxide p.508

Titanium (III) chloride in hydrochloric acid (10-25%)

Danger
H314 H335
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 7705-07-9
EINECS: 231-728-9
UN: 1789
ADR 8,II

$TiCl_3$

Titanium (III) chloride 15% in hydrochloric acid 10% solution AnalaR NORMAPUR® analytical reagent

Assay..... 14.5 to 15.5 %

Cat. No.	Pk	Pack type
28660.236	250 ml	Glass bottle
28660.293	1 l	Glass bottle

Titanium trichloride solution Reag. Ph. Eur. 1091201

Cat. No.	Pk	Pack type
87708.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Titanium (IV) oxide

Titanium dioxide , Pigment White 6

CAS 13463-67-7
EINECS: 236-675-5

TiO_2
M.W. 79.88 g/mol
Density: 4.2 g/cm³ (20 °C)
Boiling Pt: 2900 °C (1013 hPa)
Melting Pt: 1855 °C
Storage Temperature: Ambient temperature

NEW Titanium (IV) oxide AnalaR NORMAPUR®

Assay	99 to 100.5 %	Heavy metals (as Pb)	Max. 20 ppm
Loss on drying (105 °C)	Max. 0.5 %	Loss on ignition (800°C)	Max. 0.5 %
Solubility in hot water	Max. 0.5 %	Solubility in hydrochloric acid	Max. 0.5 %
As (Arsenic)	Max. 1 ppm	Fe (Iron)	Max. 0.02 %
Sb (Antimony)	Max. 100 ppm		

Cat. No.	Pk	Pack type
84853.290	1 kg	Plastic bottle for solids

Titanium (IV) oxide GPR RECTAPUR®

Assay	Min. 99 %
Loss on ignition (800°C)	Max. 0.5 %
As (Arsenic)	Max. 5 ppm
Fe (Iron)	Max. 0.02 %

Cat. No.	Pk	Pack type
20732.298	1 kg	Plastic bottle for solids

Titanium trichloride - sulphuric acid reagent

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 2796
ADR 8,II
M.W. 240.01 g/mol
Storage Temperature: Ambient temperature

Titanium trichloride - sulphuric acid reagent Reag. Ph. Eur. 1091202

Cat. No.	Pk	Pack type
87711.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Titriplex® III

See EDTA disodium salt dihydrate p.160

Titriplex® VI

See EGTA (Ethylene glycol bis(2-aminoethyl ether)-N,N,N′,N′-tetraacetic acid)... p.162

Tetramethylammonium chloride

TMACl

Danger
H300 H311
P280 P302+P352 P309+P310

CAS 75-57-0
EINECS: 200-880-8
UN: 2811
ADR 6.1,III
Flash Pt: Min. 100 °C

$(CH_3)_4NCl$
M.W. 109.6 g/mol
Density: 1.169 g/cm³ (20 °C)
Melting Pt: Min. 300 °C
Storage Temperature: Ambient temperature

TMA (Tetramethylammonium chloride), high purity

TMA effectively abolishes the differential melting temperatures of AT and GC base pairs, making it a useful reagent for nucleic acid hybridisation procedures.

Loss on Drying ..... 1.0 %
Purity ..... 99.0 %

Cat. No.	Pk	Pack type
0104-500G	500 g	Plastic bottle for solids

TMB Liquid membrane substrate

TMB Liquid membrane substrate for biotechnology

Ready-to-use sensitive substrate for the detection of horseradish peroxidase activity. Absorbs at 450 nm (yellow end-product). Ideal for ELISA and solution assays.

Cat. No.	Pk	Pack type
E888-100ML	100 ml	Vial

TMP liquid, 1-component

TMP liquid,1-component, for biotechnology

Ready-to-use sensitive substrate for the detection of horseradish peroxidase activity. Absorbs at 450 nm (yellow end-product). Ideal for ELISA and solution assays.

Abs.@650nm 0.02
pH @25 °C ..... 5.0 - 7.0
UV/VIS Assay ..... PASS

Cat. No.	Pk	Pack type
J644-100ML	100 ml	Plastic bottle

TMP plus liquid, 1-component substrate

TMP plus liquid, 1-component substrate

Ready-to-use sensitive substrate for the detection of horseradish peroxidase activity. Absorbs at 450 nm (yellow end-product). Ideal for ELISA and solution assays. Offers faster signal, enhanced sensitivity and the lowest possible background.

Abs.@450nm (50%, 1M H_2SO_4) 0.1
Abs.@650nm (undiluted) 0.1
Assay ..... PASS
pH @25 °C (undiluted) ..... 2.6 - 3.6

Cat. No.	Pk	Pack type
K830-100ML	100 ml	Plastic bottle

o-Tolidine

4,4'-Bi-o-toluidine

Danger
H350 H302 H411
P201 P281 P273 P309+P311

CAS 119-93-7
Index 612-041-00-7
EINECS: 204-358-0
UN: 3077
ADR 9,III

Restricted to professional users.

$[-C_6H_3(CH_3)-4-NH_2]_2$
M.W. 212.29 g/mol
Density: ~ 1.234 g/cm³ (20 °C)
Boiling Pt: ~ 361 °C (1013 hPa)
Melting Pt: 129 to 131 °C
Storage Temperature: Ambient temperature

o-Tolidine TECHNICAL

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
28671.187	100 g	Plastic bottle for solids

o-Tolidine 0.1 % (1.6 M) hydrochloric solution

Danger
H350 H319 H315
P201 P281 P302+P352 P305+P351+P338 P308+P313

CAS 119-93-7
EINECS: 204-358-0
UN: 1760
ADR 8,III

Restricted to professional users.

$[-C_6H_3(CH_3)-4-NH_2]_2$
M.W. 212.29 g/mol

o-Tolidine 0.1 % (1.6 M) hydrochloric solution for chlorine determination in water according to the NF T 90-010 standard

Determination of oxygen or free chlorine

Identification ..... Passes test

Cat. No.	Pk	Pack type
28672.294	1 l	Glass bottle

o-Tolidine 0.03% with 0.2% potassium iodide in acetic acid 6%

CAS 119-93-7
EINECS: 204-358-0

$[-C_6H_3(CH_3)-4-NH_2]_2$
Storage Temperature: Ambient temperature

o-Tolidine 0.03% with 0.2% potassium iodide in acetic acid 6% Reag. Ph. Eur. 1123001

Cat. No.	Pk	Pack type
87971.260	500 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Toluene

Methylbenzene , Phenylmethane

Danger
H225 H361d H304 H373 H315 H336
P201 P210 P243 P281 P301+P331 P302+P352
P304+P340 P309+P310

CAS 108-88-3
Index 601-021-00-3
EINECS: 203-625-9
UN: 1294
ADR 3,II
Flash Pt: 4 °C

Not to be used as power or heating fuel.

$C_6H_5CH_3$
M.W. 92.14 g/mol
Density: 0.867 g/cm^3 (20 °C)
Boiling Pt: 110.6 °C (1013 hPa)
Melting Pt: -95 °C
Storage Temperature: Ambient temperature

Toluene HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Evaporation residue	Max. 5 ppm
Water	Max. 0.05 %
Transmittance (300 nm)	Min. 70 %
Transmittance (310 nm)	Min. 80 %
Transmittance (330 nm)	Min. 95 %
Transmittance (350 nm)	Min. 98 %
Conforms to BDH 15295	Passes test

Cat. No.	Pk	Pack type
83625.290	1 l	Glass bottle
83625.320	2,5 l	Glass bottle
83625.400	4 l	Glass bottle

NEW Toluene SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water	Max. 0.01 %
Transmittance (320 nm)	Min. 90 %
Transmittance (330 nm)	Min. 95 %
Transmittance (340 nm)	Min. 96 %
Transmittance (350 nm)	Min. 98 %

Cat. No.	Pk	Pack type
84708.290	1 l	Glass bottle
84708.320	2,5 l	Glass bottle

Toluene, anhydrous (max. 0.002% H_2O)

Filtered 0.2 µm filter, packaged under nitrogen

Assay (calculated on anhydrous)	Min. 99.8 %
Acidity	Max. 0.0005 meq/g
Residue on evaporation	Max. 0.0005 %
Water (K.F.)	Max. 0.002 %

Cat. No.	Pk	Pack type
83680.230	250 ml	Glass bottle with septum cap

Bottle with a septum cap featuring six separate re-sealable puncture points

Toluene PESTINORM® for pesticide residue analysis

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.7 %
Evaporation residue	Max. 5 ppm
Water	Max. 0.03 %
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l

Cat. No.	Pk	Pack type
83664.320	2,5 l	Glass bottle

Toluene AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Appearance	Clear colourless liquid	Assay (on anhydrous substance)	Min. 99.5 %
Carbonisable substances	Passes test	IR Spectrum	Passes test
Substances coloured by H_2SO_4	Passes test ACS/ISO	Acidity or alkalinity	Max. 0.0001 meq/g
Boiling point	109 to 112 °C	Colouration	Max. 10 APHA
Density (20/4)	0.865 to 0.868	Density (20/20)	0.865 to 0.870
n 20/D	1.496 to 1.498	Benzene	Max. 50 ppm
Evaporation residue	Max. 10 ppm	Thiophene	Max. 1 ppm
Total S (as SO_4)	Max. 10 ppm	Water	Max. 0.03 %
Al (Aluminium)	Max. 0.05 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.02 ppm	Ca (Calcium)	Max. 0.2 ppm
Cd (Cadmium)	Max. 0.01 ppm	Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.01 ppm	Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.1 ppm	K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.05 ppm	Mn (Manganese)	Max. 0.01 ppm
Na (Sodium)	Max. 0.5 ppm	Ni (Nickel)	Max. 0.01 ppm
Pb (Lead)	Max. 0.01 ppm	Sn (Tin)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm	Zn (Zinc)	Max. 0.01 ppm
Conforms to BDH 10284	Passes test	Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test		

Cat. No.	Pk	Pack type
28676.297	1 l	Glass bottle
28676.322	2,5 l	Glass bottle
28676.366	5 l	Fluorinated plastic bottle
28676.468	25 l	Metal drum
28676.550	200 l	Metal drum

Toluene, anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid	Colour value	Max. 10 APHA
Assay (calculated on anhydrous)	Min. 99.8 %	Residue on evaporation	Max. 0.001 %
Water (K.F.)	Max. 0.005 %	Acidity or alkalinity	Max. 0.0001 meq/g
Benzene	Max. 0.05 %	Thiophene	Max. 0.0001 %
Carbonisable substances	Passes test	Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm	Ba (Barium)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm	Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.02 ppm	Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm	Fe (Iron)	Max. 0.05 ppm
Mg (Magnesium)	Max. 0.1 ppm	Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.01 ppm	Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm	Zn (Zinc)	Max. 0.01 ppm
Total S (Sulphur)	Max. 10 ppm		

Cat. No.	Pk	Pack type
28681.295	1 l	Glass bottle

Toluene GPR RECTAPUR®

Assay	Min. 99.0 %
Appearance	Clear colourless liquid
IR Spectrum	Passes test
Density (20/4)	0.865 to 0.868
Distillation range	109 to 112 °C
Benzene	Max. 0.02 %
Evaporation residue	Max. 50 ppm
Water	Max. 0.1 %

Cat. No.	Pk	Pack type
28675.465	25 l	Metal drum
28675.556	200 l	Metal drum

Toluene GPR RECTAPUR® for pathology

Assay ..... Min. 99 %
Density (20/4) ..... 0.865 to 0.868
Distillation range ..... 109 to 112 °C
Benzene ..... Max. 0.02 %
Evaporation residue ..... Max. 50 ppm

Cat. No.	Pk	Pack type
28684.364	5 l	Fluorinated plastic bottle

Toluene TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
28701.364	5 l	Fluorinated plastic bottle
28701.466	25 l	Metal drum

Toluene-[D8]

Methylbenzene-D8 , Phenylmethane-D8

Danger
H225 H361d H304 H373 H315 H336
P201 P210 P243 P281 P301+P331 P302+P352
P304+P340 P309+P310

CAS 2037-26-5
EINECS: 218-009-5
UN: 1294
ADR 3,II
Flash Pt: 4 °C (closed cup)

Not to be used as power or heating fuel.

$C_6D_5CD_3$
M.W. 100.08 g/mol
Density: 3.054 g/cm³ (20 °C)
Boiling Pt: 110 °C (1013 hPa)
Melting Pt: -85 °C
Storage Temperature: 2 - 8°C

Toluene-[D8] (99.5% D) for NMR spectroscopy

Assay (on anhydrous substance) ..... Min. 99.9 %
Isotopic enrichment (FT NMR 400 MHz)(D) ..... Min. 99.50 %
Water (HDO+D_2O) ..... Max. 0.02 %

Cat. No.	Pk	Pack type
87159.0010	10 ml	Glass bottle
87159.0025	25 ml	Glass bottle

Toluene-α-sulphonyl fluoride

Phenylmethanesulphonyl fluoride , α-Toluenesulphonyl fluoride , PMSF , Phenylmethylsulphonyl fluoride

Danger
H301 H314
P280 P301+P330+P331 P305+P351+P338
P309+P310

CAS 329-98-6
EINECS: 206-350-2
UN: 2923
ADR 8,III

$C_7H_7FO_2S$
M.W. 174.2 g/mol
Boiling Pt: 80 to 85 °C (0.3 torr)
Melting Pt: 91 to 92 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Toluene-α-sulphonyl fluoride, high purity

An irreversible serine protease inhibitor of trypsin, chymotrypsin, kallikrein, subtilisin, and thrombin. Also inhibits the cysteine protease papain.

Identification ..... PASS
Melting Point ..... 91 - 95 °C
Purity ..... 99.0 %
Solubility (5 %, EtOH) ..... PASS
TLC ..... ONE SPOT

Cat. No.	Pk	Pack type
0754-5G	5 g	Glass bottle
0754-25G	25 g	Plastic bottle for solids

VWR CHEMICALS Toluene-α-sulphonyl fluoride, proteomics grade

An irreversible serine protease inhibitor of trypsin, chymotrypsin, kallikrein, subtilisin, and thrombin. Also inhibits the cysteine protease papain.

Identification ..... PASS
Melting Point ..... 91 - 95 °C
Purity ..... 99.0 %
Solubility (5 %, EtOH) ..... PASS
TLC ..... ONE SPOT

Cat. No.	Pk	Pack type
M145-5G	5 g	Glass bottle
M145-25G	25 g	Glass bottle

Toluidine blue O

Tolonium chloride , 3-Amino-7-(dimethylamino)-2-methyl-5-phenothiazinium chloride

CAS 92-31-9
EINECS: 202-146-2

$C_{15}H_{16}ClN_3S$
M.W. 305.83 g/mol
Storage Temperature: Ambient temperature

Toluidine blue O TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
34187.185	100 g	Glass bottle

Tosylchloramide sodium trihydrate

See Chloramine T (sodium salt) trihydrate p.104

Tragacanth

See Gum tragacanth p.208

Tragacanth gum

See Gum tragacanth p.208

D(+)-Trehalose dihydrate

CAS 6138-23-4
EINECS: 202-739-6

$C_{12}H_{22}O_{11}.2H_2O$
M.W. 378.33 g/mol
Melting Pt: 97 to 99 °C
Storage Temperature: Ambient temperature

D(+)-Trehalose dihydrate for biochemistry

Assay	Min. 98 %
Ignition residue (SO_4)	Max. 0.1 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 50 ppm
As (Arsenic)	Max. 0.1 ppm
Cd (Cadmium)	Max. 5 ppm
Co (Cobalt)	Max. 5 ppm
Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm
Ni (Nickel)	Max. 5 ppm
Pb (Lead)	Max. 5 ppm
Zn (Zinc)	Max. 5 ppm

Cat. No.	Pk	Pack type
28719.290	1 kg	Plastic bottle for solids

Triacetin (Glycerol triacetate)

Glycerol triacetate , Glyceryl triacetate

CAS 102-76-1
EINECS: 203-051-9
Flash Pt: 138 °C (closed cup)

$C_9H_{14}O_6$
M.W. 218.21 g/mol
Density: 1.1596 g/cm³ (20 °C)
Boiling Pt: 258 °C (1013 hPa)
Melting Pt: 4 °C
Storage Temperature: Ambient temperature

Triacetin (Glycerol triacetate) TECHNICAL

Assay	Min. 99 %
n 20/D	1.429 to 1.434
Water	Max. 0.2 %

Cat. No.	Pk	Pack type
24391.296	1 l	Glass bottle

Triammonium 2-hydroxypropane-1,2,3-tricarboxylate

See tri-Ammonium citrate p.32

Tribromomethane

See Bromoform p.75

Tributyl phosphate

Warning
H351 H302 H315
P201 P281 P302+P352 P309+P311

CAS 126-73-8
Index 015-014-00-2
EINECS: 204-800-2
Flash Pt: 151 °C

$(CH_3(CH_2)_3O)_3PO$
M.W. 266.32 g/mol
Density: 0.982 g/cm³ (20 °C)
Boiling Pt: 289 °C (1013 hPa)
Melting Pt: -79 °C
Storage Temperature: Ambient temperature

Tributyl phosphate TECHNICAL

n 20/D	1.424 to 1.426

Cat. No.	Pk	Pack type
28726.291	1 l	Glass bottle

Tributyrin agar

See Microbiology

Tricalcium bis(orthophosphate)

See tri-Calcium phosphate p.95

Trichloroacetic acid (glacial)

TCA

Danger
H314 H335 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 76-03-9
Index 607-004-00-7
EINECS: 200-927-2
Flash Pt: 110 °C (closed cup)

Cl_3CCOOH
M.W. 163.39 g/mol
Density: 1.63 g/cm³ (20 °C)
Boiling Pt: 196 °C (1013 hPa)
Melting Pt: 54 to 56 °C
Storage Temperature: Ambient temperature

Trichloroacetic acid (glacial) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Clarity of solution	Passes test ACS
IR Spectrum	Passes test	Substances coloured by H_2SO_4	Passes test
Melting point	Min. 57 °C	Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.03 %	Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 10 ppm	NO_3 (Nitrate)	Max. 20 ppm
PO_4 (Phosphate)	Max. 5 ppm	SO_4 (Sulphate)	Max. 0.02 %
Cu (Copper)	Max. 5 ppm	Fe (Iron)	Max. 10 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
20742.180	100 g	Plastic bottle for solids
20742.236	250 g	Plastic bottle for solids
20742.293	1 kg	Plastic bottle for solids

Trichloroacetic acid (glacial) Ph. Eur.

Assay	98.0 to 100.5 %
Appearance	Colourless crystals
Identification A	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Cl (Chloride)	Max. 100 ppm
Sulphated ash	Max. 0.1 %
Residual solvents	Passes test

Cat. No.	Pk	Pack type
20741.290	1 kg	Plastic bottle for solids

Trichloroacetic acid (glacial) GPR RECTAPUR®

Assay	Min. 98 %
Melting point	55 to 59 °C
Heavy metals (as Pb)	Max. 20 ppm
Ignition residue (SO_4)	Max. 0.1 %

Cat. No.	Pk	Pack type
20734.295	1 kg	Plastic bottle for solids
20734.460	25 kg	Bucket (Plastic)

Trichloroacetic acid (glacial) (2 - < 5%) in aqueous solution

Danger
H314 H335 H410
P280 P273 P301+P330+P331 P305+P351+P338
P309+P310

CAS 76-03-9
Index 607-004-00-7
EINECS: 200-927-2
UN: 2564
ADR 8,III

Cl_3CCOOH
Storage Temperature: Ambient temperature

NEW

Trichloroacetic acid (glacial) 4% in aqueous solution Reag. Ph. Eur.

Cat. No.	Pk	Pack type
87956.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

2,2,2-Trichloroethane-1,1-diol

See Chloral hydrate p.104

1,1,2-Trichloroethene

See Trichloroethylene p.513

Trichloroethene

See Trichloroethylene p.513

Trichloroethylene

Trichloroethene , 1,1,2-Trichloroethene , 1,1,2-Trichloroethylene

Danger
H350 H341 H319 H315 H336 H412
P201 P281 P273 P302+P352 P304+P340
P305+P351+P338 P309+P311

CAS 79-01-6
Index 602-027-00-9
EINECS: 201-167-4
UN: 1710
ADR 6.1,III

Restricted to professional users.

