CPAchem

The Experts in Custom-made Standards - Organic & Inorganic

Analytical Reagents and Standards

Pharmacopoeia products

ISO Guide 34 | ISO 17025 | ISO 9001

CPAchem

is the world leader

in Certified Reference Materials production (Custom and Stock) with both ISO Guide 34 and ISO/IEC 17025 accreditations.

The four secrets of our success are:

- ✓ High-technology
- ✓ High-experienced staff
- ✓ High-quality
- ✓ High-speed

Our scope covers:

Inorganic Certified Reference Materials (CRMs) for AAS, ICP, ICP/MS and Ion Chromatography

- Custom Inorganic CRMs - Single and Multi-components
- Inorganic stock CRMs - Single and Multi-components
- ICP and ICP/MS Internal standards
- AAS and ICP Modifiers, Buffers and Reagents
- IC Eluent concentrates

Organic Certified Reference Materials (CRMs) for GC and HPLC

- Custom Organic CRMs - Single and Multi-components
- CRMs acc. to ISO, EN, ASTM and EPA Methods
- Contaminant CRMs
- Single Component CRMs

Analytical Certified Reference Materials (CRMs) and Reagents

- Custom Analytical CRMs
- Volumetric CRMs
- Conductivity CRMs
- pH Buffer CRMs
- Reagents

What makes us different?

Our unique Computer-Aided-Manufacturing (CAM) Software, that:

- Surveys the stock availability and specifies the raw material to be purchased

- Specifies the proper source and controls through bare-codes (complete traceability)

- Calculates the needed weights and controls the gravimetric process on the analytical balances

- Evaluates the final data received by the instrumental analyses and calculates the certified values and uncertainties

- Creates the labels and certificates

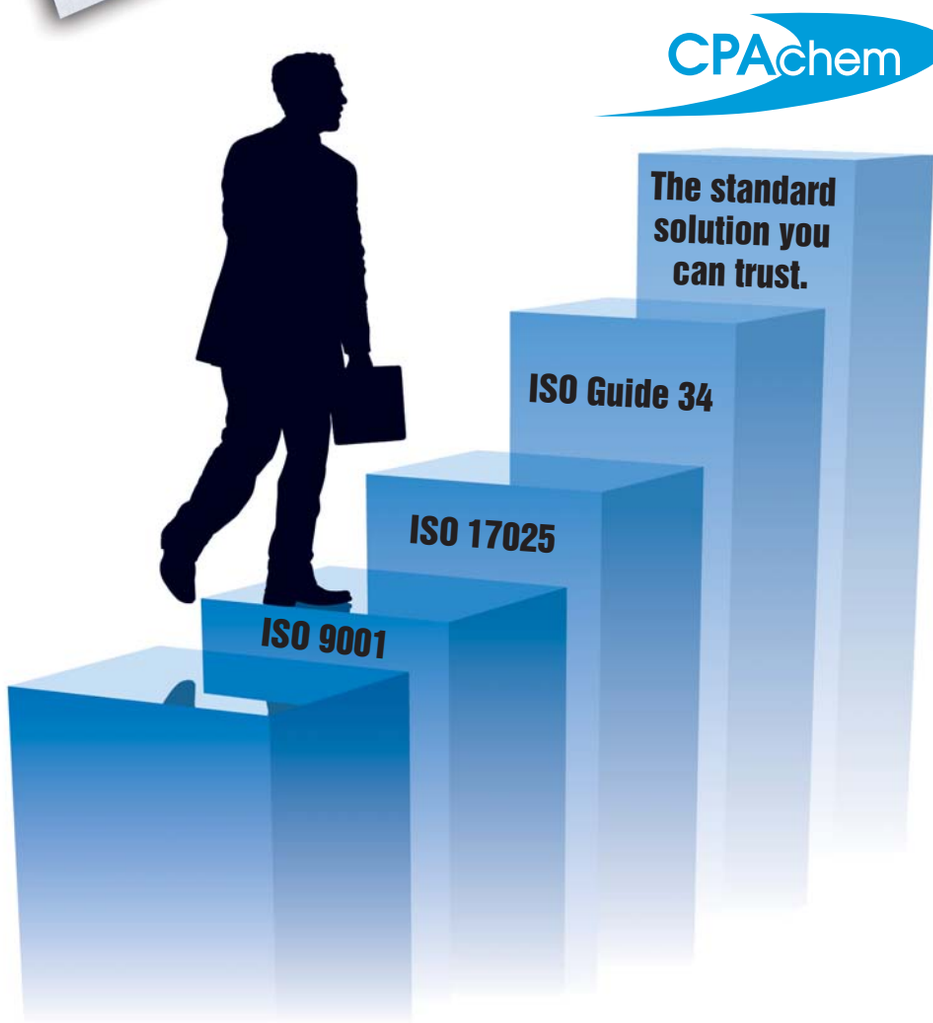
- Controls the products intended to be exported and prints all accompanying documents.