$ClCH=CCl_2$
M.W. 131.39 g/mol
Density: 1.46 g/cm³ (20 °C)
Boiling Pt: 86.7 °C (1013 hPa)
Melting Pt: -73 °C
Storage Temperature: Ambient temperature

Trichloroethylene AnalaR NORMAPUR® analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %	Acidity	Max. 0.0001 meq/g
Alkalinity	Max. 0.0006 meq/g	Colouration	Max. 10 APHA
Density (20/4)	1.460 to 1.470	Distillation range	86.5 to 87.5 °C
n 20/D	1.460 to 1.480	Evaporation residue	Max. 10 ppm
Free halogens	Max. 0.3 ppm	Water	Max. 100 ppm
Al (Aluminium)	Max. 0.5 ppm	B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm	Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm	Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm	Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm	Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm	Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm	Sn (Tin)	Max. 0.5 ppm
Zn (Zinc)	Max. 0.1 ppm		

Cat. No.	Pk	Pack type
28735.292	1 l	Glass bottle
28735.326	2,5 l	Glass bottle

Trichloroethylene, dehydrated (max. 0.01% H_2O) GPR RECTAPUR® for synthesis

Assay	Min. 98 %
Density (20/4)	1.460 to 1.470
Distillation range	86 to 88 °C
Evaporation residue	Max. 50 ppm
Water	Max. 100 ppm

Cat. No.	Pk	Pack type
28736.320	2,5 l	Glass bottle

Trichloroethylene GPR RECTAPUR®

Assay	Min. 97 %
IR Spectrum	Passes test
Density (20/4)	1.460 to 1.470
Evaporation residue	Max. 20 ppm
Free alkali	Max. 0.01 meq/g
n 20/D	1.46 to 1.48
Water	Max. 0.02 %
Cl (Chloride)	Max. 1 ppm
Conforms to BDH 30497	Passes test

Cat. No.	Pk	Pack type
28733.295	1 l	Glass bottle
28733.320	2,5 l	Glass bottle
28733.364	5 l	Fluorinated plastic bottle
28733.466	25 l	Metal drum

1,1,2-Trichloroethylene

See Trichloroethylene p.513

Trichloromethane

See Chloroform p.107

Trichloromethane-D1

See Chloroform-[D1] p.108

Tricine

N-(Tris(hydroxymethyl)methyl)glycine

CAS 5704-04-1
EINECS: 227-193-6

$(HOCH_2)_3CNHCH_2CO_2H$
M.W. 179.17 g/mol
Density: 1.523 g/cm³ (19.85 °C)
Melting Pt: 187 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Tricine, ultrapure

DNase ..... NONE
Identification (IR) ..... PASS
Lead ..... <0.001 %
Melting Point ..... 182 - 188 °C
pKa @25 °C ..... 8.1 - 8.2
Protease ..... NONE
Purity ..... > 99.0 %
RNase ..... NONE
Solubility (10 %, Water) ..... PASS

Cat. No.	Pk	Pack type
E170-100G	100 g	Plastic bottle for solids
E170-250G	250 g	Plastic bottle for solids
E170-500G	500 g	Plastic bottle for solids

VWR CHEMICALS Tricine, proteomics grade

DNase ..... NONE
Identification (IR) ..... PASS
Lead ..... <0.001 %
Melting Point ..... 182 - 188 °C
pKa @25 °C ..... 8.10 - 8.20
Protease ..... NONE
Purity ..... 99.0 %
RNase ..... NONE
Solubility (10 %, Water) ..... PASS

Cat. No.	Pk	Pack type
M159-500G	500 g	Plastic bottle for solids

Triethanolamine (Trolamine)

2,2',2''-Nitrilotriethanol , Tris-(2-hydroxyethyl) amine

CAS 102-71-6
EINECS: 203-049-8
Flash Pt: 179 °C (closed cup)

$C_6H_{15}NO_3$
M.W. 149.19 g/mol
Density: 1.13 g/cm³ (20 °C)
Boiling Pt: 335.4 °C (1013 hPa)
Melting Pt: 21.6 °C
Storage Temperature: Ambient temperature

Triethanolamine (Trolamine) analytical reagent

Assay ..... Min. 99.0 %
IR Spectrum ..... Passes test
Density (20/4) ..... 1.120 to 1.130
Solidification point ..... 20 to 22 °C
Diethanolamine ..... Max. 0.5 %
Ethanolamine ..... Max. 0.1 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 50 ppm
Water ..... Max. 0.2 %
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
28746.290	1 l	Glass bottle
28746.320	2,5 l	Glass bottle

Triethanolamine (Trolamine) GPR RECTAPUR®

Assay ..... Min. 97 %
Density (20/4) ..... 1.120 to 1.130
Water ..... Max. 0.5 %

Cat. No.	Pk	Pack type
28744.293	1 l	Glass bottle
28744.362	5 l	Plastic bottle

Triethanolamine (Trolamine) TECHNICAL

Assay ..... Min. 95 %

Cat. No.	Pk	Pack type
28743.290	1 l	Plastic bottle

Triethylamine

(Diethylamino)ethane , TEA

Danger
H225 H302+H312+H332 H314 H335
P210 P243 P280 P301+P330+P331 P302+P352
P304+P340 P309+P310

CAS 121-44-8
Index 612-004-00-5
EINECS: 204-469-4
UN: 1296
ADR 3,II
Flash Pt: -11 °C

$(C_2H_5)_3N$
M.W. 101.19 g/mol
Density: 0.729 g/cm³ (20 °C)
Boiling Pt: 90 °C (1013 hPa)
Melting Pt: -115 °C
Storage Temperature: Ambient temperature

Triethylamine HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance) ..... Min. 99.6 %
IR Spectrum ..... Passes test
n 20/D ..... 1.399 to 1.401
Evaporation residue ..... Max. 50 ppm
Water ..... Max. 0.2 %
Fe (Iron) ..... Max. 0.2 ppm
Pb (Lead) ..... Max. 0.02 ppm
Transmittance (254 nm) ..... Min. 20 %
Transmittance (280 nm) ..... Min. 90 %
Conforms to BDH 15329 ..... Passes test

Cat. No.	Pk	Pack type
28757.184	100 ml	Glass bottle
28757.230	250 ml	Glass bottle

Triethylamine TECHNICAL

Assay ..... Min. 99 %
n 20/D ..... 1.399 to 1.401

Cat. No.	Pk	Pack type
28745.296	1 l	Glass bottle

Trifluoroacetic acid

TFA

Danger
H332 H314 H412
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 76-05-1
Index 607-091-00-1
EINECS: 200-929-3
UN: 2699
ADR 8,I

CF_3COOH
M.W. 114.02 g/mol
Density: 1.5351 g/cm³ (20 °C)
Boiling Pt: 71.8 °C (1013 hPa)
Melting Pt: -15 °C
Storage Temperature: Ambient temperature

Trifluoroacetic acid 100% HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay	Min. 99.8 %
Colour value	Max. 10 APHA
Non-volatile matter	Max. 0.005 %
Transmittance (210 nm)	Min. 30 %
Transmittance (220 nm)	Min. 60 %
Transmittance (230 nm)	Min. 85 %
Transmittance (240 nm)	Min. 95 %
Transmittance (250 nm)	Min. 99 %

Cat. No.	Pk	Pack type
153112E	100 ml	Glass bottle SAFEBREAK

NEW Trifluoroacetic acid for peptide synthesis

Assay (calculated on anhydrous)	Min. 99.9 %
Appearance	Clear colourless liquid
Density (20/4)	1.475 to 1.500
Identification	Passes test
Residue on evaporation	Max. 0.002 %
Water	Max. 0.02 %
Absorbance (260 nm)	Max. 1
Absorbance (300 nm)	Max. 0.03

Cat. No.	Pk	Pack type
84578.290	1 l	Glass bottle

Trifluoroacetic acid 99% TECHNICAL

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20751.181	100 ml	Glass bottle
20751.261	500 ml	Glass bottle

α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine

See Trifluralin p.515

Trifluralin

N,N-Dipropyl-2,6-dinitro-4-trifluoromethylaniline , 2,6-Dinitro-N,N-dipropyl-4-trifluoromethylaniline , α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine

Warning
H351 H317 H410
P281 P273 P302+P352 P308+P313

CAS 1582-09-8
Index 609-046-00-1
EINECS: 216-428-8
UN: 2811
ADR 6.1,III
Flash Pt: 100 °C (closed cup)

$C_{13}H_{16}F_3N_3O_4$
M.W. 335.28 g/mol
Density: 1.294 g/cm³ (20 °C)
Boiling Pt: 369 °C (1013 hPa)
Melting Pt: 48 °C
Storage Temperature: Ambient temperature

Trifluralin, extra pure

Cat. No.	Pk	Pack type
124582T	10 mg	Glass ampoule

1,2,3-Trihydroxybenzene

See Pyrogallol p.400

Triiron tetraoxide

See Iron (II,III) oxide p.251

Trilead bis(carbonate) dihydroxide

See Lead (II) carbonate basic p.264

(±)-3,5,5-Trimethyl-1-hexanol

Warning
H373 H319 H315 H411
P280 P273 P302+P352 P305+P351+P338 P314

CAS 3452-97-9
EINECS: 222-376-7
UN: 3082
ADR 9,III
Flash Pt: 80 °C (closed cup)

$(CH_3)_3CCH_2CH(CH_3)CH_2CH_2OH$
M.W. 144.26 g/mol
Density: 0.83 g/cm³ (20 °C)
Boiling Pt: 193 to 194 °C (1013 hPa)
Melting Pt: -70 °C
Storage Temperature: Ambient temperature

(±)-3,5,5-Trimethyl-1-hexanol TECHNICAL

IR Spectrum	Passes test
Density (20/4)	0.828 to 0.831

Cat. No.	Pk	Pack type
262134R	500 ml	Glass bottle

Trimethylcarbinol

See tert-Butanol p.87

2,2,4-Trimethylpentane

Isooctane

Danger
H225 H304 H315 H336 H410
P210 P243 P280 P273 P301+P331 P302+P352
P304+P340 P309+P310

CAS 540-84-1
Index 601-009-00-8
EINECS: 208-759-1
UN: 1262
ADR 3,II
Flash Pt: -12 °C

Not to be used as power or heating fuel.

$(CH_3)_2CHCH_2C(CH_3)_3$
M.W. 114.23 g/mol
Density: 0.692 g/cm³ (20 °C)
Boiling Pt: 99.2 °C (1013 hPa)
Melting Pt: -107 °C
Storage Temperature: Ambient temperature

2,2,4-Trimethylpentane HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Assay (GC)	Min. 99.5 %
Water	Max. 0.01 %
Non-volatile residue	Max. 0.0005 %
Acidity	Max. 0.0005 meq/g
Alkalinity	Max. 0.0002 meq/g
Transmittance (220 nm)	Min. 70 %
Transmittance (235 nm)	Min. 80 %
Transmittance (255 nm)	Min. 98 %
Conforms to BDH 15246	Passes test

Cat. No.	Pk	Pack type
83630.290	1 l	Glass bottle
83630.320	2,5 l	Glass bottle

2,2,4-Trimethylpentane SPECTRONORM® for spectroscopy

Filtered 0.2 µm filter, packaged under nitrogen

Assay (on anhydrous substance)	Min. 99.5 %
Colouration	Max. 10 APHA
Density (20/4)	0.690 to 0.695
n 20/D	1.390 to 1.392
Water	Max. 0.02 %
Transmittance (210 nm)	Min. 45 %
Transmittance (220 nm)	Min. 73 %
Transmittance (230 nm)	Min. 85 %
Transmittance (240 nm)	Min. 92 %
Transmittance (from 255 nm)	Min. 98 %

Cat. No.	Pk	Pack type
28776.293	1 l	Glass bottle
28776.320	2,5 l	Glass bottle

2,2,4-Trimethylpentane AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (on anhydrous substance)	Min. 99.5 %
Acidity	Max. 0.0003 meq/g
Colouration	Max. 10 APHA
Density (20/20)	0.691 to 0.696
Substances discoloured by H_2SO_4	Max. 35 APHA
Total S (as SO_4)	Max. 10 ppm
Al (Aluminium)	Max. 0.5 ppm
Ba (Barium)	Max. 0.1 ppm
Cd (Cadmium)	Max. 0.05 ppm
Cr (Chromium)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Na (Sodium)	Max. 0.5 ppm
Pb (Lead)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.05 ppm
Conforms to BDH 10359	Passes test
Conforms to Reag. Ph.Eur.	Passes test
IR Spectrum	Passes test
Boiling point	99 to 100 °C
Density (20/4)	0.690 to 0.695
n 20/D	1.391 to 1.393
Evaporation residue	Max. 10 ppm
Water	Max. 100 ppm
B (Boron)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.5 ppm
Co (Cobalt)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm
K (Potassium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm
Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm
Conforms to ACS	Passes test

Cat. No.	Pk	Pack type
28781.291	1 l	Glass bottle
28781.325	2,5 l	Glass bottle
28781.460	25 l	Metal drum

2,2,4-Trimethylpentane, dehydrated (max. 0.01% H_2O) GPR RECTAPUR® for synthesis

Assay	Min. 99 %
IR Spectrum	Passes test
Density (20/4)	0.690 to 0.695
Free acidity	Max. 0.0004 meq/g
Evaporation residue	Max. 50 ppm
Water	Max. 100 ppm
Conforms to BDH 30518	Passes test

Cat. No.	Pk	Pack type
28780.322	2,5 l	Glass bottle
28780.366	5 l	Metal can

2,2,4-Trimethylpentane TECHNICAL

Assay	Min. 98 %
n 20/D	1.391 to 1.393

Cat. No.	Pk	Pack type
28775.290	1 l	Glass bottle
28775.368	5 l	Metal can
28775.461	25 l	Metal drum

2,4,4-Trimethylpentene

Diisobutylene

Danger
H225 H304 H411
P210 P280 P273 P301+P310 P331

CAS 25167-70-8
EINECS: 246-690-9
UN: 2050
ADR 3,II
Flash Pt: -6 °C

$(CH_3)_3CCH_2C(CH_3)=CH_2+(CH_3)_3CCH=C(CH_3)_2$
M.W. 112.22 g/mol
Density: 0.71 g/cm³ (20 °C)
Boiling Pt: 101 to 102 °C (1013 hPa)
Melting Pt: -106 °C
Storage Temperature: Ambient temperature

2,4,4-Trimethylpentene TECHNICAL

Assay	Min. 90 %

Cat. No.	Pk	Pack type
23416.263	500 ml	Glass bottle

1,3,7-Trimethylxanthine

See Caffeine p.90

N8,N8,3-Trimethyl-2,8-phenazinediamine monohydrochloride

See Neutral red p.320

2,3,5-Triphenyltetrazolium chloride

TTC , Tetrazolium salt

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 298-96-4
EINECS: 206-071-6

$C_{19}H_{15}ClN_4$
M.W. 334.81 g/mol
Boiling Pt: Min. 360 °C (1013 hPa)
Melting Pt: 235 °C
Storage Temperature: 2 - 8°C

VWR CHEMICALS 2,3,5-Triphenyltetrazolium chloride, reagent grade

Melting Range ..... 235 °C
Purity ..... 98.0 %

Cat. No.	Pk	Pack type
0765-25G	25 g	Glass bottle
0765-100G	100 g	Glass bottle

2,3,5-Triphenyltetrazolium chloride TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
28804.121	10 g	Plastic bottle for solids

NEW 2,3,5-Triphenyltetrazolium chloride 1% in aqueous solution, sterile

Cat. No.	Pk	Pack type
301950ZK	100 ml	Plastic bottle

Tripotassium hexacyanoferrate

See Potassium hexacyanoferrate (III) p.378

Tripotassium 2-hydroxypropane-1,2,3-tricarboxylate monohydrate

See tri-Potassium citrate monohydrate p.373

TRIS

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

Tris acetate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 6850-28-8
EINECS: 229-939-6

$NH_2C(CH_2OH)_3 \cdot CH_3COOH$
Storage Temperature: Ambient temperature

VWR CHEMICALS Tris acetate, high purity

Heavy Metals ..... 0.001 %
Moisture ..... 0.3 %
pH (0.1 M, Water) @25 °C ..... 6.0 - 7.0
Purity ..... 98.0 %
Residue on Ignition ..... 0.1 %

Cat. No.	Pk	Pack type
0189-100G	100 g	Plastic bottle

TRIS base

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

TRIS buffer solution

CAS 77-86-1
EINECS: 201-064-4

$C_4H_{11}NO_3$
Storage Temperature: Ambient temperature

VWR CHEMICALS TRIS buffer solution pH 6.8 (0.5 mol/l) for biotechnology

Conductivity @25 °C ..... 24.5 - 33.5 mmhos
pH @25 °C ..... 6.7 - 6.9
Purity ..... 0.47 - 0.53 M
Reassay Date ..... REPORT

Cat. No.	Pk	Pack type
J832-500ML	500 ml	Plastic bottle

VWR CHEMICALS TRIS buffer solution pH 7.4 (0.1 mol/l) for biotechnology

DNase ..... NONE
pH @25 °C ..... 7.3 - 7.5
Sterility ..... PASS

Cat. No.	Pk	Pack type
E553-100ML	100 ml	Plastic bottle
E553-500ML	500 ml	Plastic bottle

VWR CHEMICALS TRIS buffer solution pH 7.5 (1 mol/l), ultrapure

DNase ..... NONE
pH@25 °C ..... 7.4 - 7.6
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS
Tris ..... 0.9 - 1.1 M

Cat. No.	Pk	Pack type
E691-500ML	500 ml	Plastic bottle

VWR CHEMICALS TRIS buffer solution pH 7.5 (2 mol/l)

Conductivity (1:10) @25 °C ..... 9.0 - 14.0 ms
pH @25 °C ..... 7.4 - 7.6
Reassay Date ..... REPORT

Cat. No.	Pk	Pack type
J838-1L	1 l	Plastic bottle

VWR CHEMICALS TRIS buffer solution pH 7.8 (2 mol/l) for biotechnology

DNase ..... NONE
pH @25 °C ..... 7.7 - 7.9
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
J837-500ML	500 ml	Plastic bottle

TRIS buffer solution pH 8 (1 mol/l) for biotechnology

Conductivity ..... REPORT
DNase ..... NONE
pH @25 °C ..... 7.9 - 8.1
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS

Cat. No.	Pk	Pack type
E199-100ML	100 ml	Plastic bottle
E199-500ML	500 ml	Plastic bottle

TRIS buffer solution pH 8.8 (1.5 mol/l) for biotechnology

Conductivity @25 °C ..... REPORT
pH @25 °C ..... 8.7 - 8.9
Purity ..... 16.96 - 19.38 %
Reassay Date ..... REPORT

Cat. No.	Pk	Pack type
J831-500ML	500 ml	Plastic bottle

TRIS buffer solution pH 8.8 (1.5 mol/l), proteomics grade

Conductivity @25 °C ..... REPORT
pH @25 °C ..... 8.7 - 8.9
Protease ..... NONE
Purity ..... 16.96 - 19.38 %
Reassay Date ..... REPORT

Cat. No.	Pk	Pack type
M195-500ML	500 ml	Plastic bottle

TRIS buffer solution pH 9 (1 mol/l), ultrapure

DNase ..... NONE
pH @25 °C ..... 8.9 - 9.1
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS
Tris ..... 0.9 - 1.1 M

Cat. No.	Pk	Pack type
E694-250ML	250 ml	Plastic bottle

TRIS buffer solution pH 10 (1 mol/l), ultrapure

DNase ..... NONE
pH @25 °C ..... 9.9 - 10.1
Protease ..... NONE
RNase ..... NONE
Sterility ..... PASS
Tris ..... 0.9 - 1.1 M

Cat. No.	Pk	Pack type
E698-250ML	250 ml	Plastic bottle

TRIS-EDTA buffer pH 7.0

TRIS-EDTA buffer pH 7.0 for biotechnology

Abs.@280nm 0.05
Bacterial Contamination ..... NONE
Conductivity @25 °C ..... 1050 - 1300 uhmos
DNase ..... NONE
pH @25 °C ..... 6.90 - 7.10
RNase ..... NONE

Cat. No.	Pk	Pack type
N634-50ML	50 ml	Plastic bottle

TRIS-glycine buffer solid for 10x concentrated solution

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P30
9+P311
Storage Temperature: Ambient temperature

TRIS-glycine buffer, solid, for 10x concentrated solution, ultrapure

A pre-blended Tris-glycine powder for preparation of Laemmli SDS-PAGE running buffer. The 40 l pack size prepares 40 litres of 1x Tris-glycine solution (0.025 M Tris base and 0.192 M glycine). Each Ready-Pack™ prepares 1 litre of a 10x concentrate.

pH (1.757 %, Water) @25 °C ..... REPORT

Cat. No.	Pk	Pack type
0251-2PK	2	Plastic bag
0251-40L	40 l	Plastic bottle for solids

TRIS-glycine buffer, solid, for 10x concentrated solution, proteomics grade

A pre-blended Tris-glycine powder for preparation of Laemmli SDS-PAGE running buffer. The 40 l pack size prepares 40 litres of 1X Tris-glycine solution (0.025 M Tris base and 0.192 M glycine). Each Ready-Pack™ prepares 1 litre of a 10x concentrate.

pH (1.757 %, Water) @25 °C ..... REPORT
Protease ..... NONE

Cat. No.	Pk	Pack type
M115-2PK	2	Plastic bag
M115-40L	40 l	Plastic bottle for solids

TRIS-glycine buffer solution 10x concentrate (TG buffer)

Storage Temperature: Ambient temperature

TRIS-glycine buffer solution 10x concentrate (TG buffer), ultrapure

A 1X working solution contains 0.025 M Tris base and 0.192 M glycine.

pH (1X, Water) @25 °C ..... 8.3 - 8.7
Solubility (1X, Water) ..... PASS

Cat. No.	Pk	Pack type
0307-1L	1 l	Plastic bottle for solids
0307-4L	4 l	Bag-in-box (Cubitainer)

TRIS-glycine buffer solution 10x concentrate (TG buffer), proteomics grade

A 1X working solution contains 0.025 M Tris base and 0.192 M glycine.

DNase ..... NONE
pH (1X, Water) @25 °C ..... 8.3 - 8.7
Protease ..... NONE
RNase ..... NONE
Solubility (1X, Water) ..... PASS

Cat. No.	Pk	Pack type
M114-1L	1 l	Plastic bottle
M114-4L	4 l	Bag-in-box (Cubitainer)

TRIS-glycine-SDS buffer solid for 10x concentrated solution

Storage Temperature: Ambient temperature

TRIS-glycine-SDS buffer, solid, for 10x concentrated solution, ultrapure

Running buffer for Laemmli SDS-PAGE. The 40 l pack size includes sufficient powder to prepare 40 litres of a 1X solution (0.025 M Tris, 0.192 M glycine and 0.1% sodium dodecyl sulphate). Ready-Pack™ prepares 1 litre of a 10X solution.

pH (5X dilution of reconstituted buffer) ..... 8.1 - 8.6

Cat. No.	Pk	Pack type
0147-2PK	2	Plastic bag
0147-40L	40 l	Plastic bottle for solids

TRIS-glycine-SDS buffer, solid, for 10x concentrated solution, powder, proteomics grade

Each pack makes 1 l of 10X concentrate. 40 l size contains sufficient dry powder to prepare 40 l of 1X buffer. 1X solution contains: 0.025 M Tris, 0.192 M glycine, and 0.1% SDS.

DNase ..... NONE
Electrophoresis ..... PASS
pH (5X dilution of reconstituted buffer) ..... 8.1 - 8.5
Protease ..... NONE
RNase ..... NONE

Cat. No.	Pk	Pack type
M149-40L	40 l	Plastic bottle for solids

TRIS-glycine-SDS buffer solution 10x concentrate (TGS buffer)

Storage Temperature: Ambient temperature

TRIS-glycine-SDS buffer solution 10x concentrate (TGS buffer), ultrapure

Liquid concentrate used for protein electrophoresis to maintain pH and temperature of the environment as well as provide ions that carry electrical current.

pH (1X, Water) @25 °C ..... 8.30 - 8.70
Solubility (1X, Water) ..... PASS

Cat. No.	Pk	Pack type
0783-1L	1 l	Plastic bottle
0783-4L	4 l	Bag-in-box (Cubitainer)

TRIS-glycine-SDS buffer solution 10x concentrate (TGS buffer), proteomics grade

A single strength (1X) solution contains 0.025 M Tris base, 0.192 M Glycine, and 0.1 % sodium dodecyl sulphate. In the 4 l pack size, there is sufficient concentrate to prepare 40 l of 1X TG-SDS buffer.

DNase ..... NONE
pH (1X, Water) @25 °C ..... 8.30 - 8.70
Protease ..... NONE
RNase ..... NONE
Solubility (1X, Water) ..... PASS

Cat. No.	Pk	Pack type
M148-4L	4 l	Bag-in-box (Cubitainer)

TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride)

TRIS HCl , THAM HCl , Tris(hydroxymethyl) methylamine hydrochloride , Trometamol hydrochloride , Tris(hydroxymethyl) aminomethane hydrochloride , 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride , Tris(hydroxymethyl)methylammonium chloride

CAS 1185-53-1
EINECS: 214-684-5

$NH_2C(CH_2OH)_3 \cdot HCl$
M.W. 157.6 g/mol
Melting Pt: 150 to 152 °C
Storage Temperature: Ambient temperature

TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) Electran® for electrophoresis

Assay ..... Min. 99 %
Appearance ..... White crystalline powder
Identity (IR) ..... Passes test
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
pH (0.5 mol/l) ..... 3.5 to 5
Absorbance (230 nm) (10 %) ..... Max. 0.1
Absorbance (260 nm) (1 mol/l) ..... Max. 0.06
Absorbance (280 nm) (1 mol/l) ..... Max. 0.05
Absorbance (300 nm) (10 %) ..... Max. 0.02
Absorbance (405 nm) (10 %) ..... Max. 0.004
Sulphated ash ..... Max. 0.03 %
Water ..... Max. 0.5 %
As (Arsenic) ..... Max. 0.0001 %
Ba (Barium) ..... Max. 0.0001 %
Cd (Cadmium) ..... Max. 0.0001 %
Cu (Copper) ..... Max. 0.0001 %
Fe (Iron) ..... Max. 0.0003 %
Mn (Manganese) ..... Max. 0.0001 %
Pb (Lead) ..... Max. 0.0002 %
Zn (Zinc) ..... Max. 0.0002 %

Cat. No.	Pk	Pack type
441514A	500 g	Plastic bottle

TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride), ultrapure

Reagent for stabilization of buffer formulations and electrophoresis of biological molecules.

Calcium ..... < 0.0001 %
Copper ..... <0.0001 %
DNase ..... NONE
Insolubles ..... 0.001 %
Iron ..... < 0.001 %
Lead ..... < 0.0001 %
Magnesium ..... < 0.0001 %
Manganese ..... < 0.0001 %
pH (0.1M, Water) @25 °C ..... 4.2 - 4.9
Protease ..... NONE
Purity (Titration) ..... 99.5 %
Reassay Date ..... REPORT
RNase ..... NONE
Zinc ..... < 0.0001 %

Cat. No.	Pk	Pack type
0234-500G	500 g	Plastic bottle for solids
0234-1KG	1 kg	Plastic bottle for solids
0234-5KG	5 kg	Bucket (Plastic)
0234-12KG	12 kg	Bucket (Plastic)

TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride), proteomics grade

Calcium ..... < 0.0001 %
Copper ..... <0.0001 %
DNase ..... NONE
Electrophoresis ..... PASS
Insolubles ..... 0.001 %
Iron ..... < 0.001 %
Lead ..... < 0.0001 %
Magnesium ..... < 0.0001 %
Manganese ..... < 0.0001 %
pH (0.1M, Water) @25 °C ..... 4.2 - 4.9
Protease ..... NONE
Purity ..... 99.5 %
RNase ..... NONE
Zinc ..... < 0.0001 %

Cat. No.	Pk	Pack type
M108-500G	500 g	Plastic bottle for solids
M108-1KG	1 kg	Plastic bottle for solids

TRIS HCl

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

TRIS-tricine buffer solid for 10x concentrated solution

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338 P30
9+P311
Storage Temperature: Ambient temperature

TRIS-tricine buffer solution 10x concentrate, proteomics grade

A 1X solution contains 100 mM TRIS and 100 mM tricine.

Conductivity (1X concentration) ..... 2000 - 2200 umhos
pH (1X concentration) @25 °C ..... 8.1 - 8.3
Protease ..... NONE

Cat. No.	Pk	Pack type
M170-1L	1 l	Plastic bottle

TRIS-tricine buffer, solid, for 10x concentrated solution, proteomics grade

A 1X solution contains 100 mM Tris and 100 mM Tricine. Sufficient material to prepare 1 l of a 10X solution.

Conductivity (1X Concentration) @25 °C ..... 900 - 1100 umhos
pH (1X Concentration) @25 °C ..... 8.1 - 8.5
Protease ..... NONE

Cat. No.	Pk	Pack type
M171-1PK	1	Plastic bag

TRIS-tricine-SDS buffer solution 10x concentrate

Storage Temperature: Ambient temperature

TRIS-tricine-SDS buffer solution 10x concentrate, ultrapure

Conductivity ..... REPORT
pH (1X concentration) @25 °C ..... 8.1 - 8.5

Cat. No.	Pk	Pack type
E449-1L	1 l	Plastic bottle

Tris-(2-hydroxyethyl)amine

See Triethanolamine (Trolamine) p.514

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol)

2-Amino-2-(hydroxymethyl)-1,3-propanediol
, THAM , Tris(hydroxymethyl)methylamine ,
TRIS base

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 77-86-1
EINECS: 201-064-4

$NH_2C(CH_2OH)_3$
M.W. 121.14 g/mol
Density: 1.328 g/cm³ (20 °C)
Boiling Pt: 357 °C (1013 hPa)
Melting Pt: 169 to 172 °C
Storage Temperature: Ambient temperature

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) AnalaR NORMAPUR® analytical reagent

Assay (calculated on anhydrous) ... 99.8 to 100.5 %
Identification ..... Passes test
Ignition residue (SO_4) ..... Max. 100 ppm
Water ..... Max. 0.1 %
SO_4 (Sulphate) ..... Max. 5 ppm
Ca (Calcium) ..... Max. 1 ppm
Cu (Copper) ..... Max. 0.1 ppm
K (Potassium) ..... Max. 0.3 ppm
Na (Sodium) ..... Max. 5 ppm
Absorbance (280 nm) (0.5 mol/l) ..... Max. 0.05
Appearance ..... White crystalline powder
Heavy metals (as Pb) ..... Max. 5 ppm
Insolubility in water ..... Max. 30 ppm
Cl (Chloride) ..... Max. 5 ppm
As (Arsenic) ..... Max. 0.2 ppm
Cd (Cadmium) ..... Max. 0.1 ppm
Fe (Iron) ..... Max. 0.2 ppm
Mg (Magnesium) ..... Max. 0.3 ppm
Pb (Lead) ..... Max. 0.1 ppm

Cat. No.	Pk	Pack type
103154M	250 g	Plastic bottle for solids
103156X	1 kg	Plastic bottle for solids
103157P	5 kg	Bucket (Plastic)
10315AC	20 kg	Plastic drum

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) buffer substance, for analysis and biochemical purposes

Assay (calculated on dried substance) ..... Min. 99.9 %
Colouration (20 %; water) ..... Max. 20 APHA
Melting point ..... Min. 170 °C
pH (20 °C; 5 %) ..... 10.0 to 11.5
Heavy metals (as Pb) ..... Max. 1 ppm
Insolubility in water ..... Max. 50 ppm
Water ..... Max. 0.2 %
Absorbance (260 nm) (1 mol/l) ..... Max. 0.03
Absorbance (280 nm) (1 mol/l) ..... Max. 0.03
Absorbance (430 nm) (1 mol/l) ..... Max. 0.004

Cat. No.	Pk	Pack type
28808.294	1 kg	Plastic bottle for solids
28808.440	20 kg	Plastic drum

NEW Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Ph. Eur., USP

Assay (calculated on dried substance) ..... 99.0 to 100.5 %
Appearance ..... Colourless crystals
Identification A ..... Passes test USP
Identification B ..... Passes test USP
Identification B ..... Passes test Ph.Eur.
Identification C ..... Passes test USP
Identification C ..... Passes test Ph.Eur.
Solution S ..... Passes test Ph.Eur.
Appearance of solution ..... Passes test Ph.Eur.
Melting point ..... 168 to 172 °C
pH of solution S ..... 10.0 to 11.5
Related substances ..... Passes test Ph.Eur.
Cl (Chloride) ..... Max. 100 ppm
Heavy metals [USP] ..... Max. 0.001 %
Heavy metals (as Pb) ..... Max. 10 ppm
Fe (Iron) ..... Max. 10 ppm
Loss on drying (105 °C) ..... Max. 0.5 %
Sulphated ash ..... Max. 0.1 %
Organic volatile impurities ..... Passes test Ph.Eur./USP
Residual solvents Class 2 (ICH Q3C) .....
Methanol ..... Below option 1 limit
Other residual solvents(Ph.Eur./ICH) ..... Unlikely by manuf.process

Cat. No.	Pk	Pack type
87020.290	1 kg	Plastic bottle for solids
87020.360	5 kg	Bucket (Plastic)
87020.460	25 kg	Bucket (Plastic)

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) GPR RECTAPUR®

Assay ..... Min. 99 %
Melting point ..... 169 to 172 °C
Ignition residue (SO_4) ..... Max. 0.2 %

Cat. No.	Pk	Pack type
28811.295	1 kg	Plastic bottle for solids
28811.364	5 kg	Bucket (Plastic)
28811.460	20 kg	Plastic drum

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Gen-Apex® Molecular biology grade

Assay ..... Min. 99 %
Colouration (0.5 mol/l; water) ..... Max. 10 APHA
Heavy metals (as Pb) ..... Max. 10 ppm
Transmittance (230 nm) (0.5 mol/l) ..... Min. 45 %
Transmittance (260 nm) (0.5 mol/l) ..... Min. 75 %
Transmittance (280 nm) (0.5 mol/l) ..... Min. 80 %
Transmittance (320 nm) (0.5 mol/l) ..... Min. 90 %

Cat. No.	Pk	Pack type
33621.260	500 g	Plastic bottle for solids

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) Electran® for electrophoresis

Assay ..... Min. 99 %
Appearance ..... White crystalline powder
Identity (IR) ..... Passes test
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Absorbance (260 nm) (10 %) ..... Max. 0.03
Absorbance (280 nm) (10 %) ..... Max. 0.02
pH (20°C; 1 mol/l) ..... 10.5 to 11.5
Heavy metals (as Pb) ..... Max. 0.005 %
Water ..... Max. 0.3 %
Cu (Copper) ..... Max. 0.0001 %
Fe (Iron) ..... Max. 0.0001 %
Pb (Lead) ..... Max. 0.0001 %

Cat. No.	Pk	Pack type
443864E	500 g	Plastic bottle
443866G	2,5 kg	Plastic bottle

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol), ultrapure

Reagent for stabilization of buffer formulations and electrophoresis of biological molecules.

Abs.@280 nm (1M, Water) 0.05
Abs.@290 nm (40%, Water) 0.2
Abs.@400 nm (40%, Water) 0.05
Arsenic ..... <0.0005 %
Copper ..... < 0.0001 %
Identification ..... PASS
Insolubles ..... 0.005 %
Iron ..... < 0.0001 %
Lead ..... < 0.0001 %
Magnesium ..... < 0.0005 %
Melting Point ..... 168 - 172 °C
Moisture (KF) ..... 1.0 %
pH (5%, Water) @25 °C ..... 10.0 - 11.5
Purity ..... 99.9 %
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
0497-500G	500 g	Plastic bottle for solids
0497-1KG	1 kg	Plastic bottle for solids
0497-5KG	5 kg	Bucket (Plastic)
0497-10KG	10 kg	Bucket (Plastic)
0497-12KG	12 kg	Bucket (Plastic)
0497-50KG	50 kg	Plastic drum

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol), proteomics grade

Reagent for stabilization of buffer formulations and electrophoresis of biological molecules.

Abs.@280 nm (1M, Water) 0.05
Arsenic ..... <0.0005 %
Copper ..... <0.0001 %
DNase ..... NONE
Insolubles ..... 0.005 %
Iron ..... < 0.0001 %
Lead ..... < 0.0001 %
Loss on Drying ..... 1.0 %
Magnesium ..... 0.0005 %
Protease ..... NONE
Purity ..... 99.8 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
M151-500G	500 g	Plastic bottle for solids
M151-1KG	1 kg	Plastic bottle for solids

Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) for biotechnology

Reagent for stabilization of buffer formulations and electrophoresis of biological molecules.

Abs.@280 nm (1M, Water) 0.05
Arsenic ..... <0.0005 %
Copper ..... <0.0001 %
DNase ..... NONE
Insolubles ..... 0.005 %
Iron ..... < 0.0001 %
Lead ..... < 0.0001 %
Loss on Drying ..... 1.0 %
Magnesium ..... 0.0005 %
Protease ..... NONE
Purity ..... 99.8 %
RNase ..... NONE
Solubility (10%, Water) ..... PASS

Cat. No.	Pk	Pack type
0826-500G	500 g	Plastic bottle for solids
0826-1KG	1 kg	Plastic bottle for solids
0826-5KG	5 kg	Bucket (Plastic)

Tris(hydroxymethyl)methylamine hydrochloride

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

Tris(hydroxymethyl)methylamine

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

Tris(hydroxymethyl)methylammonium chloride

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

Trisodium orthophosphate dodecahydrate

See tri-Sodium phosphate dodecahydrate p.454

Triton® X-100 (Polyethylene glycol tert-octylphenyl ether)

Danger
H302 H318 H411
P280 P273 P305+P351+P338 P309+P310

CAS 9002-93-1
UN: 3082
ADR 9,III
Flash Pt: 251 °C (closed cup)
Density: 1.06 g/cm³ (20 °C)
Boiling Pt: Min. 200 °C (1013 hPa)
Melting Pt: 6 °C
Storage Temperature: 2 - 8°C

Triton® X-100 (Polyethylene glycol tert-octylphenyl ether), proteomics grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Cloud Point ..... REPORT
Colour (APHA) 100
Peroxides ..... NONE
pH (5 %, Water) @25 °C ..... 6.0 - 8.0
Protease ..... NONE

Cat. No.	Pk	Pack type
M143-1L	1 l	Plastic bottle
M143-4L	4 l	Bag-in-box (Cubitainer)

Triton® X-100 (Polyethylene glycol tert-octylphenyl ether), reagent grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Cloud Point ..... REPORT
Colour (APHA) 100
Peroxides ..... NONE
pH (5 %, Water) @25 °C ..... 6.0 - 8.0

Cat. No.	Pk	Pack type
0694-1L	1 l	Plastic bottle
0694-4L	4 l	Bag-in-box (Cubitainer)

Triton® X-100 (Polyethylene glycol tert-octylphenyl ether) Molecular biology grade

Biodegradable non-ionic surfactant, suitable for use in molecular biology applications.

Assay ..... Min. 98 %
Appearance ..... Clear viscous liquid
Identity (IR) ..... Passes test
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Density (20/4) ..... 1.064 to 1.067
pH (1 %) ..... 6 to 8
Water ..... Max. 1 %
Heavy metals (as Pb) ..... Max. 0.0005 %
SO_4 (Sulphate) ..... Max. 0.005 %
Cl (Chloride) ..... Max. 0.005 %

Cat. No.	Pk	Pack type
437002A	50 ml	Glass bottle for solids

Triton® is a registered trade mark of Union Carbide

Triton® X-100 (Polyethylene glycol tert-octylphenyl ether) TECHNICAL

n 20/D ..... 1.489 to 1.491

Cat. No.	Pk	Pack type
28817.295	1 l	Plastic bottle

Triton® X-100 10% aqueous solution

Danger
H318 H412
P280 P273 P305+P351+P338 P309+P310

CAS 9002-93-1
Density: ~ 1.01 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)
Storage Temperature: Ambient temperature

Triton® X-100 10% aqueous solution, proteomics grade

Contains 5×10 ml vials of a 10% solution.

Colour (APHA) 100
Peroxides ..... NONE
pH (50 %, Water) @25 °C ..... 6.0 - 8.0
Protease ..... NONE

Cat. No.	Pk	Pack type
M236-10ML-5PK	1 KIT	Glass ampoule

Triton® X-114 (Polyethylene glycol tert-octylphenyl ether)

Danger
H318
P280 P305+P351+P338 P309+P310

CAS 9036-19-5
UN: 3082
ADR 9,III
Flash Pt: Min. 93 °C
Density: 1.055 g/cm³ (20 °C)
Boiling Pt: Min. 150 °C (1013 hPa)
Storage Temperature: Ambient temperature

Triton® X-114 (Polyethylene glycol tert-octylphenyl ether), proteomics grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Cloud Point (1 %, Water) ..... 22 - 28 °C
Colour (APHA) ..... < 100
Index of Refraction ..... 1.48 - 1.50

Cat. No.	Pk	Pack type
M144-1L	1 l	Plastic bottle

Triton® X-405 (Polyethylene glycol tert-octylphenyl ether)

CAS 26636-32-8
Density: 1.05 g/cm³ (20 °C)
Boiling Pt: 120 °C (1013 hPa)
Melting Pt: -4 °C
Storage Temperature: Ambient temperature

Triton® X-405 (Polyethylene glycol tert-octylphenyl ether), reagent grade

Colour (APHA) ..... < 250
pH (5 %, Water) @25 °C ..... 6.0 - 8.0
Solubility (5 %, Water) ..... PASS

Cat. No.	Pk	Pack type
0471-100ML	100 ml	Plastic bottle for solids
0471-500ML	500 ml	Plastic bottle for solids

Trolamine

See Triethanolamine (Trolamine) p.514

Trometamol hydrochloride

See TRIS HCl (Tris-(hydroxymethyl) aminomethane hydrochloride) p.519

Trometamol

See Tris(hydroxymethyl)aminomethane (TRIS, Trometamol) p.520

Trp

See L(-)-Tryptophan p.523

Trypan Blue in aqueous solution

CAS 72-57-1
EINECS: 200-786-7

$C_{34}H_{24}N_6Na_4O_{14}S_4$

Trypan Blue 4 g/l in aqueous solution Cell Culture Reagent

A dye used in cell culture applications to determine cell viability.

Abs.@ Lambda Max (1:100, Water) ..... 1.0000 - 1.3000
Lambda Max (1:100, Water) ..... 585 - 595 nm

Cat. No.	Pk	Pack type
K940-100ML	100 ml	Plastic bottle

Trypsin

Danger
H319 H335 H315 H334
P280 P285 P305+P351+P338 P309+P311

CAS 9002-07-7
Index 647-010-00-7
EINECS: 232-650-8
Storage Temperature: 2 - 8°C

Trypsin, 2.500 U/mg, crystals, proteomics grade

From bovine pancreas.

Chymotrypsin ..... 50 U/mg
Loss on Drying ..... 5.0 %
Microbial Limits ..... PASS
Residue after Ignition ..... 2.5 %
Solubility (2 %, Water) ..... PASS
Trypsin ..... 2500 U/mg

Cat. No.	Pk	Pack type
M150-1G	1 g	Glass bottle

Trypsin, 2.500 U/mg USP

From bovine pancreas.

Chymotrypsin ..... 50 U/mg
Loss on Drying ..... 5.0 %
Microbial Limits ..... PASS
Residue after Ignition ..... 2.5 %
Solubility ..... PASS
Trypsin ..... 2500 U/mg

Cat. No.	Pk	Pack type
0785-1G	1 g	Glass bottle
0785-5G	5 g	Glass bottle

Product is tested to USP specifications

Trypsin (from Bovine Pancreas)

(formerly EC 3.4.4.4)

Contains about 85% lactose as diluent; activity about 0.5 Anson units per g (calculated as at 35.5 °C). 1 Anson unit is that which hydrolyses urea denatured haemoglobin at such an initial rate under the specified conditions (25 °C) that the hydrolysis products formed per minute give the same absorbance with the Folin and Ciocalteu's reagent as 1 millimole of tyrosine. (Based on Anson, M.L., J. Gen. Physiol., 1938, 22, 79)
For *in-vitro* laboratory use only.

Activity (Anson units/g) ..... About 0.5

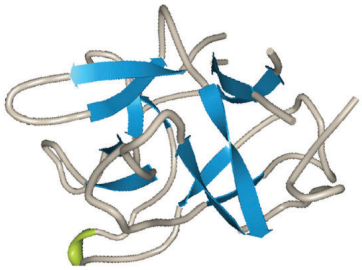
Cat. No.	Pk	Pack type
390414M	250 g	Plastic bottle
39041CU	5 kg	Plastic bottle

Trypsin inhibitor

Danger
H334 H317
P280 P302+P352 P304+P340 P305+P351+P338

CAS 9035-81-8
EINECS: 232-906-9
Storage Temperature: -20°C

Trypsin inhibitor (from Soy Bean), proteomics grade



Structure of the Kunitz-type soybean trypsin inhibitor (STI): implication for the interactions between members of the STI family and tissue-plasminogen activator. PDB 1BA7. De Meester, P., Brick, P., Lloyd, L.F., Blow, D.M., Onesti, S. (1998) *Acta Crystallogr.*, Sect. D 54: 589–597.

A serine protease inhibitor specific for trypsin and trypsin-like proteases.

Activity ..... 7000 BAEE Units
Protease ..... NONE
Solubility ..... PASS

Cat. No.	Pk	Pack type
M191-1G	1 g	Glass bottle
M191-10G	10 g	Glass bottle

Trypsin inhibitor (from Soy Bean), reagent grade

A serine protease inhibitor specific for trypsin and trypsin-like proteases.