Recently we have expanded our range of Pharmacopoeia products adding a lot of new items and now we are the only one that offers the following products:

- ✓ European Pharmacopoeia (EP) Products
- ✓ US Pharmacopoeia (USP) reagents – **newly added!**
- ✓ British Pharmacopoeia (BP) reagents, test solutions and volumetric solutions - **newly added!**
- ✓ Japanese Pharmacopoeia (JP) reagents and test solutions - **newly added!**
- ✓ Indian Pharmacopoeia reagents and solutions - **newly added!**
- ✓ International Pharmacopoeia test and volumetric solutions - **newly added!**
- ✓ Conductivity CRMs
- ✓ pH-buffer CRMs
- ✓ Standards of Ethanol in Water
- ✓ Analytical Volumetric Solutions (Ready-to-use CRMs and Concentrates)
- ✓ Karl Fischer Water Standards - **newly added!**

All products are manufactured and tested in compliance with the respective Pharmacopoeia and all are supplied with a Certificate of Analysis.

We manufacture a number of custom-made products that are not included in this catalogue and we would be pleased to receive such enquiries. Please fill in the form on the last page and send it to us. You can rely on receiving a feedback within two working days.



LLOYD'S REGISTER QUALITY ASSURANCE · ISO9001

ACCLASS ACCREDITED TESTING

ACCLASS ACCREDITED REFERENCE MATERIAL PRODUCER

Management's statement on quality policy

The major priority of the management of ASPL at „CPA" Ltd is provision of good professional practice and assuring the quality at all stages of Reference Materials production (calibration solutions for ICP, AAS, Ionic chromatography, HPLC, GC as well as pH buffers, conductivity solutions and solutions intended for volumetric analysis), Reagents and Pharmacopoeia products, including:

- Quality of used raw material
- Preparation and control of RM, Reagents and Pharmacopoeia products
- Homogeneity and stability tests
- Calibration/measurement at stated metrological traceability
- Assignment of property values with stated metrological traceability and assigned uncertainty evaluated according to ISO Guide 98-3 and ISO Guide 35
- Handling, transportation and storage of RM, Reagents and Pharmacopoeia products
- Customers service.

The Management System developed at ASPL is aimed at increasing the level (quality) of the offered services as well as provision of qualitative and reliable results from calibration/characterization of RM.

In order to implement its policy and in accordance with the requirements of EN ISO/IEC 17025, ISO Guide 34, EN ISO 9001:2008, normative regulations and legislation of Republic of Bulgaria the Management has defined the following directions of development:

- Production of RM according to the requirements of ISO Guide 34 and the definitions given by the Guides of ISO REMCO and ISO Guide 99
- Manufacturing and control of reagents by strictly observing the requirements of the particular Pharmacopoeia
- Strict determination and observance of clients' requirements in order to increase the degree of client's satisfaction
- Control of all measurements and calibrations during the process of RM's production in accordance with validation methods, and if required, development of new methods
- Provision of good professional practice and quality during calibration/characterization of RM
- Certification of CRM according to the requirements of ISO Guide 35 and accompanied with certificates corresponding to the requirements of ISO Guide 31
- Motivation of the managing and operative company's personnel in order to ensure quality of every single aspect of the activities in relation to production and calibration/characterization of RM, Reagents and Pharmacopeia products as well as loyal attitude to company's clients
- Continuously improvement in the level of products and services offered as well as development of new ones considering the clients' requirements and market's demand

- Personnel's training according to the respective activities performed with regard to production of RM, Reagents and Pharmacopeia products and quality of calibration/ characterization
- Determination of particular, correct and clear interrelations, competences and responsibilities during work performed between the separate sections of ASPL
- Keeping the MS in accordance with the requirements of EN ISO/IEC 17025, ISO Guide 34 and EN ISO 9001:2008, as well as continuously improvement of its effectiveness through planning and adopting the changes

The Management of ASPL at the Company declares that neither it nor the ASPL's associates are subject to internal or external financial or other influence that may negatively affect the quality and work's results.