Activity ..... 7000 BAEE Units
Solubility ..... PASS

Cat. No.	Pk	Pack type
K213-1G	1 g	Glass bottle
K213-10G	10 g	Glass bottle

Tryptic soy agar

See Microbiology

L(-)-Tryptophan

CAS 73-22-3
EINECS: 200-795-6

$C_{11}H_{12}N_2O_2$
M.W. 204.23 g/mol
Density: 1.34 g/cm³ (20 °C)
Melting Pt: 290 °C
Storage Temperature: Ambient temperature

L(-)-Tryptophan for biochemistry

Assay ..... Min. 99 %
Specific optical rotation (5 %; HCl 1 N) ..... 1.5 to 2.5 °
Foreign amino acids ..... Max. 0.3 %
Heavy metals (as Pb) ..... Max. 10 ppm
Ninhydrin-positive substances (glycine) ..... Max. 0.1 %
NH_4 (Ammonium) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
28821.131	25 g	Plastic bottle for solids

(S)-(-)-Tryptophan

See L(-)-Tryptophan p.523

Trytpic soy broth

See Microbiology

TSA

See Microbiology

TSB

See Microbiology

TSC agar

See Microbiology

TSI agar

See Microbiology

TSN agar

See Microbiology

TTC

See 2,3,5-Triphenyltetrazolium chloride p.517

TTC agar

See Microbiology

2,3,5-Triphenyltetrazolium chloride

See 2,3,5-Triphenyltetrazolium chloride p.517

TTE liquid 20X

TTE liquid 20X, ultrapure

Delivers superior results in extended read slab-gel electrophoresis applications.

pH (1X concentration) @25 °C ..... 8.8 - 9.0

Cat. No.	Pk	Pack type
E445-500ML	500 ml	Plastic bottle

Tungsten standard solution, 10,000 mg/l W in water

CAS 7440-33-7
EINECS: 231-143-9

W
M.W. 183.84 g/mol
Storage Temperature: Ambient temperature

Tungsten standard solution, 10,000 mg/l W in water (from W) ARISTAR® standard for ICP

W in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457172E	100 ml	Plastic bottle

Supplied with certificate of analysis.

Tungsten standard solution, 1,000 mg/l W in water

CAS 7440-33-7
EINECS: 231-143-9

W
M.W. 183.84 g/mol
Storage Temperature: Ambient temperature

Tungsten standard solution, 1,000 mg/l W in water (from W) ARISTAR® standard for ICP

W in H_2O

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457182G	100 ml	Plastic bottle
457184Y	500 ml	Plastic bottle

Supplied with certificate of analysis.

Tungsten standard solution, 1,000 mg/l W in nitric acid with hydrofluoric acid (each max. 1%)

CAS 7440-33-7
EINECS: 231-143-9
UN: 2922
ADR 8,II

W
Storage Temperature: Ambient temperature

NEW Tungsten standard solution, 1,000 mg/l W in nitric acid with hydrofluoric acid (each max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86722.180	100 ml	Plastic bottle
86722.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

12-Tungstophosphate hydrate

See Phosphotungstic acid hydrate p.364

Tungstophosphoric acid hydrate

See Phosphotungstic acid hydrate p.364

Turkey Red Oil

Castor oil, sulphated , Ricinus oil, sulphated

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 8002-33-3
EINECS: 232-306-7
Flash Pt: 109 °C (closed cup)
Density: 1.05 g/cm³ (20 °C)

Turkey Red Oil

Appearance ..... Clear amber liquid
Water ..... 45 to 47 %

Cat. No.	Pk	Pack type
56049CK	25 l	Plastic bottle

Turpentine oil

Oil of turpentine , Terpentine , White spirit

Danger
H226 H302+H312+H332 H304 H319 H315 H317 H411
P210 P280 P273 P301+P331 P304+P340 P305+P351+P338 P309+P310

CAS 8006-64-2
Index 650-002-00-6
EINECS: 232-350-7
UN: 1299
ADR 3,III
Flash Pt: 35 °C
Density: 0.854 to 0.868 g/cm³ (25 °C)
Boiling Pt: 153 to 175 °C (1013 hPa)
Melting Pt: -60 to -50 °C

Turpentine oil TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
23699.293	1 l	Glass bottle

Tween® 20 (Polysorbate)

CAS 9005-64-5
EINECS: 500-018-3

$C_{58}H_{114}O_{26}$
M.W. average 1250 g/mol
Density: 1.1 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Tween® 20 (Polysorbate)

IR Spectrum ..... Passes test
Density (20/4) ..... 1.095 to 1.105
Hydroxyl value ..... 96 to 113
Saponification value ..... 40 to 51

Cat. No.	Pk	Pack type
663684B	500 ml	Glass bottle

Tween® is a registered trade mark of Atlas Chemical Industries Inc.

VWR CHEMICALS Tween® 20 (Polysorbate), proteomics grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

Arsenic ..... < 0.0003 %
DNase ..... NONE
Heavy Metals ..... <0.001 %
Hydroxyl Number ..... 96 - 108
Identification ..... PASS
Moisture (KF) ..... 3.0 %
Protease ..... NONE
Residue on Ignition ..... 0.25 %
RNase ..... NONE

Cat. No.	Pk	Pack type
M147-1L	1 l	Plastic bottle for solids
M147-4L	4 l	Bag-in-box (Cubitainer)

Tween® 20 (Polysorbate) Molecular biology grade

A detergent specifically tested for use in molecular biology applications.

Appearance ..... Yellowish granules
DNases ..... Not detected
RNases ..... Not detected
Proteases ..... Not detected
Density (20/4) ..... 1.095 to 1.105
Hydroxyl value ..... 96 to 108
Saponification value ..... 40 to 50

Cat. No.	Pk	Pack type
437082Q	100 ml	Glass bottle for solids

Tween® is a registered trade mark of Atlas Chemical Industries Inc.

Tween® 20 (Polysorbate) TECHNICAL

Hydroxyl value ..... 90 to 110

Cat. No.	Pk	Pack type
28829.183	100 ml	Glass bottle
28829.296	1 l	Plastic bottle

Tween® 20, 10% aqueous solution

CAS 9005-64-5
EINECS: 500-018-3

$C_{58}H_{114}O_{26}$
M.W. 1227.53 g/mol
Storage Temperature: Ambient temperature

VWR CHEMICALS Tween® 20, 10% aqueous solution, proteomics grade

Contains 5×10 ml vials of 10% solution.

DNase ..... NONE
Heavy Metals ..... 0.001 %
Identification ..... PASS
Milliflex (SDA) ..... NONE
Milliflex (TSA) ..... NONE
Peroxide ..... 1.0 umol/mL
Protease ..... NONE
Residue on Ignition ..... 0.25 %
RNase ..... NONE

Cat. No.	Pk	Pack type
M228-10ML-5PK	10 ml	Glass ampoule

Tween® 80 (Polysorbate)

CAS 9005-65-6
EINECS: 500-019-9
Flash Pt: Min. 149 °C
Density: 1.062 g/cm³ (20 °C)
Boiling Pt: Min. 100 °C (1013 hPa)
Melting Pt: -21 °C
Storage Temperature: Ambient temperature

VWR CHEMICALS Tween® 80 (Polysorbate), proteomics grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

DNase ..... NONE
Heavy Metals ..... <0.001 %
Hydroxyl Number ..... 65 - 80
Identification ..... PASS
Moisture (KF) ..... 3.0 %
Protease ..... NONE
Residue on Ignition ..... 0.25 %
RNase ..... NONE
Specific Gravity ..... 1.06 - 1.09
Viscosity ..... 300 - 500 centistokes

Cat. No.	Pk	Pack type
M126-100ML	100 ml	Plastic bottle
M126-1L	1 l	Plastic bottle
M126-4L	4 l	Bag-in-box (Cubitainer)

Tween® 80 (Polysorbate), reagent grade

Non-ionic detergent efficiently separates hydrophilic proteins from membrane spanning, hydrophobic proteins without altering biological activity.

DNase	NONE
Heavy Metals	<0.001 %
Hydroxyl Number	65 - 80
Identification	PASS
Moisture (KF)	3.0 %
Protease	NONE
Residue on Ignition	0.25 %
RNase	NONE
Specific Gravity	1.06 - 1.09
Viscosity	300 - 500 centistokes

Cat. No.	Pk	Pack type
0442-1L	1 l	Plastic bottle for solids
0442-4L	4 l	Bag-in-box (Cubitainer)

Tween® 80 (Polysorbate) TECHNICAL

Identification	Passes test
Density (20/4)	1.070 to 1.090
Hydroxyl value	65 to 80
Saponification value	45 to 55
Conforms to BDH 56023	Passes test

Cat. No.	Pk	Pack type
28830.291	1 l	Plastic bottle

Universal indicator Prolabo®

See Universal indicator ethanol solution p.240

Uracil

CAS 66-22-8

EINECS: 200-621-9

$C_4H_4N_2O_2$

M.W. 112.09 g/mol
Density: 0.99744 g/cm³ (25 °C)
Boiling Pt: 379 °C (1013 hPa)
Melting Pt: 194 °C
Storage Temperature: Ambient temperature

Uracil, ultrapure

Em (258 nm, Phosphate Buffer, pH 7.0) 7850

Cat. No.	Pk	Pack type
0847-250G	250 g	Plastic bottle for solids
0847-500G	500 g	Plastic bottle for solids

Urea

Carbamide , Carbonyldiamide

CAS 57-13-6

EINECS: 200-315-5

NH_2CONH_2

M.W. 60.06 g/mol
Density: 1.34 g/cm³ (20 °C)
Boiling Pt: 197 °C (1013 hPa)
Melting Pt: 132.7 °C
Storage Temperature: Ambient temperature

Urea AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent

Assay ..... Min. 99.5 %
IR Spectrum ..... Passes test
Acidity ..... Max. 0.0005 meq/g
Melting point ..... 132 to 134 °C
Heavy metals (as Pb) ..... Max. 4 ppm
Insolubility in water ..... Max. 30 ppm
Cl (Chloride) ..... Max. 5 ppm
SO_4 (Sulphate) ..... Max. 10 ppm
Fe (Iron) ..... Max. 1 ppm
Conforms to BDH 10290 ..... Passes test
Conforms to Reag. Ph.Eur. ..... Passes test
Appearance of solution (10 %; water) ..... Clear and colourless
Solution S ..... Passes test
Alkalinity ..... Max. 0.0005 meq/g
Biuret ..... Max. 0.05 %
Ignition residue (SO_4) ..... Max. 50 ppm
Loss on drying (100-105°C) ..... Max. 1.0 %
NH_4 (Ammonium) ..... Max. 0.05 %
Cu (Copper) ..... Max. 1 ppm
Pb (Lead) ..... Max. 2 ppm
Conforms to ACS ..... Passes test

Cat. No.	Pk	Pack type
28877.235	250 g	Plastic bottle for solids
28877.260	500 g	Plastic bottle for solids
28877.292	1 kg	Plastic bottle for solids
28877.361	5 kg	Bucket (Plastic)
28877.460	25 kg	Bucket (Plastic)

Urea GPR RECTAPUR®

Assay ..... Min. 95 %
Melting point ..... 132 to 135 °C
Heavy metals (as Pb) ..... Max. 10 ppm
Ignition residue (SO_4) ..... Max. 0.2 %
Cl (Chloride) ..... Max. 5 ppm
Fe (Iron) ..... Max. 10 ppm

Cat. No.	Pk	Pack type
28876.298	1 kg	Plastic bottle for solids
28876.367	5 kg	Bucket (Plastic)
28876.460	25 kg	Bucket (Plastic)

Urea Gen-Apex® Molecular biology grade

Assay ..... Min. 99.5 %
Colouration (8 mol/l; water) ..... Max. 10 APHA
Heavy metals (as Pb) ..... Max. 5 ppm
Transmittance (230 nm) ..... Min. 65 %
Transmittance (260 nm) ..... Min. 80 %
Transmittance (280 nm) ..... Min. 85 %
Transmittance (320 nm) ..... Min. 90 %

Cat. No.	Pk	Pack type
33622.263	500 g	Plastic bottle for solids

Urea Electran® for electrophoresis

Assay ..... Min 99.5 %
Melting point ..... 132 to 134 °C
UV absorbance 260 nm (C=5 mol/l) ..... Max 0.05
UV absorbance 280 nm (C=5 mol/l) ..... Max 0.04
DNAses/RNAses ..... not detected
Proteases ..... Not detected
Cyanate (OCN) ..... not detected
Sulphated ash ..... Max 0.01 %
Biuret ($C_2H_5N_3O_2$) ..... Max 0.05 %
Cyanide (CN^-) ..... Max 0.000001 %
Ammonium (NH_4^+) ..... Max 0.00001 %
Sulphates (SO_4) ..... Max 0.001 %
Chloride (Cl) ..... Max 0.0005 %
Cu (Copper) ..... Max 0.00003 %
Pb (Lead) ..... Max 0.00017 %
Absorbance (260 nm) (5 mol/l) ..... Max. 0.05
Absorbance (280 nm) (5 mol/l) ..... Max. 0.04

Cat. No.	Pk	Pack type
443874G	500 g	Plastic bottle
443876Y	2,5 kg	Plastic bottle
443877J	5 kg	Plastic bottle

Urea, ultrapure

Commonly used to denature nucleic acids for electrophoresis and to study the secondary and tertiary structure of proteins.

Abs.@280 nm (5 M, Water) 0.05
Biuret Test ..... PASS
Chloride ..... 0.0005 %
Cyanate ..... 0.002 %
DNase ..... NONE
Heavy Metals (as Pb) ..... 0.0005 %
Identification ..... NONE
Insolubles ..... 0.005 %
Iron ..... 0.0001 %
Melting Point ..... 132 - 135 °C
Protease ..... NONE
Purity ..... 99.5 %
RNase ..... NONE
Solubility (5 M, Water) ..... PASS

Cat. No.	Pk	Pack type
0568-100G	100 g	Plastic bottle for solids
0568-500G	500 g	Plastic bottle for solids
0568-1KG	1 kg	Plastic bottle for solids
0568-2.5KG	2,5 kg	Bucket (Plastic)
0568-5KG	5 kg	Bucket (Plastic)
0568-10KG	10 kg	Bucket (Plastic)

Urea, proteomics grade

Abs.@280 nm (5 M, Water) 0.05
Biuret Test ..... PASS
Chloride ..... 0.0005 %
Cyanate ..... <0.002 %
DNase ..... NONE
Heavy Metals (as Pb) ..... 0.0005 %
Insolubles ..... 0.005 %
Iron ..... 0.0001 %
Melting Point ..... 132 - 135 °C
Protease ..... NONE
Purity ..... 99.5 %
RNase ..... NONE
Solubility (5 M, Water) ..... PASS

Cat. No.	Pk	Pack type
M123-500G	500 g	Plastic bottle for solids
M123-1KG	1 kg	Plastic bottle for solids
M123-2.5KG	2,5 kg	Bucket (Plastic)

Urea TECHNICAL

Assay ..... Min. 90 %

Cat. No.	Pk	Pack type
28875.460	25 kg	Cardboard carton

Urea in aqueous solution

CAS 57-13-6
EINECS: 200-315-5

NH_2CONH_2
Storage Temperature: Ambient temperature

NEW Urea 40% in aqueous solution for microbiology

Sterile additive for the urease test in microbiology.

Cat. No.	Pk	Pack type
992830ZF	100 ml	Glass bottle

VWR CHEMICALS Urea 8 mol/l in aqueous solution, ultrapure

Commonly used to denature nucleic acids for electrophoresis and to study the secondary and tertiary structure of proteins.

Clarity ..... PASS
Urea ..... 7.8 - 8.2 M

Cat. No.	Pk	Pack type
E720-250ML	250 ml	Plastic bottle

VWR CHEMICALS Urea 8 mol/l in aqueous solution, proteomics grade

Clarity ..... PASS
Protease ..... NONE
Urea ..... 7.8 - 8.2 M

Cat. No.	Pk	Pack type
M124-250ML	250 ml	Plastic bottle for solids

Uric acid

CAS 69-93-2
EINECS: 200-720-7

$C_5H_4N_4O_3$
M.W. 168.11 g/mol
Density: 1.89 g/cm^3 (20 °C)
Melting Pt: 436 °C
Storage Temperature: Ambient temperature

Uric acid, purified

Assay ..... Min. 99 %

Cat. No.	Pk	Pack type
20745.134	25 g	Plastic bottle for solids

Uridine

CAS 58-96-8
EINECS: 200-407-5

$C_9H_{12}N_2O_6$
Storage Temperature: Ambient temperature

VWR CHEMICALS Uridine, ultrapure

Em (261 nm, 0.15 M Phosphate Buffer, pH 7.3) 10100

Cat. No.	Pk	Pack type
0975-25G	25 g	Plastic bottle for solids
0975-50G	50 g	Plastic bottle for solids

Urine dipslide

See Microbiology

Urotropine

See Methenamine p.288

Uridine-5'-triphosphoric acid trisodium salt (UTP-Na3)

CAS 19817-92-6
EINECS: 243-347-5

$C_9H_{12}N_2Na_3O_{15}P_3$
Storage Temperature: -20°C

VWR CHEMICALS UTP-Na3 (Uridine-5'-triphosphoric acid trisodium salt), ultrapure

Moisture (KF) ..... 13 %
Purity (Dried) ..... 98 %

Cat. No.	Pk	Pack type
0145-100MG	100 mg	Glass bottle
0145-250MG	250 mg	Glass bottle

UV-visible spectroscopy standards

Description	Page	Pk	Cat. No.
Bandwidth standards packed in six permanently sealed UV cuvettes or 100 ml amber bottle			
Bandwidth standard toluene in hexane with blank in sealed cuvettes, ratio of 268.7 nm peak to 266.8 nm trough (set of 42 permanently sealed UV cuvettes)	468	1 SET	84830.600
Bandwidth standard - blank - ratio of 268.7 nm peak to 266.8 nm trough (single permanently sealed UV cuvette)	468	1 SET	84832.600
Bandwidth standard toluene in hexane, ratio of 268.7 nm peak to 266.8 nm trough	468	100 ml	84833.180
Bandwidth standard blank, ratio of 268.7 nm peak to 266.8 nm trough	468	100 ml	84795.180
Wavelength standards (certified at 0,1; 0,2; 0,5; 1; 2 and 5 nm slit widths) packed in six permanently sealed UV cuvettes or 100 ml amber bottle			
Didymium solution UV and visible wavelength standard 298 nm to 865 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0nm, 2.0 nm and 5 nm slit widths)	468	1 SET	84772.600
Didymium solution UV and visible wavelength standard 298 nm to 865 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)	468	100 ml	84775.180
Holmium oxide solution UV and visible wavelength standard 240 nm to 640 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)	468	1 SET	84774.600
Holmium oxide solution UV and visible wavelength standard 240 nm to 640 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)	468	100 ml	84777.180
Samarium solution UV and visible wavelength standard 235 nm to 480 nm (single permanently sealed UV cuvette), wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)	468	1 SET	84773.600
Samarium solution UV and visible wavelength standard 235 nm to 480 nm, wavelength standards (certified at 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm and 5 nm slit widths)	468	100 ml	84776.180
Linearity standards at 213 and 261 nm, packed in six permanently sealed UV cuvettes or 100 ml amber bottle			
Nicotinic acid absorbance/transmission standard 6mg/l (single permanently sealed UV cuvette plus blank) linearity standards @ 213 and 261 nm	468	1 SET	84763.600
Nicotinic acid absorbance / transmission standard 6 mg/l linearity standards @ 213 and 261 nm	469	100 ml	84768.180
Nicotinic acid absorbance/transmission standard 12 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm	469	1 SET	84764.600
Nicotinic acid absorbance/transmission standard 12 mg/l, linearity standards @ 213 and 261 nm	469	100 ml	84769.180
Nicotinic acid absorbance/transmission standard 18 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm	469	1 SET	84765.600
Nicotinic acid absorbance/transmission standard 18 mg/l, linearity standards @ 213 and 261 nm	469	100 ml	84770.180
Nicotinic acid absorbance/transmission standard 24 mg/l (single permanently sealed UV cuvette plus blank), linearity standards @ 213 and 261 nm	469	1 SET	84766.600
Nicotinic acid absorbance/transmission standard 24 mg/l, linearity standards @ 213 and 261 nm	469	100 ml	84771.180
Nicotinic acid linearity set with blank in sealed cuvettes 0, 6,12,18, 24 mg/l (set of 5 permanently sealed UV cuvettes), linearity standards @ 213 and 261 nm	469	1 SET	84762.600
Linearity standards @ 235, 257, 313 and 350nm, potassium dichromate linearity set with blank - 0mg/l, 20mg/l, 40mg/l, 60mg/l, 80mg/l, 100mg/l (packed in six permanently sealed UV cuvettes)	469	1 SET	84750.600
Linearity standards at 235, 257, 313 and 350 nm packed in six permanently sealed UV cuvettes or 100 ml amber bottle			
Blank - 0.1M hydrochloric acid, linearity standards @ 213 and 261 nm	468	100 ml	84767.180
Blank - 0.001M perchloric acid 0mg/l, linearity standards @ 235, 257, 313 and 350 nm	469	100 ml	84756.180
Potassium dichromate absorbance/transmission standard - 20mg/l (packed in single permanently sealed UV cuvette plus blank)linearity standards @ 235, 257, 313 and 350nm	469	1 SET	84751.600
Potassium dichromate absorbance/transmission standard 20 mg/l, linearity standards @ 235, 257, 313 and 350 nm	469	100 ml	84757.180
Potassium dichromate absorbance/transmission standard 40mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm	469	1 SET	84752.600
Potassium dichromate absorbance/transmission standard 40mg/l, linearity standards @ 235, 257, 313 and 350 nm	469	100 ml	84758.180
Potassium dichromate absorbance/transmission standard 60mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm	469	1 SET	84753.600
Potassium dichromate absorbance/transmission standard 60 mg/l, linearity standards @ 235, 257, 313 and 350 nm	469	100 ml	84759.180
Potassium dichromate absorbance/transmission standard 80mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm	469	1 SET	84754.600
Potassium dichromate absorbance/transmission standard 80 mg/l, linearity standards @ 235, 257, 313 and 350 nm	469	100 ml	84760.180
Potassium dichromate absorbance/transmission standard 100 mg/l (packed in single permanently sealed UV cuvette plus blank), linearity standards @ 235, 257, 313 and 350 nm	470	1 SET	84755.600
Potassium dichromate absorbance/transmission standard 100mg/l, linearity standards @ 235, 257, 313 and 350 nm	470	100 ml	84761.180
Stray light standards packed in six permanently sealed UV cuvettes or 100 ml amber bottle			
Stray light inorganic cut-off filter (200 nm) potassium chloride (single permanently sealed UV cuvette plus blank) stray light standards	470	1 SET	84783.600
Stray light inorganic cut-off filter (200 nm), potassium chloride stray light standards	470	100 ml	84789.180
Stray light inorganic cut-off filter (205 nm) sodium chloride (single permanently sealed UV cuvette plus blank) stray light standards	470	1 SET	84782.600
Stray light inorganic cut-off filter (205 nm), sodium chloride stray light standards	470	100 ml	84788.180
Stray light inorganic cut-off filter (227 nm), lithium carbonate (single permanently sealed UV cuvette plus blank) stray light standards	470	1 SET	84781.600
Stray light inorganic cut-off filter (227 nm), lithium carbonate stray light standards	470	100 ml	84787.180
Stray light inorganic cut-off filter (260 nm), potassium iodide (single permanently sealed UV cuvette plus blank) stray light standards	470	1 SET	84779.600
Stray light inorganic cut-off filter (260 nm), potassium iodide stray light standards	470	100 ml	84785.180

Description	Page	Pk	Cat. No.
Stray light inorganic cut-off filter (260nm) – Sodium Iodide (single permanently sealed UV cuvette plus blank)	470	1 SET	84780.600
Stray light inorganic cut-off filter (260 nm), sodium iodide stray light standards	470	100 ml	84786.180
Stray light inorganic cut-off filter (390 nm), sodium nitrite (single permanently sealed UV cuvette plus blank) stray light standards	470	1 SET	84778.600
Stray light inorganic cut-off filter (390 nm), sodium nitrite stray light standards	470	100 ml	84784.180
Stray light blank, aqueous stray light standards	470	100 ml	84829.180

Vacuum oil for pump

CAS 8012-95-1
EINECS: 232-384-2

Vacuum oil for pump TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
9930.5000	5 l	Plastic container

Vanadium standard solution, 10,000 mg/l V in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-62-2
EINECS: 231-171-1
UN: 3264
ADR 8,III

V
M.W. 50.94 g/mol
Storage Temperature: Ambient temperature

Vanadium standard solution, 10,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP

V_2O_5 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456332V	100 ml	Plastic bottle
456334A	500 ml	Plastic bottle

Supplied with certificate of analysis.

Vanadium standard solution, 1,000 mg/l V in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-62-2
EINECS: 231-171-1
UN: 3264
ADR 8,III

V
M.W. 50.94 g/mol
Density: 1.017 g/cm³ (25 °C)
Storage Temperature: Ambient temperature

Vanadium standard solution, 1,000 mg/l V in dil. nitric acid (from V) ARISTAR® standard for ICP-MS

V in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456972B	100 ml	Plastic bottle

Supplied with certificate of analysis.

Vanadium standard solution, 1,000 mg/l V in dil. nitric acid (from V_2O_5) ARISTAR® standard for ICP

V_2O_5 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456322T	100 ml	Plastic bottle
456324V	500 ml	Plastic bottle

Supplied with certificate of analysis.

Vanadium standard solution, 1,000 mg/l V in 2% sulphuric acid

CAS 7440-62-2
EINECS: 231-171-1

V
M.W. 50.94 g/mol
Storage Temperature: Ambient temperature

Vanadium standard solution, 1,000 mg/l V in 2% sulphuric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86721.180	100 ml	Plastic bottle
86721.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Vanadium oxide sulphate pentahydrate

See Vanadyl sulphate pentahydrate p.532

Divanadium pentoxide solution in sulfuric acid

NEW di-Vanadium pentoxide solution in sulfuric acid Reag. Ph. Eur. 1034001

Cat. No.	Pk	Pack type
87828.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Vanadium (IV) sulphate oxide pentahydrate

See Vanadyl sulphate pentahydrate p.532

Vanadomolybdate reagent

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 2031
ADR 8,II
Density: ~ 1.2 g/cm³ (20 °C)
Boiling Pt: ~ 100 °C (1013 hPa)

Vanadomolybdate reagent Reag. Ph. Eur. 1060100

Cat. No.	Pk	Pack type
87882.220	200 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Vanadomolybdate reagent

Cat. No.	Pk	Pack type
191844W	1 l	Glass bottle

Vanadyl sulphate pentahydrate

Vanadium oxide sulphate pentahydrate , Basic vanadium (IV) sulphate pentahydrate , Vanadium (IV) sulphate oxide pentahydrate

Warning
H302
P301+P312

CAS 12439-96-2
EINECS: 248-652-7
UN: 2931
ADR 6.1,II

$VOSO_4 \cdot 5H_2O$
M.W. 253.08 g/mol
Density: 2 g/cm³ (20 °C)

Vanadyl sulphate pentahydrate TECHNICAL

Entspricht ..... Passes test

Cat. No.	Pk	Pack type
28900.180	100 g	Plastic bottle for solids

Vaseline oil

See Paraffin, liquid p.338

Vaseline white

CAS 92045-74-4
EINECS: 295-456-2
Flash Pt: 37.8
Density: 0.865 g/cm³ (25 °C)
Melting Pt: 38 to 56 °C

Vaseline white Reag. Ph. Eur.

Appearance ..... White mass
Identification A ..... Passes test
Identification B ..... Passes test
Identification D ..... Passes test
Appearance test ..... Passes test
Acidity or alkalinity ..... Passes test
Consistency ..... 60 to 300
Polycyclic aromatic hydrocarbons ..... Passes test
Sulphated ash ..... Max. 0.05 %
Residual solvents ..... Passes test

Cat. No.	Pk	Pack type
28908.290	1 kg	Plastic bottle

Violet bile red dextrose agar

See Microbiology

Violet crystal solution

NEW

Violet crystal solution

Cat. No.	Pk	Pack type
911517ZA	1 l	Plastic bottle

Violet red Bile Agar

See Microbiology

Violet red bile dextrose agar

See Microbiology

Violet red bile glucose agar

See Microbiology

Violet red lactose agar

See Microbiology

VitamineB1 hydrochloride

See Thiamine hydrochloride p.502

Vitamine B2

See Riboflavine (Vitamin B2) p.410

Vitamine G

See Riboflavine (Vitamin B2) p.410

Volatile Organic Compound Mix 1 (Liquid)

Danger
H225 H301+H311+H331 H370
P210 P243 P280 P302+P352 P304+P340 P309+P310
UN: 1230
ADR 3,II
Storage Temperature: Ambient temperature

Volatile Organic Compound Mix 1 (Liquid)

0.2mg/ml of each component in Methanol
Volatile Organic Components by PID/ELCD
54 liquid components :
Benzene; Bromobenzene; Bromochloromethane; Bromodichloromethane; Bromoform; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon tetrachloride; Chlorobenzene; Chloroform; 2-Chlorotoluene; 4-Chlorotoluene; Dibromochloromethane; 1,2-Dibromo-3-chloropropane; 1,2-Dibromoethane; Dibromomethane; 1,2-Dichlorobenzene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethene; cis-1,2-Dichloroethene; trans-1,2-Dichloroethene; 1,2-Dichloropropane; 1,3-Dichloropropane; 2,2-Dichloropropane; 1,1-Dichloropropene; cis-1,3-Dichloropropene; trans-1,3-Dichloropropene; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; p-Isopropyltoluene; Methylene chloride; Naphthalene; n-Propylbenzene; Styrene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; Toluene; 1,2,3-Trichlorobenzene; 1,2,4-Trichlorobenzene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethene; 1,2,3-Trichloropropane; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; o-Xylene; m-Xylene; p-Xylene

Cat. No.	Pk	Pack type
123382J	1 ml	Glass ampoule

VOLTALEF® grease

See Poly(chlorotrifluoroethylene) grease p.366

VOLTALEF® oil

See Poly(chlorotrifluoroethylene) 800 ..... p.366

Volumetric solutions AVS TITRINORM®

- Traceable to SRM from NIST
- No costly preparation time
- Variety of pack sizes/pack types: 250 ml up to 20 l, in bottles, bag-in-box or bulk packs
- Manufactured from analytical grade products, within an accuracy of 0,2%
- High reproducibility, labelled with minimum shelf life/batch number

Description	Page	Pk	Cat. No.
Acetic acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	4, 533	1 l	30010.292
Ammonium cerium (IV) sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	31, 533	1 l	2678.1000
Benzethonium chloride 0.004 mol/l AVS TITRINORM® volumetric solution	63, 533	2,5 l	30497.327
Calcium chloride 1 mol/l in aqueous solution AVS TITRINORM® volumetric solution	93, 533	1 l	190464K
Cerium (IV) sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	101, 533	2,5 l	190475N
Cerium (IV) sulphate 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution	101, 533	1 l	31307.294
EDTA disodium salt 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution	161, 533	1 l	28662.290
EDTA disodium salt 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution	161, 533	5 l	28662.370
EDTA disodium salt 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	161, 533	1 l	30031.294
EDTA disodium salt 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	161, 533	10 l	30031.408
EDTA disodium salt 0.01 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution	161, 533	5 l	160226G
Hydrochloric acid 6 mol/l (6 N) AVS TITRINORM® Reag. Ph. Eur. 3001500 volumetric solution	228, 533	5 l	2611.5000
Hydrochloric acid 5 mol/l (5 N) AVS TITRINORM® volumetric solution	228, 533	1 l	30018.298
Hydrochloric acid 5 mol/l (5 N) AVS TITRINORM® volumetric solution	228, 533	2,5 l	30018.320
Hydrochloric acid 5 mol/l (5 N) AVS TITRINORM® volumetric solution	228, 533	5 l	30018.360
Hydrochloric acid 5 mol/l (5 N) AVS TITRINORM® volumetric solution	228, 533	20 l	30018.447
Hydrochloric acid 4 mol/l (4 N) VOLUSOL® volumetric solution	228, 533	1 l	310701.1000
Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution	228, 533	1 l	30025.293
Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution	228, 533	2,5 l	30025.320
Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution	228, 533	5 l	30025.362
Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution	228, 533	5 l	30025.373
Hydrochloric acid 2 mol/l (2 N) AVS TITRINORM® volumetric solution	228, 533	10 l	30025.407
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	10 l	190687A
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	1 l	30024.290
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	2,5 l	30024.324
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	5 l	30024.370
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	10 l	30024.404
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	10 l	30024.415
Hydrochloric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	228, 533	20 l	30024.448
Hydrochloric acid 0.5 mol/l (0.5 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	228, 533	1 l	31954.290
Hydrochloric acid 0.5 mol/l (0.5 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	228, 533	5 l	31954.368
Hydrochloric acid 0.5 mol/l (0.5 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	228, 533	10 l	31954.404
Hydrochloric acid 0.357 mol/l (N/2.8) AVS TITRINORM® volumetric solution	228, 533	1 l	30023.296
Hydrochloric acid 0.2 mol/l (0.2 N) AVS TITRINORM® volumetric solution	229, 533	1 l	31983.290
Hydrochloric acid 0.2 mol/l (0.2 N) AVS TITRINORM® volumetric solution	229, 533	5 l	31983.370
Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	229, 533	1 l	31955.293
Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	229, 533	2,5 l	31955.327
Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	229, 533	5 l	31955.373
Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	229, 533	10 l	31955.407
Hydrochloric acid 0.1 mol/l (0.1 N) AVS TITRINORM® Reag. Ph. Eur. volumetric solution	229, 533	20 l	31955.442
Hydrochloric acid 0.04 mol/l (0.04 N) AVS TITRINORM® according to the NF T 90-036 standard, volumetric solution	229, 533	1 l	30022.293
Hydrochloric acid 0.02 mol/l (0.02 N) AVS TITRINORM® volumetric solution	229, 533	1 l	98052.296
Hydrochloric acid 0.01 mol/l (0.01 N) VOLUSOL® volumetric solution	229, 533	1 l	311341.1000
Iodine 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	246, 533	250 ml	30914.238
Iodine 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	246, 533	1 l	30914.295
Iodine 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	246, 533	1 l	30917.295
Iodine 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	246, 533	2,5 l	30917.320
Nitric acid 1 mol/l (1 N) AVS TITRINORM® volumetric solution	327, 533	1 l	30065.291
Orthophosphoric acid 150 ml/l AVS TITRINORM® for TOC	334, 533	2,5 l	310337.2500
Oxalic acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	334, 533	1 l	30086.293
Oxalic acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	334, 533	1 l	30093.297
Perchloric acid 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	349, 533	1 l	30111.291
Perchloric acid 0.1 mol/l (0.1 N) in anhydrous acetic acid AVS TITRINORM® volumetric solution	349, 533	500 ml	30110.264
Perchloric acid 0.1 mol/l (0.1 N) in anhydrous acetic acid AVS TITRINORM® volumetric solution	349, 533	1 l	30110.297
Perchloric acid 0.1 mol/l (0.1 N) in anhydrous acetic acid AVS TITRINORM® volumetric solution	349, 533	2,5 l	30110.320
Potassium dichromate 1/6 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	374, 533	1 l	31396.291
Potassium dichromate 1/60 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	374, 533	2,5 l	191005X
Potassium dichromate 0.04 mol/l (0.24 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	374, 533	1 l	30892.298
Potassium dichromate 0.04 mol/l (0,24 N) with mercury (II) sulphate 80 g/l in sulphuric acid solution AVS TITRINORM® volumetric solution, for COD determination in water	375, 533	1 l	30891.295
Potassium dichromate 0.04 mol/l (0,24 N) with mercury (II) sulphate 80 g/l in sulphuric acid solution AVS TITRINORM® volumetric solution, for COD determination in water	375, 533	2,5 l	30891.420
Potassium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	382, 533	1 l	31300.291
Potassium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® volumetric solution	382, 533	1 l	31950.296
Potassium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	382, 533	1 l	31780.298
Potassium hydroxide 1 mol/l (1 N) in ethanol AVS TITRINORM® volumetric solution	382, 533	500 ml	31306.267
Potassium hydroxide 0.5 mol/l (0.5 N) in ethanol AVS TITRINORM® volumetric solution	382, 533	500 ml	31308.264
Potassium hydroxide 0.5 mol/l (0.5 N) in ethanol AVS TITRINORM® volumetric solution	382, 533	1 l	31308.297
Potassium hydroxide 0.1 mol/l (0.1 N) in ethanol AVS TITRINORM® volumetric solution	383, 533	1 l	31303.291
Potassium hydroxide 0.05 mol/l (0.05 N) in ethanol AVS TITRINORM® volumetric solution	383, 533	1 l	31305.297
Potassium hydroxide 2 mol/l (2 N) in methanol AVS TITRINORM® volumetric solution	383, 533	1 l	32199.296
Potassium hydroxide 0.1 mol/l 0.1 N in methanol AVS TITRINORM® volumetric solution	383, 533	1 l	32304.291
Potassium hydroxide 0.1 mol/l 0.1 N in methanol AVS TITRINORM® volumetric solution	383, 533	2,5 l	32304.427
Potassium permanganate 0.2 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	387, 533	1 l	31451.292
Potassium permanganate 0.2 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	387, 533	2,5 l	31451.326
Potassium permanganate 0.02 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	387, 533	1 l	31455.295

Description	Page	Pk	Cat. No.
Potassium permanganate 0.02 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	387, 534	2,5 l	31455.320
Potassium thiocyanate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	390, 534	1 l	31481.295
Silver nitrate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	250 ml	30471.237
Silver nitrate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	1 l	30471.294
Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	1 l	30472.297
Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	2,5 l	30472.322
Silver nitrate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	10 l	30472.402
Silver nitrate 0.0855 mol/l (0.0855 N; 14.52 g/l; 1 ml = 5 mg NaCl) in aqueous solution AVS TITRINORM® volumetric solution	427, 534	1 l	30488.292
Silver nitrate 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution	428, 534	1 l	30475.297
Silver nitrate 0.05 mol/l (0.05 N) in aqueous solution AVS TITRINORM® volumetric solution	428, 534	2,5 l	30475.322
Silver nitrate 0.02 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution	428, 534	2,5 l	191265J
Silver nitrate 0.01 mol/l (0.01 N) in aqueous solution AVS TITRINORM® volumetric solution	428, 534	1 l	30476.291
Silver sulphate 10 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	428, 534	1 l	30491.247
Silver sulphate 10 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	428, 534	2,5 l	30491.420
Silver sulphate 6.6 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	429, 534	1 l	30492.241
Silver sulphate 6.6 g/l in sulphuric acid AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	429, 534	2,5 l	30492.423
Sodium carbonate 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	434, 534	1 l	31524.294
Sodium chloride 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	436, 534	1 l	31535.292
Sodium hydrogen carbonate 0.35% in aqueous solution AVS TITRINORM® volumetric solution	442, 534	2,5 l	307212.2500
Sodium hydroxide 10 mol/l (10 N) in aqueous solution VOLUSOL® volumetric solution	447, 534	1 l	310933.1000
Sodium hydroxide 5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	1 l	31624.290
Sodium hydroxide 5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	2,5 l	31624.320
Sodium hydroxide 4 mol/l (4 N) in aqueous solution AVS TITRINORM® volumetric solution low in carbonate	447, 534	1 l	191373M
Sodium hydroxide 4 mol/l (4 N) in aqueous solution AVS TITRINORM® volumetric solution low in carbonate	447, 534	5 l	191376P
Sodium hydroxide 4 mol/l (4 N) in aqueous solution VOLUSOL® volumetric solution	447, 534	2,5 l	306452.2500
Sodium hydroxide 2 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	1 l	98108.290
Sodium hydroxide 2 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	5 l	98108.360
Sodium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	1 l	31627.290
Sodium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	5 l	31627.368
Sodium hydroxide 1 mol/l (1 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	10 l	31627.404
Sodium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	1 l	31951.290
Sodium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	5 l	31951.370
Sodium hydroxide 0.5 mol/l (0.5 N) in aqueous solution AVS TITRINORM® Reag. Ph. Eur. volumetric solution	447, 534	10 l	31951.404
Sodium hydroxide 0.25 mol/l (0.25 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	1 l	31956.296
Sodium hydroxide 0.2 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution	447, 534	1 l	31952.293
Sodium hydroxide 0.111 mol/l (0.111 N) in aqueous solution AVS TITRINORM® volumetric solution, for milk acidity analysis according to Dornic	448, 534	1 l	31760.290
Sodium hydroxide 0.111 mol/l (0.111 N) in aqueous solution AVS TITRINORM® volumetric solution, for milk acidity analysis according to Dornic	448, 534	5 l	31760.368
Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	1 l	31770.294
Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	5 l	31770.363
Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	5 l	31770.374
Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	10 l	31770.408
Sodium hydroxide 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	20 l	31770.443
Sodium hydroxide 0.04 mol/l (0.04 N) in aqueous solution AVS TITRINORM® volumetric solution	448, 534	1 l	31769.290
Sodium metaarsenite 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	450, 534	1 l	31531.298
Sodium peroxodisulphate 1 mol/l in aqueous solution AVS TITRINORM® volumetric solution, for TOC	454, 534	2,5 l	306448.2500
Sodium thiosulphate 1 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	460, 534	1 l	31547.293
Sodium thiosulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	461, 534	1 l	31553.294
Sodium thiosulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	461, 534	5 l	31553.363
Sodium thiosulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	461, 534	10 l	31553.408
Sodium thiosulphate 0.01 mol/l (0.01 N) in aqueous solution VOLUSOL® volumetric solution	461, 534	1 l	309337.1000
Sulphuric acid 5 mol/l (10 N) in aqueous solution AVS TITRINORM® volumetric solution	489, 534	2,5 l	191665V
Sulphuric acid 4 mol/l (8 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	489, 534	1 l	30148.297
Sulphuric acid 4 mol/l (8 N) in aqueous solution AVS TITRINORM® volumetric solution, for COD determination according to NFT 90-101 standard	489, 534	2,5 l	30148.320
Sulphuric acid 2.5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	2,5 l	191675A
Sulphuric acid 2.5 mol/l (5 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30138.293
Sulphuric acid 1 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30149.291
Sulphuric acid 1 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	2,5 l	30149.325
Sulphuric acid 1 mol/l (2 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	5 l	30149.371
Sulphuric acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30144.294
Sulphuric acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	2,5 l	30144.328
Sulphuric acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	5 l	30144.363
Sulphuric acid 0.5 mol/l (1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	10 l	30144.408
Sulphuric acid 0.25 mol/l (0.5 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30143.291
Sulphuric acid 0.25 mol/l (0.5 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	10 l	30143.405
Sulphuric acid 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30145.297
Sulphuric acid 0.1 mol/l (0.2 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	10 l	30145.402
Sulphuric acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30150.295
Sulphuric acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	2,5 l	30150.320
Sulphuric acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	5 l	30150.375
Sulphuric acid 0.05 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	10 l	30150.400
Sulphuric acid 0.02 mol/l (0.04 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	1 l	30146.291
Sulphuric acid 0.01 mol/l (0.02 N) in aqueous solution AVS TITRINORM® volumetric solution	490, 534	5 l	191736T
Sulphuric acid 0.005 mol/l (0.01 N) in aqueous solution AVS TITRINORM® volumetric solution	491, 534	10 l	30147.408
Tetrabutylammonium hydroxide 0.1 mol/l (0.1 N) in 2-propanol 90% (v/v) / methanol 10% (v/v) AVS TITRINORM® volumetric solution	497, 534	500 ml	28533.261

Description	Page	Pk	Cat. No.
Tetrabutylammonium hydroxide 0.1 mol/l (0.1 N) in toluene 90% (v/v) / methanol 10% (v/v) AVS TITRINORM® volumetric solution	498, 535	500 ml	28532.267
Zinc sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution	535, 553	1 l	30498.296

Concentrated analytical solutions for volumetric titrations, Convol NORMADOSE®

Concentrated analytical solutions that save space and cost without compromising on quality.