The personnel at ASPL conscientiously performs all activities, strictly observing the confidentiality, independence and application of good laboratory practice principles.

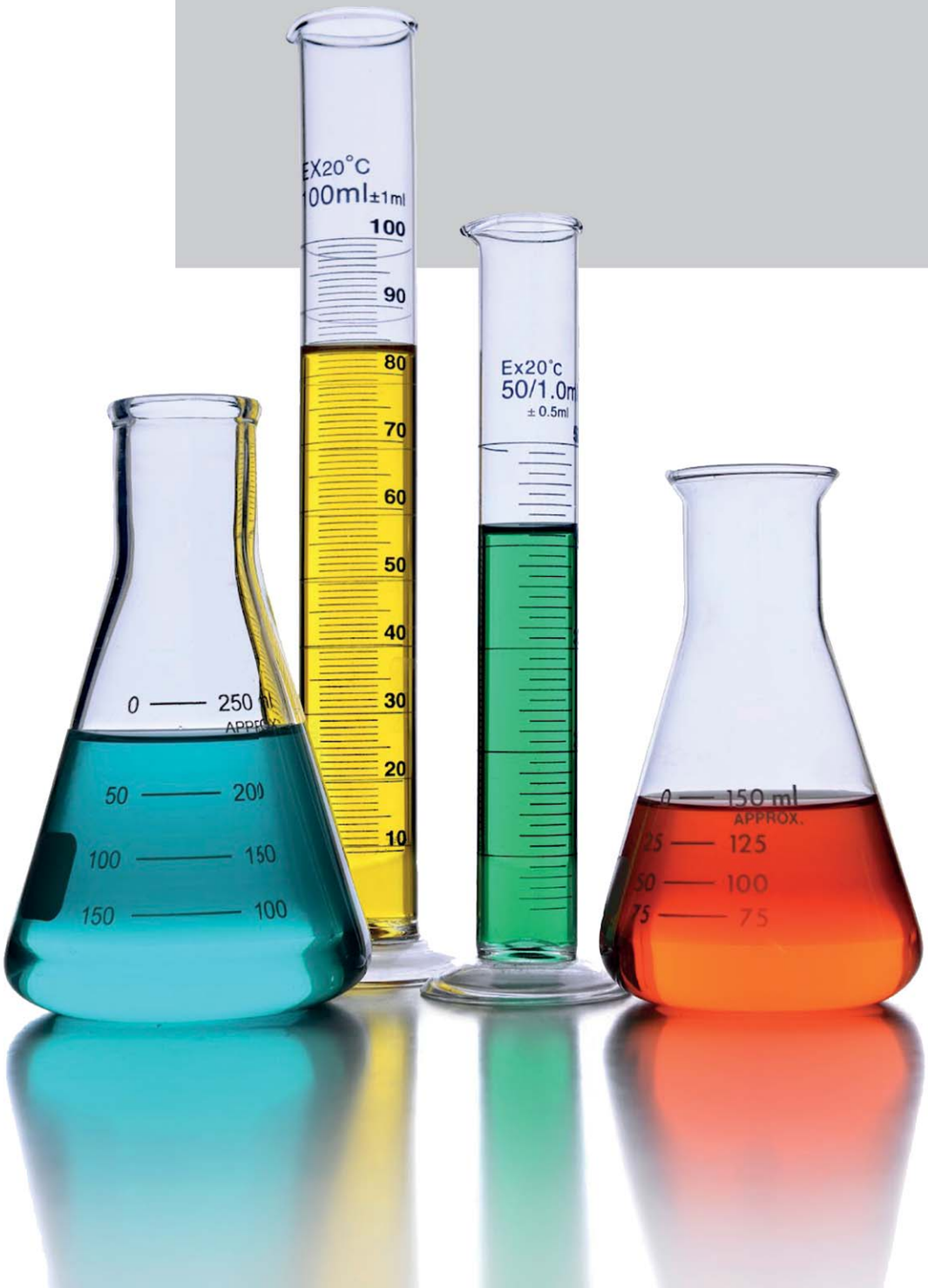
Every member of ASPL's personnel is obliged to be acquainted with the quality documents and to apply strictly the Policy and procedures during his/her work.

MANAGER OF „CPA" Ltd : Taralova

(Krassimira Taralova)

Contents

Analytical Reagents and Standards



Conductivity Standard Solutions

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

Traceability to SI of NIST (SRM)

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels".

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Conductivity water (nominal 0 - 2 µS/cm) traceable to NIST	6	CS0M0S	250	ml
Conductivity Standard 5 µS/cm at 25°C in 30% n-propanol	3	CS5M0S	500	ml
Conductivity Standard 10 µS/cm at 25°C in 30% n-propanol	3	CS10M0S	500	ml
Conductivity Standard 15 µS/cm at 25°C in 30% n-propanol	3	CS15M0S	500	ml
Conductivity Standard 20 µS/cm at 25°C in 30% n-propanol	3	CS20M0S	500	ml
Conductivity Standard 25 µS/cm at 25°C in 30% n-propanol	12	CS25M0S	500	ml
Conductivity Standard 50 µS/cm at 25°C	6	CS50M0S	500	ml
Conductivity Standard 84 µS/cm at 25°C	6	CS84M0S	500	ml
Conductivity Standard 100 µS/cm at 25°C	6	CS1P2S	500	ml
Conductivity Standard 111.3 µS/cm at 25°C	12	CS111M3MS	500	ml
Conductivity Standard 147 µS/cm at 25°C	6	CS147M0S	500	ml
Conductivity Standard 200 µS/cm at 25°C	6	CS2P2S	500	ml
Conductivity Standard 500 µS/cm at 25°C	12	CS5P2S	500	ml
Conductivity Standard 718 µS/cm at 25°C	12	CS718M0S	500	ml
Conductivity Standard 1000 µS/cm at 25°C	12	CS1P3S	500	ml
Conductivity Standard 1413 µS/cm at 25°C	12	CS1413M0S	500	ml
Conductivity Standard 1500 µS/cm at 25°C	12	CS15P2S	500	ml
Conductivity Standard 2000 µS/cm at 25°C	12	CS2P3S	500	ml
Conductivity Standard 3000 µS/cm at 25°C	12	CS3P3S	500	ml
Conductivity Standard 5000 µS/cm at 25°C	12	CS5P3S	500	ml
Conductivity Standard 10000 µS/cm at 25°C	12	CS1P4S	500	ml
Conductivity Standard 12880 µS/cm at 25°C	12	CS1288P1S	500	ml
Conductivity Standard 15000 µS/cm at 25°C	12	CS15P3S	500	ml
Conductivity Standard 20000 µS/cm at 25°C	12	CS2P4S	500	ml
Conductivity Standard 30000 µS/cm at 25°C	12	CS3P4S	500	ml
Conductivity Standard 50000 µS/cm at 25°C	12	CS5P5S	500	ml
Conductivity Standard 100000 µS/cm at 25°C	12	CS1P5S	500	ml
Conductivity Standard 150000 µS/cm at 25°C	12	CS15P5S	500	ml
Conductivity Standard 200000 µS/cm at 25°C	12	CS2P5S	500	ml
Conductivity Standard 300000 µS/cm at 25°C	12	CS3P5S	500	ml

pH-buffer Solutions

Primary pH-buffer Solutions

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

The metrological traceability is assured through calibration by primary method for pH measurement - Harned cell

Expanded Uncertainty – 0.003 ÷ 0.005

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels".

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
pH 1.679 at 25°C Potassium Tetraoxalate	12	PH214	500	ml
pH 3.557 at 25°C Potassium Hydrogen Tartrate	12	PH223	500	ml
pH 3.776 at 25°C Potassium Dihydrogen Citrate	12	PH215	500	ml
pH 4.008 at 25°C Potassium Hydrogen Phtalate	12	PH216	500	ml
pH 6.865 at 25°C Potassium Dihydrogen Phosphate/Hydrogen Phosphate	12	PH217	500	ml
pH 7.413 at 25°C Potassium Dihydrogen Phosphate/ di-Sodium Hydrogen Phosphate	12	PH218	500	ml
pH 9.180 at 25°C Sodium Tetraborate	12	PH219	500	ml
pH 10.01 at 25°C Sodium Carbonate/Sodium Hydrogen Carbonate	12	PH220	500	ml

Secondary pH-buffer Solutions

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

Traceability to SI of NIST (SRM) or of accredited according to ISO/ IEC 17025 and/ or ISO Guide 34 Laboratories/ Producers

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels".