- Concentrated solutions in an ampoule for dilution to 1 litre
- Solutions prepared from analytical reagents
- Economical and space saving
- Final concentration can be user-specified
- Instructions for use written on the boxes
- Accuracy of 0,2 %

Description	Page	Pk	Cat. No.
Acetic acid 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	4, 535	60 ml	84588.600
Barium chloride 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	59, 535	60 ml	84590.600
EDTA disodium salt 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	161, 535	60 ml	32068.603
Hydrochloric acid 1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	227, 535	160 ml	32050.602
Hydrochloric acid 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	227, 535	210 ml	84589.600
Hydrochloric acid 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	227, 535	60 ml	32051.605
Iodine 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	246, 535	30 ml	84591.600
Nitric acid 0.1 mol concentrated solution ConvoL NORMADOSE® volumetric solution	326, 535	60 ml	32069.606
Potassium dichromate 1/60 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	374, 535	60 ml	32061.600
Potassium hydroxide 0.5 mol in aqueous solution ConvoL NORMADOSE® volumetric solution	382, 535	210 ml	84592.600
Potassium permanganate 0.002 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	386, 535	30 ml	84594.600
Silver nitrate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	427, 535	60 ml	32056.602
Sodium carbonate 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	434, 535	60 ml	32063.606
Sodium chloride 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	436, 535	60 ml	32064.600
Sodium hydroxide 1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	446, 535	170 ml	32066.606
Sodium hydroxide 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	446, 535	210 ml	84597.600
Sodium hydroxide 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	446, 535	60 ml	32067.600
Sodium hydroxide 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	447, 535	60 ml	84596.600
Sodium thiosulphate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	460, 535	60 ml	32065.603
Sodium thiosulphate 0.01 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	460, 535	60 ml	84598.600
Sulphuric acid 0.05 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	489, 535	60 ml	32054.605
Sulphuric acid 0.5 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	489, 535	170 ml	32053.602
Zinc sulphate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution	535, 553	60 ml	32080.605

VRB

See Microbiology

VRB agar

See Microbiology

VRBD agar

See Microbiology

Water (reagents for the analysis of)

Iodine AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent resublimed . p.245
Methanol AnalaR NORMAPUR® ACS, ISO, Reag.Ph.Eur. analytical reagent p.287
Pyridine anhydrous AnalaR NORMAPUR® ACS, ISO, Reag. Ph. Eur. analytical reagent, for Karl Fischer reagent p.399
di-Sodium L(+)-tartrate dihydrate GPR RECTAPUR® p.458

Water

CAS 7732-18-5
EINECS: 231-791-2

H_2O
M.W. 18.02 g/mol
Density: 1 g/cm³ (4 °C)
Boiling Pt: 100 °C (1013 hPa)
Melting Pt: 0 °C
Storage Temperature: Ambient temperature

Water NORMATOM® for trace metal analysis

Colouration	Max. 10 APHA	Ag (Silver)	Max. 50 ppt
Al (Aluminium)	Max. 200 ppt	As (Arsenic)	Max. 50 ppt
Au (Gold)	Max. 50 ppt	B (Boron)	Max. 500 ppt
Ba (Barium)	Max. 50 ppt	Be (Beryllium)	Max. 50 ppt
Bi (Bismuth)	Max. 50 ppt	Ca (Calcium)	Max. 500 ppt
Cd (Cadmium)	Max. 50 ppt	Ce (Cerium)	Max. 20 ppt
Co (Cobalt)	Max. 50 ppt	Cr (Chromium)	Max. 50 ppt
Cs (Cesium)	Max. 50 ppt	Cu (Copper)	Max. 100 ppt
Dy (Dysprosium)	Max. 20 ppt	Er (Erbium)	Max. 20 ppt
Eu (Europium)	Max. 20 ppt	Fe (Iron)	Max. 300 ppt
Ga (Gallium)	Max. 50 ppt	Gd (Gadolinium)	Max. 20 ppt
Ge (Germanium)	Max. 50 ppt	Hf (Hafnium)	Max. 10 ppt
Hg (Mercury)	Max. 200 ppt	Ho (Holmium)	Max. 20 ppt
In (Indium)	Max. 50 ppt	K (Potassium)	Max. 300 ppt
La (Lanthanum)	Max. 20 ppt	Li (Lithium)	Max. 50 ppt
Lu (Lutetium)	Max. 20 ppt	Mg (Magnesium)	Max. 100 ppt
Mn (Manganese)	Max. 50 ppt	Mo (Molybdenum)	Max. 50 ppt
Na (Sodium)	Max. 500 ppt	Nb (Niobium)	Max. 50 ppt
Nd (Neodymium)	Max. 50 ppt	Ni (Nickel)	Max. 50 ppt
Pb (Lead)	Max. 50 ppt	Pd (Palladium)	Max. 50 ppt
Pr (Praseodymium)	Max. 20 ppt	Pt (Platinum)	Max. 50 ppt
Rb (Rubidium)	Max. 20 ppt	Re (Rhenium)	Max. 50 ppt
Rh (Rhodium)	Max 50 ppt	Ru (Ruthenium)	Max. 50 ppt
Sb (Antimony)	Max. 50 ppt	Sc (Scandium)	Max. 50 ppt
Se (Selenium)	Max. 200 ppt	Sm (Samarium)	Max. 20 ppt
Sn (Tin)	Max. 50 ppt	Sr (Strontium)	Max. 50 ppt
Ta (Tantalum)	Max. 50 ppt	Tb (Terbium)	Max. 50 ppt
Te (Tellurium)	Max. 50 ppt	Th (Thorium)	Max. 10 ppt
Ti (Titanium)	Max. 50 ppt	Tl (Thallium)	Max. 50 ppt
Tm (Thulium)	Max. 20 ppt	U (Uranium)	Max. 10 ppt
V (Vanadium)	Max. 50 ppt	W (Tungsten)	Max. 100 ppt
Y (Yttrium)	Max. 10 ppt	Yb (Ytterbium)	Max. 20 ppt
Zn (Zinc)	Max. 500 ppt	Zr (Zirconium)	Max. 50 ppt

Cat. No.	Pk	Pack type
83877.260	500 ml	Plastic bottle
83877.290	1 l	Glass bottle

Water HiPerSolv CHROMANORM® for LC-MS

Filtered 0.2 µm filter, packaged under nitrogen

Colouration	Max. 5 APHA
Specific conductivity (25°C)	Max. 1 µS/cm
Total organic carbon (TOC)	Max. 0.2 %
Reaction with phenolphthalein	None
Gradient grade (254 nm)	Max. 2 mAU
Ca (Calcium)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Na (Sodium)	Max. 0.1 ppm
Pesticide analysis (Lindane/ECD)	Max. 5 ng/l
Pesticide analysis (Ethylparathion/PND)	Max. 10 ng/l

Cat. No.	Pk	Pack type
83645.290	1 l	Glass bottle
83645.320	2,5 l	Glass bottle

Water HiPerSolv CHROMANORM®, gradient grade for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Colouration	Max. 10 APHA
Specific conductivity (25°C)	Max. 1 µS/cm
Evaporation residue	Max. 0.0005 %
Fluorescence (as quinine) (254 nm)	Max. 1 ppb
Fluorescence (as quinine) (365 nm)	Max. 1 ppb
Gradient grade (220 nm)	Max. 5 mAU
Gradient grade (254 nm)	Max. 2 mAU
Conforms to BDH 15273	Passes test

Cat. No.	Pk	Pack type
83650.320	2,5 l	Glass bottle

Water HiPerSolv CHROMANORM® for HPLC

Filtered 0.2 µm filter, packaged under nitrogen

Control by HPLC	Passes test
Non-volatile residue	Max. 5 ppm

Cat. No.	Pk	Pack type
23595.294	1 l	Glass bottle
23595.328	2,5 l	Glass bottle
23595.400	4 l	Glass bottle
23595.465	25 l	Steel drum

Water AnalaR NORMAPUR® analytical reagent

Water for laboratory use, Grade 3.

Produced by reversed osmosis and CDI

Substances reducing $KMnO_4$	Passes test	Conductivity (at filling)	Max. 0.05 µS/cm
pH (25°C)	5.0 to 7.5	Evaporation residue	Max. 1 ppm
Ignition residue	Max. 1 ppm	Silica	Max. 0.1 ppm
Cl (Chloride)	Max. 0.05 ppm	F (Fluoride)	Max. 0.05 ppm
NH_4 (Ammonium)	Max. 0.2 ppm	NO_3 (Nitrate)	Max. 0.01 ppm
PO_4 (Phosphate)	Max. 0.01 ppm	SO_4 (Sulphate)	Max. 0.1 ppm
Ag (Silver)	Max. 0.0004 ppm	Al (Aluminium)	Max. 0.002 ppm
As (Arsenic)	Max. 0.002 ppm	Au (Gold)	Max. 0.001 ppm
B (Boron)	Max. 0.005 ppm	Ba (Barium)	Max. 0.001 ppm
Be (Beryllium)	Max. 0.002 ppm	Bi (Bismuth)	Max. 0.001 ppm
Ca (Calcium)	Max. 0.05 ppm	Cd (Cadmium)	Max. 0.001 ppm
Co (Cobalt)	Max. 0.001 ppm	Cr (Chromium)	Max. 0.0004 ppm
Cu (Copper)	Max. 0.0004 ppm	Fe (Iron)	Max. 0.001 ppm
Ga (Gallium)	Max. 0.004 ppm	Ge (Germanium)	Max. 0.001 ppm
In (Indium)	Max. 0.001 ppm	K (Potassium)	Max. 0.05 ppm
Li (Lithium)	Max. 0.002 ppm	Mg (Magnesium)	Max. 0.005 ppm
Mn (Manganese)	Max. 0.0004 ppm	Mo (Molybdenum)	Max. 0.002 ppm
Na (Sodium)	Max. 0.1 ppm	Ni (Nickel)	Max. 0.0004 ppm
Pb (Lead)	Max. 0.001 ppm	Pd (Palladium)	Max. 0.008 ppm
Pt (Platinum)	Max. 0.001 ppm	Sb (Antimony)	Max. 0.001 ppm
Se (Selenium)	Max. 0.0001 ppm	Sn (Tin)	Max. 0.001 ppm
Sr (Strontium)	Max. 0.0004 ppm	Ti (Titanium)	Max. 0.001 ppm
Tl (Thallium)	Max. 0.00005 ppm	V (Vanadium)	Max. 0.001 ppm
Zn (Zinc)	Max. 0.004 ppm	Zr (Zirconium)	Max. 0.001 ppm
ISO Standard Water Grade 3	Passes test		

Cat. No.	Pk	Pack type
102922B	2,5 l	Plastic bottle
102923C	5 l	Plastic container
102926D	10 l	Plastic drum
102927G	10 l	Bag-in-box (Cubitainer)
102928H	25 l	Plastic drum

Water Reag. Ph. Eur. 1095502 carbon dioxide free

Cat. No.	Pk	Pack type
87959.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Reag. Ph. Eur. 1095500

Cat. No.	Pk	Pack type
87957.360	5 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Reag. Ph. Eur. 1095501 ammonium free

Cat. No.	Pk	Pack type
87958.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Reag. Ph. Eur. 1095503 for chromatography

Cat. No.	Pk	Pack type
87960.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Reag. Ph. Eur. 1095506 nitrate free

Cat. No.	Pk	Pack type
87961.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Reag. Ph. Eur. 1095507 particle free

Cat. No.	Pk	Pack type
87962.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Water Ph. Eur., USP, NF, purified

Appearance	Clear colourless liquid
Conductivity (20°C) (on line)	Max. 1.1 µS/cm
NO_3 (Nitrate)	Max. 0.2 ppm
Heavy metals (as Pb)	Max. 0.1 ppm
Acidity or alkalinity	Passes test Ph.Eur.
Oxidisable substances	Passes test Ph.Eur.
Cl (Chloride)	Passes test Ph.Eur.
SO_4 (Sulphate)	Passes test Ph.Eur.
NH_4 (Ammonium)	Max. 0.2 ppm
Calcium and magnesium	Passes test Ph.Eur.
Residue on evaporation	Max. 0.001 %
Microbial contamination	Passes test Ph.Eur.
Total organic carbon (TOC) (on line)	Max. 50 ppb

Cat. No.	Pk	Pack type
90200.9010	10 l	Plastic drum
90200.9025	25 l	Plastic drum
90200.9200	200 l	Plastic drum

Water GPR RECTAPUR®

Acidity or alkalinity	Passes test
Oxidisable substances	Passes test
Conductivity (20°C)	Max. 1.5 µS/cm
Evaporation residue	Max. 1 ppm
Heavy metals (as Pb)	Max. 0.1 ppm
Cl (Chloride)	Max. 0.1 ppm
NH_4 (Ammonium)	Max. 0.2 ppm
NO_3 (Nitrate)	Max. 0.2 ppm
SO_4 (Sulphate)	Max. 1 ppm
Ca (Calcium)	Max. 0.1 ppm
Na (Sodium)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
83612.360	5 l	Plastic container
83612.400	10 l	Bag-in-box (Cubitainer)
83612.410	10 l	Plastic drum
83612.460	25 l	Plastic drum

VWR CHEMICALS Water, high purity for sequencing, sterile

Water with high purity, low conductivity, RNase and DNase free, sterile, ideal for DNA sequencing.

Bioburden	PASS
DNase	NONE
Protease	NONE
RNase	NONE

Cat. No.	Pk	Pack type
K683-25ML	25 ml	Plastic bottle
K683-100ML	100 ml	Plastic bottle
K683-4L	4 l	Bag-in-box (Cubitainer)

VWR CHEMICALS Water for biotechnology, sterile

Sterile, nuclease-free water treated with diethylpyrocarbonate (DEPC) for nucleic acid applications.

DNase	NONE
Protease	NONE
RNase	NONE
Sterility	PASS

Cat. No.	Pk	Pack type
E476-100ML	100 ml	Plastic bottle
E476-500ML	500 ml	Plastic bottle
E476-1L	1 l	Plastic bottle

Water Molecular biology grade

Osmolality (mOsm/kg)	Max. 3
DNases	Not detected
RNases	Not detected
Proteases	Not detected

Cat. No.	Pk	Pack type
445847D	10 l	Bag-in-box (Cubitainer)

Water nuclease-free

Water, nuclease-free, is packed from Molecular biology grade (RNase, DNase and protease tested) water and sterile filled into irradiated bottles.

Material filled using VWR article 44584 ..... Passes test
Sterile filling conditions used ..... Passes test
Irradiated packaging used ..... Passes test

Cat. No.	Pk	Pack type
436912C	100 ml	Plastic bottle

Water TECHNICAL, demineralized

Conductivity (20°C) (at production) ..... Max. 1.5 µS/cm

Cat. No.	Pk	Pack type
23597.405	10 l	Bag-in-box (Cubitainer)
23597.410	10 l	Plastic drum
23597.440	20 l	Plastic drum
23597.553	200 l	Plastic drum

Water-D2

See Deuterium oxide p.138

Water bath protective agent, Aquaresist

Prevents the growth of algae and bacteria in baths and circulating thermostats, for optimally hygienic working conditions.

- Durable. Effective for weeks, as displayed by a colour indicator
- Economical. Low consumption - only 1 ml solution per 1 litre of water

Description	Pk	Cat. No.
Water bath protective agent, Aquaresist	100 ml	462-7000

Water blue 6B

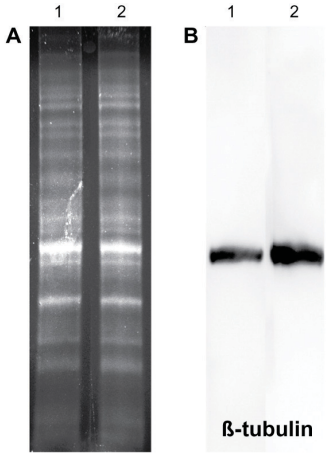
See Methyl blue p.289

Blocking reagents, Bio-Block™ in PBS or TBS

Membrane blocking agents in 1X PBS/TBS. 0,5% Hammerstein casein in 1X PBS/TBS.

Description	Pk	Cat. No.
Bio-Block™ in PBS	1 l	E671-1L
Bio-Block™ in TBS	1 l	E667-1L

RapidBlock™ solution, 10X



RapidBlock™ solution reduces blocking time to 5 minutes for Western and dot blotting procedures on PVDF and nitrocellulose membranes. This protein-free formulation minimises cross-reactivity and non-specific antibody binding, generating blots with low background and enhanced signal-to-noise ratio. Results with RapidBlock™ meet or exceed those obtained with buffers containing dried milk or BSA, which both require 1 hour of blocking time.

- Only 5 minutes for PVDF or nitrocellulose blocking
- Reduce background and cross-reactivity
- Enhance chemiluminescent signals
- Protein-free formulation

Description	Pk	Cat. No.
RapidBlock™ solution, 10X	15 ml	M325-15ML
RapidBlock™ solution, 10X	100 ml	M325-100ML

This product is not available in all countries. Please check with your local VWR International office or supplier.

Rapid Transfer Buffer, 10X

Rapid Transfer Buffer is a simple, single component system for quick and efficient transfer of proteins from SDS-PAGE gels to membranes for Western blotting applications. Transfer is completed in 10 or 20 minutes using a standard semi-dry or wet transfer apparatus, respectively. Rapid Transfer Buffer is a methanol-free, non-hazardous formulation that is compatible with PVDF and nitrocellulose membranes. The transfer efficiency is equivalent to that observed when using a Tris-Glycine-Methanol transfer buffer.

- Fast, efficient transfer in 10 to 20 minutes
- Utilises standard transfer equipment
- Non-hazardous formulation
- Transfers to PVDF and nitrocellulose from multiple types of gels

Description	Pk	Cat. No.
Rapid Transfer Buffer, 10X	1 l	N789-1L
Rapid Transfer Buffer, 10X	4 l	N789-4L

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein EZ-Vision®, 4X

Protein EZ-Vision® is non-hazardous, fluorescent reagent that produces instant visualisation of protein bands upon UV illumination of SDS-PAGE gels. Supplied in a 4X loading buffer, Protein EZ-Vision® co-migrates with the protein-SDS complex during electrophoresis. Post-run staining and destaining is completely eliminated and results can be visualised immediately after the run by placing the gel on a standard UV transilluminator.

- Immediate visualisation
- Sensitivity down to 100 ng protein
- Compatible with downstream Western blotting

Supplied in 2×1 ml tubes.

Description	Pk	Cat. No.
Protein EZ-Vision®, 4X	1 KIT	N836-KIT

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein stain, Blue BANDit™

Blue BANDit™ is a safer and more environmentally friendly alternative to traditional Coomassie® Blue staining procedures. This ready-to-use stain utilises deionised water for destaining, thereby reducing the handling of hazardous materials and solvent waste in the lab. The easy protocol requires a pre-wash in water for 15 minutes, 1 hour of staining in Blue BANDit™, and a final water wash for 30 minutes. As the bands appear on the gel, the background remains clear, providing excellent visibility of proteins. Provides sufficient material for 50 mini-gels (1 L) or 12 mini-gels (250 ml).

- Sensitivity below 20 ng of protein per band
- No methanol or acetic acid - uses water for destaining
- Ready to use

Description	Pk	Cat. No.
Protein stain, Blue BANDit™	250 ml	K217-250ML
Protein stain, Blue BANDit™	1 l	K217-1L

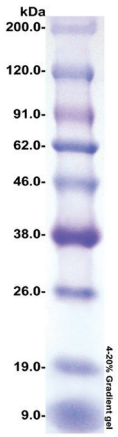
This product is not available in all countries. Please check with your local VWR International office or supplier.

Molecular weight markers, M.W. 12,3 - 78 kDa, calibration kit for SDS PAGE, Electran®

This product is tested for its suitability for use on Tris-based discontinuous buffer systems using a method based on that of Laemmli. It consists of a mixture of 6 electrophoretically homogeneous proteins.

Description	Pk	Cat. No.
Molecular weight markers, calibration kit for SDS PAGE	2 mg	442642L

Protein MW markers, BlueStep™ broad range, pre-stained



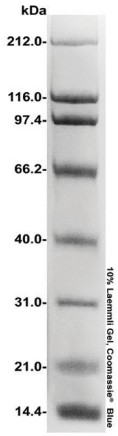
BlueStep™ protein molecular weight marker, broad range, pre-stained has 9 bands ranging from 9,0 to 200,0 kDa. Pre-stained bands are easily transferred to blotting membranes for use in Western blotting. There is sufficient material for 50 assays.

- 9 bands ranging from 9,0 to 200,0 kDa
- Monitor real-time conditions during electrophoresis

Description	Pk	Cat. No.
Protein MW markers, BlueStep™ broad range, pre-stained	0,5 ml	K973-0.5ML

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, wide range



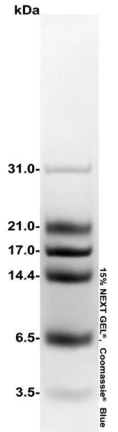
Protein molecular weight marker, wide range offers 8 bands ranging from 14,4 - 212,0 kDa. There is sufficient material for 100 - 150 assays.

- 8 bands ranging from 14,0 to 212,0 kDa
- Ideal for high or low molecular weight applications

Description	Pk	Cat. No.
Protein MW markers, wide range	500 µl	K494-500UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, low range



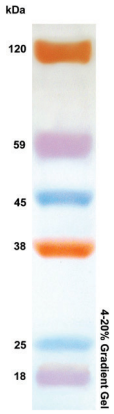
Protein molecular weight marker, low range offers 6 bands ranging from 3,5 to 31,0 kDa. There is sufficient material for 40 assays.

- 6 bands ranging from 3,5 kDa to 31,0 kDa
- Excellent for gels separating low molecular weight proteins and polypeptides

Description	Pk	Cat. No.
Protein MW markers, low range	200 µl	K880-200UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, Prism



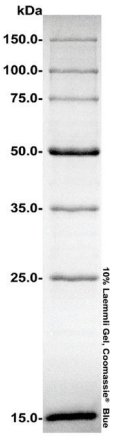
The Prism protein marker contains 6 purified proteins stained orange, blue, and violet for easy molecular weight estimation of samples. The bands ranging from 19 to 130 kDa can simplify monitoring protein migration during electrophoresis, and subsequently assess protein transfer efficiency to a blotting membrane. Prism protein marker is ready to load and may be applied to lab-prepared or commercial pre-cast gels. Sufficient material for 50 - 100 lanes.