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT	PRICE *EUR*	REF	VOLUME	UNIT
pH 1.679 at 25°C Potassium Tetraoxalate	12	PH014	500	ml	23	PH014a	1000	ml
pH 3.557 at 25°C Potassium Hydrogen Tartrate	12	PH021	500	ml	23	PH021a	1000	ml
pH 3.776 at 25°C Potassium Dihydrogen Citrate	12	PH015	500	ml	23	PH015a	1000	ml
pH 4.008 at 25°C Potassium Hydrogen Phtalate	12	PH016	500	ml	23	PH016a	1000	ml
pH 6.865 at 25°C Potassium Dihydrogen Phosphate/ Hydrogen Phosphate	12	PH017	500	ml	23	PH017a	1000	ml
pH 7.413 at 25°C Potassium Dihydrogen Phosphate/ di-Sodium Hydrogen Phosphate	12	PH018	500	ml	23	PH018a	1000	ml
pH 9.180 at 25°C Sodium Tetraborate	12	PH019	500	ml	23	PH019a	1000	ml
pH 10.01 at 25°C Sodium Carbonate/ Sodium Hydrogen Carbonate	12	PH020	500	ml	23	PH020a	1000	ml

Colour Coded pH-buffer Solutions

These pH-buffers are colour coded for simplicity.

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

Traceability to SI of NIST (SRM) or of accredited according to ISO/ IEC 17025 and/ or ISO Guide 34 Laboratories/ Producers

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels".

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT	PRICE *EUR*	REF	VOLUME	UNIT
pH 4.00 at 20°C coloured Citric acid/ Sodium Hydroxide/ Sodium Chloride	24	PH004	500	ml	20	PH004a	1000	ml
pH 7.00 at 20°C coloured Potassium Dihydrogen Phosphate/di- Sodium Hydrogen Phosphate	24	PH007	500	ml	20	PH007a	1000	ml
pH 10.00 at 20 C coloured Borax/Sodium Hydroxide	24	PH010	500	ml	20	PH010a	1000	ml

Reference pH-buffer Solutions

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

Traceability to SI of NIST (SRM) or of Laboratories/ Producers accredited according to ISO/ IEC 17025 and/ or ISO Guide 34

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels".

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT	PRICE *EUR*	REF	VOLUME	UNIT
pH 1.00 at 20°C Glycine/ Sodium Chloride/ Hydrochloric Acid	12	PH101	500	ml	25	PH101a	1000	ml
pH 2.00 at 20°C Citric Acid/ Sodium Chloride/ Hydrochloric Acid	12	PH102	500	ml	25	PH102a	1000	ml
pH 3.00 at 20°C Citric Acid/ Sodium Chloride/ Hydrochloric Acid	12	PH103	500	ml	25	PH103a	1000	ml
pH 4.00 at 20°C Citric Acid/ Sodium Chloride/ Sodium Hydroxide	12	PH104	500	ml	25	PH104a	1000	ml
pH 5.00 at 20°C Citric Acid/ Sodium Hydroxide	12	PH105	500	ml	25	PH105a	1000	ml
pH 6.00 at 20°C Citric Acid/ Sodium Hydroxide	12	PH106	500	ml	25	PH106a	1000	ml
pH 7.00 at 20 C di-Sodium Hydrogen Phosphate/ Potassium Dihydrogen Phosphate	12	PH107	500	ml	25	PH107a	1000	ml
pH 8.00 at 20°C Boric Acid/ Sodium Chloride/ Sodium Hydroxide	12	PH108	500	ml	25	PH108a	1000	ml
pH 9.00 at 20°C Boric Acid/ Potassium Chloride/ Sodium Hydroxide	12	PH109	500	ml	25	PH109a	1000	ml
pH 10.00 at 20°C Boric Acide/ Potassium Chloride/ Sodium Hydroxide	12	PH110	500	ml	25	PH110a	1000	ml
pH 11.00 at 20°C Boric Acide/ Potassium Chloride/ Sodium Hydroxide	12	PH111	500	ml	25	PH111a	1000	ml
pH 12.00 at 20°C di-Sodium Hydrogen Phosphate/ Sodium Hydroxide	12	PH112	500	ml	25	PH112a	1000	ml
pH 13.00 at 20°C Glycine/ Sodium Hydroxide/ Sodium Chloride	12	PH113	500	ml	25	PH113a	1000	ml

Standards of Ethanol in Water

These standards are intented for use as reference solutions for alcohol content measuring instruments.

They are prepared using organic-free water, and the certified concentrations are based on results obtained by density determination.