- 6 bands ranging from 19 to 130 kDa
- 3 vibrant colours for easy band identification

Description	Pk	Cat. No.
Prism protein marker	500 µl	1B1349-500UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, Precise™



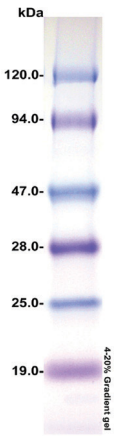
Precise™ protein molecular weight marker offers 7 bands ranging from 15,0 - 150,0 kDa. There is sufficient material for 40 assays.

- 7 bands ranging from 15,0 to 150,0 kDa
- Premixed with loading buffer

Description	Pk	Cat. No.
Protein MW markers, Precise™	200 µl	J383-200UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, BlueStep™ low range, pre-stained



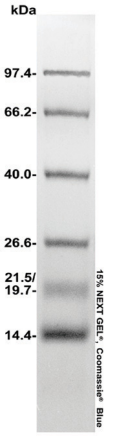
BlueStep™ protein molecular weight marker, low range, pre-stained has 6 bands ranging from 19,0 to 120,0 kDa. Pre-stained bands are easily transferred to blotting membranes for use in Western blotting. There is sufficient material for 50 assays.

- 6 bands ranging from 19,0 to 120,0 kDa
- Monitor real-time running conditions during electrophoresis

Description	Pk	Cat. No.
Protein MW markers, BlueStep™ low range, pre-stained	0,5 ml	K972-0.5ML

This product is not available in all countries. Please check with your local VWR International office or supplier.

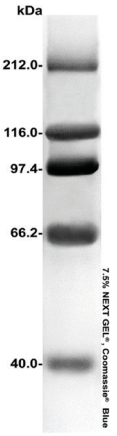
Protein MW markers, mid/low range



Description	Pk	Cat. No.
Protein MW markers, mid/low range	200 µl	J450-200UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

Protein MW markers, high range



High range protein molecular weight marker offers 5 bands ranging from 40,0 - 212,0 kDa. The 200 µl size provides sufficient material for 40 assays.

- 5 bands ranging from 40,0 to 212,0 kDa
- Ideal for polyacrylamide gel concentrations from 6% - 8% (37.5:1 Acryl/Bis)

Description	Pk	Cat. No.
Protein MW markers, high range	200 µl	J449-200UL

This product is not available in all countries. Please check with your local VWR International office or supplier.

White Spirit 150-200°C

Stoddard solvent 150-200°C

Danger
H350 H340 H304
P201 P281 P301+P310 P331 P308+P313

CAS 8052-41-3
Index 649-345-00-4
EINECS: 232-489-3
UN: 3295
ADR 3,III
Flash Pt: 42 °C

Restricted to professional users.
Density: 0.77 g/cm^3 (20 °C)
Boiling Pt: 150 to 200 °C (1013 hPa)

White Spirit 150-200°C SPECTRONORM® for atomic absorption spectroscopy

Density (20/4)	0.750 to 0.790
Al (Aluminium)	Max. 0.02 ppm
Ba (Barium)	Max. 0.05 ppm
Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.005 ppm
Cr (Chromium)	Max. 0.005 ppm
Cu (Copper)	Max. 0.2 ppm
Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.02 ppm
Mn (Manganese)	Max. 0.005 ppm
Mo (Molybdenum)	Max. 0.005 ppm
Na (Sodium)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.005 ppm
Zn (Zinc)	Max. 0.1 ppm

Cat. No.	Pk	Pack type
141976Y	2,5 l	Glass bottle

White Spirit 150-200°C TECHNICAL

n 20/D	1.425 to 1.450
Benzene	Max. 10 ppm

Cat. No.	Pk	Pack type
28963.368	5 l	Fluorinated plastic bottle

Wijs reagent

See Iodine trichloride (Wijs'reagent) p.246

Wintergreen Oil

See Methyl salicylate p.293

Wolframophosphoric acid hydrate

See Phosphotungstic acid hydrate p.364

Wood alcohol

See Methanol p.285

Wool fat

See Lanolin p.261

Wort Agar

See Microbiology

Wright's Eosin-Methylene blue

Eosin-Methylene blue dye Wright

Warning
H302 H319
P280 P301+P312 P305+P351+P338

CAS 68988-92-1
EINECS: 273-541-5
Density: 0.8 g/cm^3 (20 °C)
Storage Temperature: Ambient temperature

Wright's Eosin-Methylene blue GURR® for microscopical staining

IVD

Identity (UV/VIS-Spectrum)	Passes test
Absorption maximum λ 1 (Methanol)	about 648 nm
Absorption maximum λ 2 (Methanol)	about 523 nm
Spec. Absorptivity A 1%/1cm (λ1max; 0.0005 %; methanol)	about 1100 - 1300
Spec. Absorptivity A 1%/1cm (λ2max; 0.0005 %; methanol)	about 600 - 700
Suitability for microscopy	passes test

Cat. No.	Pk	Pack type
340804U	25 g	Glass bottle

Technical data sheet and instructions available on vwr.com

Wright's Stain

See Wright's Eosin-Methylene blue p.543

X-Gal (5-Bromo-4-chloro-3-indolyl-ß-D-galactopyranoside)

BCIG

CAS 7240-90-6
EINECS: 230-640-8

$C_{14}H_{15}BrClNO_6$
M.W. 312.64 g/mol
Melting Pt: 237 to 239 °C
Storage Temperature: -20°C

X-Gal (5-Bromo-4-chloro-3-indolyl-ß-D-galactopyranoside), ultrapure

Used in conjunction with IPTG to identify bacterial colonies that contain recombinant plasmids by blue/white selection.

Blank (A620; 0.1 %, PO_4, pH 7.3) 0.01
Identification ..... PASS
Purity (Enzymatic) ..... 99.0 %
Solubility (2 %, DMF) ..... PASS
Specific Rotation (0.1 %, 50 % DMF) ..... -64 to -56 °

Cat. No.	Pk	Pack type
0428-100MG	100 mg	Glass bottle
0428-1G	1 g	Glass bottle

X-Gal (5-Bromo-4-chloro-3-indolyl-ß-D-galactopyranoside)

X-Gal is a chromogenic substrate for ß-Galactosidase that forms an intense blue precipitate. Used in conjunction with IPTG in a colorimetric assay, X-Gal allows differentiation of recombinants from non recombinants in cloning experiments with vectors containing the lacZ gene. It is also used in microbiology to detect microorganisms which have ß-Galactosidase activity.

Assay ..... Min. 98 %
Identification ..... Passes test
Appearance ..... White crystalline powder
Spec.opt. rotation (1 %; DMF/water 50/50) ..... 60 to 64 °
Water ..... Max. 1 %

Cat. No.	Pk	Pack type
437132J	1 g	Glass bottle for solids

X-GAL - IPTG ready solution

X-GAL - IPTG ready solution for biotechnology

Sterile, ready-to-use, stable IPTG-X-Gal solution available in a dropper bottle for convenient dispensing. Also available in standard tubes. Stable at 4 °C up to 6 months. Contains no hazardous or toxic solvents.

Functional Growth Test ..... PASS

Cat. No.	Pk	Pack type
N714-1.5ML	1,5 ml	Plastic tube
N714-10ML	10 ml	Plastic bottle

X-GlcA ((5-Bromo-4-chloro-3-indolyl-ß-D-glucuronide) cyclohexylammonium salt)

CAS 114162-64-0

$C_{20}H_{26}BrClN_2O_7$
M.W. 521.79 g/mol
Melting Pt: 230 °C
Storage Temperature: -20°C

X-GlcA ((5-Bromo-4-chloro-3-indolyl-ß-D-glucuronide) cyclohexylammonium salt), ultrapure

Chromogenic substrate for the detection of β-glucuronidase. Commonly used to detect the GUS gene in bacterial colonies.

Identification (IR) ..... PASS
Solubility (1 %, DMF/Water 1:1) ..... PASS
Specific Rotation ..... -90 to -86 °
Thin Layer Chromatography ..... ONE SPOT

Cat. No.	Pk	Pack type
0919-5MG	5 mg	Glass bottle

X-GlcA ((5-Bromo-4-chloro-3-indolyl-ß-D-glucuronide) cyclohexylammonium salt) Molecular biology grade

(5-Bromo-4-chloro-3-indolyl-ß-D-glucuronide) cyclohexylammonium salt (X-GlcA) is a chromogenic substrate for detection of the ß-glucuronidase (GUS) gene, producing a blue colour in GUS+ bacterial colonies.

Appearance ..... White powder
Solubility in dimethylformamide (2 %) ..... Clear and colourless
Assay ..... TLC (single spot)
Optical rotation ..... -92.0 to -88.0°
Water ..... Max. 3.5 %
1H-NMR ..... Passes test

Cat. No.	Pk	Pack type
438542E	100 mg	Glass bottle

XIAMETER® silicone fluid

See Silicone - Fluids DOW CORNING® p.544

XLD agar

See Microbiology

XLT4 agar

See Microbiology

Xylene alternative for histology

See Safesolv p.413

Xylene (mixture of isomers)

Dimethylbenzene

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 1330-20-7
Index 601-022-00-9
EINECS: 215-535-7
UN: 1307
ADR 3,III
Flash Pt: 25 °C

Not to be used as power or heating fuel.

$C_6H_4(CH_3)_2$
M.W. 106.17 g/mol
Density: 0.86 to 0.88 g/cm³ (20 °C)
Boiling Pt: 140 °C (1013 hPa)
Melting Pt: -34 to 34 °C
Storage Temperature: Ambient temperature

Xylene (mixture of isomers) AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay (mix of 3 isomers + ethylbenzene)	Min. 98.5 %
Acidity or alkalinity	Max. 0.0002 meq/g
Colouration	Max. 10 APHA
Density (20/20)	0.866 to 0.868
Substances discoloured by H_2SO_4	Max. 1600 APHA
Ethylbenzene	Max. 25 %
Thiophene	Max. 1 ppm
Total S (as SO_4)	Max. 5 ppm
Al (Aluminium)	Max. 0.05 ppm
Ba (Barium)	Max. 0.05 ppm
Cd (Cadmium)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm
Fe (Iron)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.05 ppm
Pb (Lead)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.05 ppm
Conforms to Reag. Ph.Eur.	Passes test
IR Spectrum	Passes test
Boiling point	137 to 141 °C
Density (20/4)	0.865 to 0.867
n 20/D	1.495 to 1.499
Benzene	Max. 0.02 %
Evaporation residue	Max. 10 ppm
Toluene	Max. 1.0 %
Water	Max. 0.03 %
B (Boron)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.2 ppm
Co (Cobalt)	Max. 0.01 ppm
Cu (Copper)	Max. 0.02 ppm
Mg (Magnesium)	Max. 0.05 ppm
Ni (Nickel)	Max. 0.01 ppm
Sn (Tin)	Max. 0.05 ppm
Conforms to ACS	Passes test

Cat. No.	Pk	Pack type
28975.291	1 l	Glass bottle
28975.325	2,5 l	Glass bottle
28975.360	5 l	Fluorinated plastic bottle
28975.462	25 l	Metal drum
28975.553	200 l	Metal drum

Xylene (mixture of isomers), anhydrous (max. 0.005% H_2O) AnalaR NORMAPUR® analytical reagent

Appearance	Clear colourless liquid
Assay (calculated as mixture of isomers)	Min. 99.5 %
Water (K.F.)	Max. 0.005 %
Toluene	Max. 1 %
Acidity or alkalinity	Max. 0.0002 meq/g
B (Boron)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.5 ppm
Co (Cobalt)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm
Mg (Magnesium)	Max. 0.1 ppm
Ni (Nickel)	Max. 0.02 ppm
Sn (Tin)	Max. 0.1 ppm
Total S (Sulphur)	Max. 5 ppm
Colour value	Max. 10 APHA
Residue on evaporation	Max. 0.001 %
Benzene	Max. 0.1 %
Thiophene	Max. 0.0001 %
Al (Aluminium)	Max. 0.5 ppm
Ba (Barium)	Max. 0.01 ppm
Cd (Cadmium)	Max. 0.05 ppm
Cr (Chromium)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.05 ppm

Cat. No.	Pk	Pack type
28976.294	1 l	Glass bottle

Xylene (mixture of isomers) TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
28973.294	1 l	Glass bottle
28973.328	2,5 l	Glass bottle
28973.363	5 l	Fluorinated plastic bottle
28973.465	25 l	Metal drum
28973.556	200 l	Metal drum

o-Xylene

1,2-Dimethylbenzene

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 95-47-6
Index 601-022-00-9
EINECS: 202-422-2
UN: 1307
ADR 3,III
Flash Pt: 17 °C (closed cup)

C_8H_{10}
M.W. 106.17 g/mol
Density: 0.88 g/cm³ (20 °C)
Boiling Pt: 144 °C (1013 hPa)
Melting Pt: -25 °C
Storage Temperature: Ambient temperature

o-Xylene GPR RECTAPUR®

Assay (on anhydrous substance)	Min. 99 %
IR Spectrum	Passes test
Density (20/4)	0.870 to 0.890

Cat. No.	Pk	Pack type
28979.294	1 l	Glass bottle

p-Xylene

1,4-Dimethylbenzene

Danger
H226 H312+H332 H315
P210 P243 P280 P302+P352 P304+P340 P309+P311

CAS 106-42-3
Index 601-022-00-9
EINECS: 203-396-5
UN: 1307
ADR 3,III
Flash Pt: 25 °C

$C_6H_4(CH_3)_2$
M.W. 106.17 g/mol
Density: 1.096 g/cm³ (20 °C)
Boiling Pt: 138.3 °C (1013 hPa)
Melting Pt: 13 °C
Storage Temperature: Ambient temperature

p-Xylene GPR RECTAPUR®

Assay	Min. 99 %
Distillation range	137 to 139 °C
Solidification point	12 to 14 °C
n 20/D	1.496 to 1.498
Evaporation residue	Max. 50 ppm

Cat. No.	Pk	Pack type
28984.292	1 l	Glass bottle

Xylene Brilliant Cyanine G

See Coomassie® Brilliant Blue G-250 ..... p.121

Xylène Cyanole

Sodium hydrogen 4-[[4-(ethylamino)-m-tolyl][4-(ethylimino)-3-methylcyclohexa-2,5-dien-1-ylidene]methyl]benzene-1,3-disulphonate , Acid Blue 147

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 2650-17-1
EINECS: 220-167-5

$C_{25}H_{27}N_2NaO_6S_2$
M.W. 538.61 g/mol
Melting Pt: 295 °C
Storage Temperature: Ambient temperature

Xylene Cyanole FF, ultrapure

DNase	NONE
Em (614 nm, Water)	30000
Identification	PASS
Lambda Max	612 - 616 nm
Loss on Drying	10.0 %
RNase	NONE

Cat. No.	Pk	Pack type
0819-20G	20 g	Glass bottle

Xylenol orange tetrasodium salt

Xylenol orange water soluble

CAS 3618-43-7
EINECS: 222-805-8

$C_{31}H_{28}N_2Na_4O_{13}S$
M.W. 760.63 g/mol
Melting Pt: ~ 210 °C
Storage Temperature: Ambient temperature

Xylenol orange tetrasodium salt TECHNICAL

Identification ..... Passes test

Cat. No.	Pk	Pack type
26086.103	5 g	Glass bottle

Xylenol orange triturate 1% in potassium nitrate

Warning
H272
P210 P280

CAS 1611-35-4
EINECS: 216-553-8
UN: 1486
ADR 5.1,III

$C_{31}H_{32}N_2O_{13}S$
M.W. 672.67 g/mol
Storage Temperature: Ambient temperature

Xylenol orange triturate 1% in potassium nitrate Reag. Ph. Eur. 1096301

Cat. No.	Pk	Pack type
87963.150	50 g	Plastic bottle for solids

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Xylenol orange water soluble

See Xylenol orange tetrasodium salt p.546

D(+)-Xylose

CAS 58-86-6
EINECS: 200-400-7

$C_5H_{10}O_5$
M.W. 150.13 g/mol
Density: 1.525 g/cm^3 (20 °C)
Boiling Pt: 331 °C (1013 hPa)
Melting Pt: 154 °C
Storage Temperature: Ambient temperature

D(+)-Xylose GPR RECTAPUR®

Melting point ..... 145 to 150 °C
Specific optical rotation (10 %; water) ..... 18 to 20 °
Ignition residue (SO_4) ..... Max. 0.2 %
Loss on drying (100°C) ..... Max. 0.2 %

Cat. No.	Pk	Pack type
29013.237	250 g	Plastic bottle for solids

YPD Media, liquid, for biotechnology

YPD Media, liquid, for biotechnology

A complete medium for the propagation and maintenance of yeast. The composition of YPD is (w/v) 1% Yeast Extract, 2% Peptone, and 2% D-Glucose.

Bioburden (Milliflex)..... NONE
pH @25 °C .....6.14 - 7.14
Refractive Index .....1.339 - 1.345
Specific Gravity @20 °C .....1.0178 - 1.0190

Cat. No.	Pk	Pack type
1B1493-1L	1 l	Plastic bottle

Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-64-4
EINECS: 231-173-2
UN: 3264
ADR 8,III

Yb
M.W. 173.04 g/mol
Density: 1.013 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid (from Yb_2O_3) ARISTAR® standard for ICP

Yb_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456344C	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Ytterbium standard solution, 1,000 mg/l Yb in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86724.180	100 ml	Plastic bottle
86724.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-65-5
EINECS: 231-174-8
UN: 3264
ADR 8,III

Y
M.W. 88.91 g/mol
Storage Temperature: Ambient temperature

Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid (from Y) ARISTAR® standard for ICP-MS

Y in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456982D	100 ml	Plastic bottle

Supplied with certificate of analysis.

Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP

Y_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456362E	100 ml	Plastic bottle
456364G	500 ml	Plastic bottle

Supplied with certificate of analysis.

NEW Yttrium standard solution, 1,000 mg/l Y in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86723.180	100 ml	Plastic bottle
86723.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Yttrium standard solution, 10,000 mg/l Y in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-65-5
EINECS: 231-174-8
UN: 3264
ADR 8,III

Y
M.W. 88.91 g/mol
Storage Temperature: Ambient temperature

Yttrium standard solution, 10,000 mg/l Y in dil. nitric acid (from Y_2O_3) ARISTAR® standard for ICP

Y_2O_3 in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456372G	100 ml	Plastic bottle
456374Y	500 ml	Plastic bottle

Supplied with certificate of analysis.

Yttrium (III) chloride hexahydrate

Yttrium trichloride hexahydrate

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 10025-94-2
EINECS: 233-801-0

$YCl_3 \cdot 6H_2O$
M.W. 303.36 g/mol
Density: 2.18 g/cm³ (20 °C)
Boiling Pt: 1507 °C (1013 hPa)
Melting Pt: 153 °C

Yttrium (III) chloride hexahydrate GPR RECTAPUR®

Assay (calculated as Y_2O_3) ..... Min. 99.99 %

Cat. No.	Pk	Pack type
29029.106	5 g	Plastic bottle for solids

Yttrium oxide

See Diyttrium trioxide p.548

Yttrium trichloride hexahydrate

See Yttrium (III) chloride hexahydrate p.548

Diyttrium trioxide

Yttrium (III) oxide , Yttrium oxide

CAS 1314-36-9
EINECS: 215-233-5

Y_2O_3
M.W. 225.81 g/mol
Density: 5.01 g/cm³ (20 °C)
Boiling Pt: 4300 °C (1013 hPa)
Melting Pt: 2410 °C

di-Yttrium trioxide GPR RECTAPUR®

Assay ..... Min. 99.9 %

Cat. No.	Pk	Pack type
29033.101	5 g	Glass bottle

Z-DEVD-pNA

Z (carbobenzoxy)-Asp-Glu-Val-Asp-pNA (p-nitroanilide)

$C_{32}H_{38}N_6O_{14}$

Storage Temperature: (-20) - 0°C

Z-DEVD-pNA, reagent grade

Colorimetric substrate for caspase-3 and related cysteine proteases.

Purity (HPLC) ..... > 95 %
Solubility (10mg/mL, DMSO) ..... PASS

Cat. No.	Pk	Pack type
N846-50MG	50 mg	Plastic tube

Zimmermann-Reinhardt's solution

Danger
H314
P280 P301+P330+P331 P305+P351+P338
P309+P310
UN: 1760
ADR 8,II
M.W. 223.06 g/mol

Zimmermann-Reinhardt's solution

Identification ..... Passes test

Cat. No.	Pk	Pack type
9110.1000	1 l	Glass bottle

Zinc

Danger
H260 H250 H410
P210 P222 P223 P231+P232 P280 P273 P335+P334

CAS 7440-66-6
Index 030-001-00-1
EINECS: 231-175-3
UN: 1436
ADR 4.3,II

Zn
M.W. 65.39 g/mol
Density: 7.13 g/cm³ (20 °C)
Boiling Pt: 907 °C (1013 hPa)
Melting Pt: 419.5 °C
Storage Temperature: Ambient temperature

Zinc, pellets AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.9 %
As (Arsenic) ..... Max. 0.1 ppm
Cu (Copper) ..... Max. 10 ppm
Pb (Lead) ..... Max. 50 ppm
Mean diameter ..... 3 to 8 mm
Cd (Cadmium) ..... Max. 30 ppm
Fe (Iron) ..... Max. 30 ppm
Sn (Tin) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
29080.238	250 g	Plastic bottle for solids
29080.295	1 kg	Plastic bottle for solids

Zinc, wires (reeled) AnalaR NORMAPUR® for the determination of arsenic

Mean diameter ..... 1 to 5 mm
Foreign heavy metals (as Pb) ..... Max. 100 ppm
As (Arsenic) ..... Max. 0.1 ppm
Cu (Copper) ..... Max. 100 ppm
Fe (Iron) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
83920.230	250 g	Plastic bottle for solids

Zinc, coarse powder AnalaR NORMAPUR® analytical reagent

Assay ..... Min. 99.9 %
Cd (Cadmium) ..... Max. 20 ppm
Fe (Iron) ..... Max. 0.02 %
Sn (Tin) ..... Max. 10 ppm
As (Arsenic) ..... Max. 0.1 ppm
Cu (Copper) ..... Max. 10 ppm
Pb (Lead) ..... Max. 50 ppm

Cat. No.	Pk	Pack type
29068.236	250 g	Plastic bottle for solids

Zinc, fine powder TECHNICAL

Stabilised with zinc oxide 6 %

Assay ..... Min. 97 %

Cat. No.	Pk	Pack type
29063.296	1 kg	Plastic bottle for solids
29063.365	5 kg	Plastic bottle for solids

Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 7440-66-6
EINECS: 231-175-3
UN: 3264
ADR 8,III

Zn
M.W. 65.39 g/mol
Storage Temperature: Ambient temperature

Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP-MS

Zn in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
457162C	100 ml	Plastic bottle

Supplied with certificate of analysis.

Zinc standard solution, 10,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP

Zn in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456392K	100 ml	Plastic bottle
456394M	500 ml	Plastic bottle

Supplied with certificate of analysis.

Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid

Warning
H319 H315 H412
P280 P273 P302+P352 P305+P351+P338

CAS 7440-66-6
EINECS: 231-175-3
UN: 3264
ADR 8,III

Zn
M.W. 65.39 g/mol
Storage Temperature: Ambient temperature

Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP-MS

Zn in 2 % HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456992F	100 ml	Plastic bottle

Supplied with certificate of analysis.

Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid (from Zn) ARISTAR® standard for ICP

Zn in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456382Y	100 ml	Plastic bottle
456384K	500 ml	Plastic bottle

Supplied with certificate of analysis.

Zinc standard solution, 1,000 mg/l Zn in dil. nitric acid AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
86725.180	100 ml	Plastic bottle
86725.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Zinc acetate dihydrate

Acetic acid zinc salt dihydrate , Zinc (II) acetate dihydrate , Zinc diacetate dihydrate

Warning
H302 H410
P273 P301+P312

CAS 5970-45-6
EINECS: 209-170-2
UN: 3077
ADR 9,III

$(H_3CCOO)_2Zn \cdot 2H_2O$
M.W. 219.51 g/mol
Density: 1.718 g/cm³ (20 °C)
Melting Pt: 237 °C
Storage Temperature: Ambient temperature

Zinc acetate dihydrate AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Insolubility in water	Max. 50 ppm
Not precipitated by $(NH_4)_2S$ (as SO_4)	Max. 0.25 %	Reducing substances (as HCOOH)	Max. 0.015 %
Cl (Chloride)	Max. 5 ppm	NH_4 (Ammonium)	Max. 10 ppm
NO_3 (Nitrate)	Max. 10 ppm	SO_4 (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm	Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 5 ppm	Pb (Lead)	Max. 20 ppm

Cat. No.	Pk	Pack type
29088.235	250 g	Plastic bottle for solids
29088.292	1 kg	Plastic bottle for solids

Zinc acetate dihydrate GPR RECTAPUR®

Assay	Min. 98 %
Cl (Chloride)	Max. 50 ppm
SO_4 (Sulphate)	Max. 0.02 %
Fe (Iron)	Max. 20 ppm
Pb (Lead)	Max. 100 ppm

Cat. No.	Pk	Pack type
29087.298	1 kg	Plastic bottle for solids

Zinc acetate, 0.25 mol/l, buffered with ammonium acetate, pH 6.4

Warning
H410
P273

CAS 557-34-6
EINECS: 209-170-2
UN: 3082
ADR 9,III

$(H_3CCOO)_2Zn$
Storage Temperature: Ambient temperature

Zinc acetate, 0.25 mol/l, buffered with ammonium acetate, pH 6.4 Reag. Ph. Eur. 1102301

Cat. No.	Pk	Pack type
87967.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Zinc carbonate basic

Warning
H400 H411
P273 P391 P501

CAS 51839-25-9
EINECS: 257-467-0

$Zn_{(x/2+y)}(OH)_x(CO3)_y$
M.W. 99.3947 to 125.4179

Zinc carbonate basic GPR RECTAPUR®

Assay (calculated as ZnO)	Min. 73 %
Heavy metals (as Pb)	Max. 100 ppm
Insolubility in diluted H_2SO_4	Max. 0.05 %
Cl (Chloride)	Max. 100 ppm
NO_3 (Nitrate)	Max. 100 ppm
SO_4 (Sulphate)	Max. 1.0 %
As (Arsenic)	Max. 3 ppm
Fe (Iron)	Max. 20 ppm

Cat. No.	Pk	Pack type
29110.290	1 kg	Plastic bottle for solids

Zinc chloride

Zinc (II) chloride

Danger
H302 H314 H335 H410
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 7646-85-7
Index 030-003-00-2
EINECS: 231-592-0
UN: 2331
ADR 8,III

$ZnCl_2$
M.W. 136.3 g/mol
Density: 2.91 g/cm³ (20 °C)
Boiling Pt: 732 °C (1013 hPa)
Melting Pt: 283 °C
Storage Temperature: Ambient temperature

Zinc chloride AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	98.0 to 100.5 %	Al + Ca + heavy metals + Fe + Mg	Passes test
Identification A	Passes test Ph.Eur.	Identification B	Passes test Ph.Eur.
Solution S	Passes test Ph.Eur.	pH (20°C; 10 %)	4.6 to 5.5
Insoluble substances	Max. 50 ppm	Oxide chloride (as ZnO)	Max. 1.20 %
Total N (Nitrogen)	Max. 20 ppm	NH_4 (Ammonium)	Max. 50 ppm
NO_3 (Nitrate)	Max. 30 ppm	SO_4 (Sulphate)	Max. 20 ppm
Ca (Calcium)	Max. 10 ppm	Cd (Cadmium)	Max. 5 ppm
Cu (Copper)	Max. 10 ppm	Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 0.02 %	Mg (Magnesium)	Max. 100 ppm
Na (Sodium)	Max. 50 ppm	Pb (Lead)	Max. 10 ppm
Conforms to ACS	Passes test	Conforms to Reag. Ph.Eur.	Passes test

Cat. No.	Pk	Pack type
29156.231	250 g	Plastic bottle for solids
29156.260	500 g	Plastic bottle for solids
29156.297	1 kg	Plastic bottle for solids

Zinc chloride TECHNICAL

Assay ..... Min. 97 %
Fe (Iron) ..... Max. 20 ppm
Pb (Lead) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
29126.294	1 kg	Plastic bottle for solids
29126.363	5 kg	Bucket (Plastic)

Zinc chloride (≥ 50%) in aqueous solution

Danger
H302 H314 H335 H410
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 7646-85-7
EINECS: 231-592-0
UN: 1840
ADR 8,III

$ZnCl_2$
Storage Temperature: Ambient temperature

Zinc chloride 71% in aqueous solution

Assay ..... Min. 71 %
Heavy metals (as Pb) ..... Max. 20 ppm
SO_4 (Sulphate) ..... Max. 0.02 %
Fe (Iron) ..... Max. 20 ppm

Cat. No.	Pk	Pack type
29142.290	1 l	Glass bottle

Zinc chloride 42% in aqueous solution TECHNICAL

Assay ..... Min. 42 %

Cat. No.	Pk	Pack type
29120.443	20 l	Plastic drum

Zinc chloride in formic acid (50-85%)

Danger
H302 H314 H335 H410
P280 P273 P301+P330+P331 P304+P340 P309+P310

CAS 7646-85-7
EINECS: 231-592-0

$ZnCl_2$
Storage Temperature: Ambient temperature

Zinc chloride-formic acid solution Reag. Ph. Eur. 1096601

Cat. No.	Pk	Pack type
87965.290	1 l	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Zinc diacetate dihydrate

See Zinc acetate dihydrate p.550

Zinc iodide and starch solution

Storage Temperature: Ambient temperature

Zinc iodide and starch solution Reag. Ph. Eur. 1096502

Cat. No.	Pk	Pack type
87964.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Zinc iodine chloride in aqueous solution

Danger
H302 H314 H335 H410
P280 P273 P301+P330+P331 P304+P340 P309+P310
Storage Temperature: Ambient temperature

Zinc iodine chloride in aqueous solution Reag. Ph. Eur. 1096602

Cat. No.	Pk	Pack type
87726.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

Zinc oxide light

Warning
H410
P273

CAS 1314-13-2
Index 030-013-00-7
EINECS: 215-222-5
UN: 3077
ADR 9,III

ZnO
M.W. 81.39 g/mol
Density: 5.6 g/cm³ (20 °C)
Boiling Pt: 2360 °C (1013 hPa)
Melting Pt: 1975 °C
Storage Temperature: Ambient temperature

Zinc oxide light TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
29199.295	1 kg	Plastic bottle for solids

Zinc oxide

Warning
H410
P273

CAS 1314-13-2
Index 030-013-00-7
EINECS: 215-222-5
UN: 3077
ADR 9,III

ZnO
M.W. 81.39 g/mol
Density: 5.61 g/cm³ (25 °C)
Melting Pt: 1975 °C
Storage Temperature: Ambient temperature

Zinc oxide AnalaR NORMAPUR® analytical reagent

Assay	Min. 99.0 %	Insolubility in diluted HCl	Max. 50 ppm
Substances reducing $KMnO_4$ (as O)	Max. 15 ppm	Not precipitated by $(NH_4)_2S$ (as SO_4)	Max. 0.25 %
Cl (Chloride)	Max. 10 ppm	NO_3 (Nitrate)	Max. 20 ppm
PO_4 (Phosphate)	Max. 20 ppm	SO_4 (Sulphate)	Max. 100 ppm
As (Arsenic)	Max. 1 ppm	Cu (Copper)	Max. 20 ppm
Fe (Iron)	Max. 5 ppm	Mn (Manganese)	Max. 10 ppm
Pb (Lead)	Max. 50 ppm		

Cat. No.	Pk	Pack type
29211.298	1 kg	Plastic bottle for solids

Zinc stearate

Stearic acid zinc salt

CAS 557-05-1
EINECS: 209-151-9
Flash Pt: 276 °C

$C_{36}H_{70}O_4Zn$
M.W. 632.34 g/mol
Density: 1.095 g/cm³ (20 °C)
Melting Pt: 140 °C
Storage Temperature: Ambient temperature

Zinc stearate Ph. Eur.

Assay (Zn)	10.0 to 12.0 %
Appearance	Pale white powder
Identification A	Passes test
Identification B	Passes test
Solution S	Passes test
Appearance of solution	Passes test
Appearance of solution of fatty acids	Passes test
Acidity or alkalinity	Passes test
Acid value of the fatty acids	195 to 210
Cl (Chloride)	Max. 250 ppm
SO_4 (Sulphate)	Max. 0.6 %
Cd (Cadmium)	Max. 5.0 ppm
Pb (Lead)	Max. 25.0 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
83563.370	5 kg	Bucket (Plastic)

Zinc stearate TECHNICAL

Identification	Passes test

Cat. No.	Pk	Pack type
29240.298	1 kg	Bucket (Plastic)

Zinc sulphate monohydrate

Danger
H302 H318 H410
P280 P273 P305+P351+P338 P309+P310

CAS 7446-19-7
Index 030-006-00-9
EINECS: 231-793-3
UN: 3077
ADR 9,III

$ZnSO_4 \cdot 1H_2O$
M.W. 179.47 g/mol
Density: 3.2 g/cm³ (20 °C)
Storage Temperature: Ambient temperature

Zinc sulphate monohydrate, purified

Assay	Min. 98 %
Pb (Lead)	Max. 100 ppm
Fe (Iron)	Max. 100 ppm

Cat. No.	Pk	Pack type
29245.262	500 g	Plastic bottle for solids

Zinc sulphate heptahydrate

Danger
H302 H318 H410
P280 P273 P305+P351+P338 P309+P310

CAS 7446-20-0
Index 030-006-00-9
EINECS: 231-793-3
UN: 3077
ADR 9,III

$ZnSO_4 \cdot 7H_2O$
M.W. 287.56 g/mol
Density: 1.97 g/cm³ (20 °C)
Melting Pt: 100 °C
Storage Temperature: Ambient temperature

Zinc sulphate heptahydrate AnalaR NORMAPUR® ACS, Reag. Ph. Eur. analytical reagent

Assay	Min. 99.5 %	Solution in water	Passes test
pH (20°C; 5 %)	4.4 to 6.0	Insolubility in water	Max. 100 ppm
Cl (Chloride)	Max. 5 ppm	Total N (Nitrogen)	Max. 5 ppm
As (Arsenic)	Max. 0.5 ppm	Ca (Calcium)	Max. 10 ppm
Cd (Cadmium)	Max. 5 ppm	Cu (Copper)	Max. 5 ppm
Fe (Iron)	Max. 5 ppm	K (Potassium)	Max. 10 ppm
Li (Lithium)	Max. 10 ppm	Mn (Manganese)	Max. 3 ppm
Na (Sodium)	Max. 10 ppm	Pb (Lead)	Max. 20 ppm
Sr (Strontium)	Max. 5 ppm	Conforms to BDH 10299	Passes test

Cat. No.	Pk	Pack type
29253.236	250 g	Plastic bottle for solids
29253.260	500 g	Plastic bottle for solids
29253.293	1 kg	Plastic bottle for solids
29253.460	25 kg	Bucket (Plastic)

Zinc sulphate heptahydrate Ph. Eur.

Assay	99.0 to 104.0 %
Appearance	White crystalline powder
Identification A	Passes test
Identification B	Passes test
Identification C	Passes test
Solution S	Passes test
Appearance of solution	Passes test
pH (5 %)	4.4 to 5.6
Cl (Chloride)	Max. 300 ppm
Fe (Iron)	Max. 100 ppm
Residual solvents	Passes test

Cat. No.	Pk	Pack type
29158.294	1 kg	Plastic bottle for solids
29158.363	5 kg	Plastic bottle for solids

Zinc sulphate heptahydrate GPR RECTAPUR®

Assay ..... Min. 99 %
Cl (Chloride) ..... Max. 0.03 %
Fe (Iron) ..... Max. 20 ppm
Pb (Lead) ..... Max. 100 ppm

Cat. No.	Pk	Pack type
29247.292	1 kg	Plastic bottle for solids
29247.361	5 kg	Plastic bottle for solids

Zinc sulphate heptahydrate TECHNICAL

Assay ..... Min. 98 %

Cat. No.	Pk	Pack type
29243.367	5 kg	Bucket (Plastic)

Zinc sulphate concentrated aqueous solution

Danger
H302 H318 H410
P280 P273 P305+P351+P338 P309+P310

CAS 7733-02-0
EINECS: 231-793-3
UN: 3082
ADR 9,III

$ZnSO_4$
Storage Temperature: Ambient temperature

Zinc sulphate 0.1 mol concentrated aqueous solution ConvoL NORMADOSE® volumetric solution

Dose for preparation of 1 litre of solution
Titer (20°C) ..... 0.0995 to 0.1005 mol/l

Cat. No.	Pk	Pack type
32080.605	60 ml	Plastic ampoule

Zinc sulphate (0.06 - < 0.15 mol/l; 0.06 - < 0.15 N) in aqueous solution

H411
P273

CAS 7733-02-0
EINECS: 231-793-3
UN: 3082
ADR 9,III

$ZnSO_4$
Storage Temperature: Ambient temperature

Zinc sulphate 0.1 mol/l (0.1 N) in aqueous solution AVS TITRINORM® volumetric solution

Titer (20°C; real value 0.2 % accuracy) ..... 0.0998 to 0.1002 mol/l

Cat. No.	Pk	Pack type
30498.296	1 l	Plastic bottle

Zirconium standard solution, 10,000 mg/l Zr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-67-7
EINECS: 231-176-9
UN: 3264
ADR 8,III

Zr
M.W. 91.22 g/mol
Storage Temperature: Ambient temperature

Zirconium standard solution, 10,000 mg/l Zr in dil. nitric acid ($ZrO(NO_3)_2$) ARISTAR® standard for ICP

$ZrO(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456414W	500 ml	Plastic bottle

Supplied with certificate of analysis.

Zirconium standard solution, 1,000 mg/l Zr in dil. nitric acid

Warning
H319 H315
P280 P302+P352 P305+P351+P338

CAS 7440-67-7
EINECS: 231-176-9
UN: 3264
ADR 8,III

Zr
M.W. 91.22 g/mol
Storage Temperature: Ambient temperature

Zirconium standard solution, 1,000 mg/l Zr in dil. nitric acid ($ZrO(NO_3)_2$) ARISTAR® standard for ICP

$ZrO(NO_3)_2$ in HNO_3

Traceable to SRM from NIST, tested in ISO Guide 34 /ISO17025 accredited laboratory.

Cat. No.	Pk	Pack type
456402S	100 ml	Plastic bottle

Supplied with certificate of analysis.

Zirconium standard solution, 1,000 mg/l Zr in 5% hydrochloric acid with hydrofluoric acid (max. 1%)

CAS 7440-67-7
EINECS: 231-176-9
UN: 1789
ADR 8,II

Zr
Storage Temperature: Ambient temperature

NEW

Zirconium standard solution, 1,000 mg/l Zr in 5% hydrochloric acid with hydrofluoric acid (max. 1%) AVS TITRINORM® standard for AAS

Cat. No.	Pk	Pack type
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86726.260	500 ml	Plastic bottle

Supplied with certificate of analysis.

Zirconyl nitrate in hydrochloric acid (10-25%)

Warning
H319 H335 H315
P280 P302+P352 P304+P340 P305+P351+P338
P309+P311

CAS 13826-66-9
EINECS: 237-529-3
UN: 1789
ADR 8,II

$ZrO(NO_3)_2$
Storage Temperature: Ambient temperature

Zirconyl nitrate 0.1% in hydrochloric acid 22% Reag. Ph. Eur. 1097201

Cat. No.	Pk	Pack type
87966.180	100 ml	Plastic bottle

Supplied with certificate of analysis. Normally manufactured to order. Please check with customer services.

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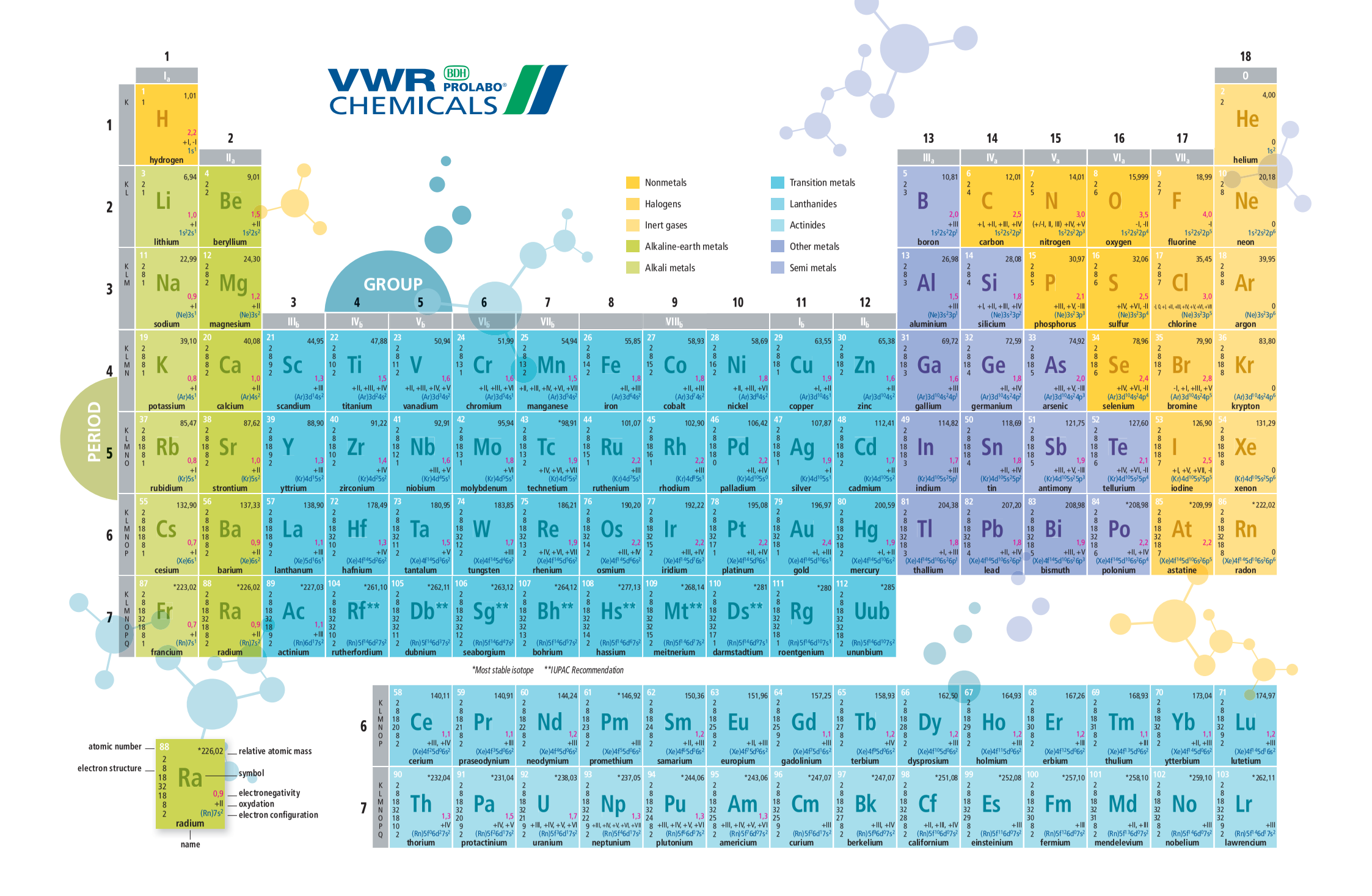
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Více než 160 let naši zákazníci hledají řešení, jak zvýšit kvalitu života. Naším cílem je objevit potřebný produkt a zároveň co nejvíce eliminovat složitost procesu, aby laboratoře a výrobci mohli pracovat lépe a rychleji.

Díky našemu rozsahu a zkušeným pracovníkům vynikáme v dodávání řešení, která zlepšují produktivitu, urychlují nové objevy a pomáhají při zavádění nových pracovních postupů.

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