Accuracy is ±0.02%

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ethanol 20% (v/v)	12	Z03644114	100	ml
Ethanol 30% (v/v)	12	Z03644115	500	ml
Ethanol 60% (v/v)	12	Z03644116	1000	ml
Ethanol 70% (v/v)	12	Z03644117	1000	ml
Ethanol 80% (v/v)	12	Z03644118	500	ml
Ethanol 90% (v/v)	12	Z03644119	500	ml
Kit of ethanolic solutions 9%; 11.50%; 14%	12	KET1	3x100	ml
Kit of ethanolic solutions 5%, 9%; 11.50%; 14%	12	KET1a	4x100	ml
Kit of ethanolic solutions 35%, 40%; 45%; 50%	12	KET2	4x100	ml
Kit of ethanolic solutions 50%, 60%; 70%, 80%	12	KET3	4x100	ml
Standard Wine Material	12	KET7	250	ml

Analytical Volumetric Solutions

Titration is the oldest but still the most precise procedure in chemical analysis. However, such reliable analyses require accurately adjusted volumetric solutions.

Produced and calibrated acc. to the instructions given in ISO Guide 34 and ISO 17025

Traceability to SI of NIST (SRM) or of Laboratories/ Producers accredited according to ISO/ IEC 17025 and/ or ISO Guide 34

Certificate of analysis prepared acc. to ISO Guide 31:2000 „Reference materials - Contents of certificates and labels“.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid 0.1M (0.1N)	24	Z10141000	1000	ml
Acetic Acid 1M (1N)	12	Z10144028	1000	ml
Acetic Acid 2M (2N)	24	Z10141001	1000	ml
Ammonia (Ammonium Hydroxide) 0.1M (0.1N)	24	Z12271002	1000	ml
Ammonium iron(III) sulphate 0.1M	12	Z12181003	1000	ml
Ammonium Sulphate 0.5M (1N)	24	Z12341004	1000	ml
Ammonium Thiocyanate 0.1M (0.1N)	12	Z12351005	1000	ml
Ammonium Thiocyanate 1M (1N)	24	Z12351006	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Barium Chloride 0.05M (0.1N)	24	Z12461007	1000	ml
Benzethonium chloride 0.004M (0.004N)	24	Z12491009	1000	ml
Benzethonium chloride 0.04M (0.04N)	24	Z12491010	1000	ml
Bromine - Bromate/Bromide 0.05M (0.1N)	24	Z16001011	1000	ml
Calcium Chloride 0.005M (0.01N)	24	Z12721012	1000	ml
Calcium Chloride 0.01M (0.02N)	24	Z12721013	1000	ml
Calcium Chloride 0.02M (0.04N)	24	Z12721014	1000	ml
Calcium Chloride 0.1M (0.2N)	12	Z12724226	1000	ml
Calcium Chloride 0.5M (1N)	24	Z12721015	1000	ml
Cerium (IV) Sulphate 0.05M (0.05N)	24	Z12801016	1000	ml
Cerium (IV) Sulphate 0.1M (0.1N)	24	Z12801017	1000	ml
Copper (II) Sulphate 0.1M (0.1N)	24	Z13071018	1000	ml
EDTA (disodium salt) 0.005M (0.01N)	24	Z10311018	1000	ml
EDTA (disodium salt) 0.01M (0.02N)	24	Z10311019	1000	ml
EDTA (disodium salt) 0.1M (0.2N)	24	Z10311020	1000	ml
EDTA 0.050M (0.100N)	24	Z10311214	1000	ml
Hydrochloric Acid 10M (10N)	24	Z13411031	1000	ml
Hydrochloric Acid 2M (2N)	24	Z13411028	1000	ml
Hydrochloric Acid 5M (5N)	24	Z13411029	1000	ml
Hydrochloric Acid 6M (6N)	24	Z13411030	1000	ml
Hydrochloric Acid 0.01 M (0.01N)	12	Z13411228	1000	ml
Hydrochloric Acid 0.02M (0.02N)	12	Z13414031	1000	ml
Hydrochloric Acid 0.05M (0.05N)	24	Z13411022	1000	ml
Hydrochloric Acid 0.1M (0.1N)	24	Z13411023	1000	ml
Hydrochloric Acid 0.25M (0.25N)	24	Z13411024	1000	ml
Hydrochloric Acid 0.2M (0.2N)	24	Z13411025	1000	ml
Hydrochloric Acid 0.5M (0.5N)	24	Z13411026	1000	ml
Hydrochloric Acid 1M (1N)	24	Z13411027	1000	ml
Hydrofluoric acid 1N (1M)	12	Z13214185	1000	ml
Iodide-Iodate 0.00333M (0.02N)	12	Z16011031	1000	ml
Iodide-Iodate 0.05M (0.3N)	24	Z16011032	1000	ml
Iodine 0.01M (0.02N)	12	Z13504057	1000	ml
Iodine 0.005M (0.01N)	12	Z13504058	1000	ml
Iodine 0.05M (0.1N)	12	Z13501034	1000	ml
Iodine 0.1M (0.2 N)	12	Z13504166	1000	ml
Iodine 0.5M (1N)	12	Z13501035	1000	ml
Iron (II) Sulphate 0.1M	12	Z13591036	1000	ml
Lead (II) Nitrate 0.01M (0.02N)	24	Z13711037	1000	ml
Lead (II) Nitrate 0.5M (1N)	24	Z13711038	1000	ml
Magnesium Chloride 0.01M (0.02N)	24	Z13851039	1000	ml
Magnesium Chloride 1M (2N)	24	Z13854102	1000	ml
Magnesium Sulphate 0.1M (0.1N)	12	Z13871216	1000	ml
Magnesium Sulphate 1M (1N)	12	Z13874184	1000	ml
Mercury (I) (Mercurous) Nitrate 0.1M (0.1N)	12	Z14031040	1000	ml
Mercury (II) (Mercuric) Nitrate 0.01M (0.02N)	24	Z14041041	1000	ml
Mercury (II) (Mercuric) Nitrate 0.05M (0.1N)	24	Z14041042	1000	ml
Nickel (II) chloride 0.5M	12	Z14174160	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Nitric Acid 0.01M (0.01N)	24	Z14221043	1000	ml
Nitric Acid 0.1M (0.1N)	12	Z14224048	1000	ml
Nitric Acid 1M (1N)	24	Z14221044	1000	ml
Nitric Acid 2M (2N)	24	Z14221045	1000	ml
Nitric Acid 4M (4N)	24	Z14221046	1000	ml
Nitric Acid 5M (5N)	12	Z14224218	1000	ml
Nitric Acid 6M (6N)	12	Z14224167	1000	ml
Nitric Acid 8M (8N)	24	Z14221047	1000	ml
Oxalic Acid 0.025M (0.05N)	12	Z14291048	1000	ml
Oxalic Acid 0.05M (0.1N)	24	Z14291049	1000	ml
Oxalic Acid 0.5M (1N)	24	Z14291050	1000	ml
Oxalic Acid 0.5N (0.25M)	12	Z14294037	1000	ml
Perchloric Acid 0.1M (0.1N) in Water	24	Z14331051	1000	ml
Perchloric Acid 1M (1N) in Water	24	Z14331052	1000	ml
Potassium Bromate 1/60M (0.01667M) (0.1N)	24	Z14421053	1000	ml
Potassium Bromide 0.5M (0.5N)	24	Z14431054	1000	ml
Potassium Bromide 1M (1N)	24	Z14431055	1000	ml
Potassium Chloride 0.5M (0.5N)	24	Z14461056	1000	ml
Potassium Chloride 1M (1N)	24	Z14461057	1000	ml
Potassium Chloride KCl 0.001M	24	Z14464162	500	ml
Potassium Chloride KCl 0.01M	24	Z14464161	500	ml
Potassium Chloride KCl 3 mol/l	12	Z14464098	250	ml
Potassium Chromate 1/30M (0.0333M)	24	Z14471058	1000	ml
Potassium Dichromate 0.167M (1N)	24	Z14411061	1000	ml
Potassium Dichromate 1/24M (0.0417M) (0.25N)	24	Z14411060	1000	ml
Potassium Dichromate 1/60M (0.0167M) (0.1N)	24	Z14411059	1000	ml
Potassium hydrogen phthalate 0.1M (0.1N)	24	Z14651062	1000	ml
Potassium Hydroxide 0.05M (0.05N)	24	Z14571063	1000	ml
Potassium Hydroxide 0.1M (0.1N)	24	Z14571065	1000	ml
Potassium Hydroxide 0.1M (0.1N) in ethanol	12	Z14571064	1000	ml
Potassium Hydroxide 0.5M (0.5N)	24	Z14571066	1000	ml
Potassium Hydroxide 0.5M (0.5N) in ethanol	12	Z14571070	1000	ml
Potassium Hydroxide 1M (1N)	24	Z14571069	1000	ml
Potassium Hydroxide 1M (1N) in methanol	12	Z14571068	1000	ml
Potassium Iodate 0.0147M (0.08833N)	24	Z14581070	1000	ml
Potassium Iodate 0.01667M (0.1N)	24	Z14581071	1000	ml
Potassium Iodate 0.05M (0.3N)	24	Z14581072	1000	ml
Potassium Iodide 0.1M (0.1N)	24	Z14591073	1000	ml
Potassium Iodide 1M (1N)	24	Z14591074	1000	ml
Potassium Iodide 3M (3N)	24	Z14591075	1000	ml
Potassium nitrate 1M	12	Z14624145	1000	ml
Potassium Permanganate 0.01M (0.05N)	24	Z14641076	1000	ml
Potassium Permanganate 0.02M (0.1N)	24	Z14641077	1000	ml
Potassium Permanganate 0.05M (0.25N)	24	Z14641078	1000	ml
Potassium Permanganate 0.2M (1N)	24	Z14641079	1000	ml
Potassium Thiocyanate 0.1M (0.1N)	24	Z16031080	1000	ml
Silver Nitrate 0.01M (0.01N)	24	Z14941081	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Silver Nitrate 0.05M (0.05N)	24	Z14941082	1000	ml
Silver Nitrate 0.1M (0.1N)	24	Z14941083	1000	ml
Silver Nitrate 1M (1N)	24	Z14941085	1000	ml
Sodium Carbonate 0.05M (0.1N)	12	Z15031089	1000	ml
Sodium Carbonate 0.5M (1N)	12	Z15031090	1000	ml
Sodium Chloride 0.01M (0.01N)	12	Z15084083	1000	ml
Sodium Chloride 0.05M (0.05N)	24	Z15081091	1000	ml
Sodium Chloride 0.1M (0.1N)	24	Z15081092	1000	ml
Sodium Chloride 1M (1N)	24	Z15081093	1000	ml
Sodium Hydroxide 0.01M (0.01N)	12	Z15171207	1000	ml
Sodium Hydroxide 0.02M (0.02N)	24	Z15171094	1000	ml
Sodium Hydroxide 0.1M (0.1N)	24	Z15171095	1000	ml
Sodium Hydroxide 0.5M (0.5N)	24	Z15171098	1000	ml
Sodium Hydroxide 1M (1N)	24	Z15171099	1000	ml
Sodium Hydroxide 2M (2N)	24	Z15171100	1000	ml
Sodium Hydroxide 4M (4N)	24	Z15171101	1000	ml
Sodium Nitrite 0.1M (0.2N)	12	Z15231102	1000	ml
Sodium Nitrite 0.5M (1N)	12	Z15231104	1000	ml
Sodium Nitrite 1M (2N)	12	Z15231105	1000	ml
Sodium Oxalate 0.05M (0.1N)	24	Z15241107	1000	ml
Sodium Thiocyanate 0.1M (0.1N)	24	Z16041108	1000	ml
Sodium Thiosulphate 0.01M (0.01N)	24	Z15321109	1000	ml
Sodium Thiosulphate 0.05M (0.05N)	24	Z15321110	1000	ml
Sodium Thiosulphate 0.1M (0.1N)	24	Z15321111	1000	ml
Sodium Thiosulphate 0.5M (0.5N)	12	Z15324193	1000	ml
Sodium Thiosulphate 1M (1N)	24	Z15321112	1000	ml
Sulphuric Acid 0.05M (0.1N)	24	Z15451113	1000	ml
Sulphuric Acid 0.1M (0.2N)	24	Z15451114	1000	ml
Sulphuric Acid 0.5M (1N)	24	Z15451117	1000	ml
Sulphuric Acid 1M (2N)	24	Z15451116	1000	ml
Sulphuric Acid 2.5M (5N)	24	Z15451118	1000	ml
Sulphuric Acid 5M (10N)	24	Z15451119	1000	ml
Zinc Chloride 0.1M (0.1N)	24	Z15871120	1000	ml
Zinc Chloride 0.5M (0.5N)	24	Z15871121	1000	ml
Zinc Sulphate 0.01M (0.01N)	12	Z107304181	1000	ml
Zinc Sulphate 0.02 M (0.02 N)	12	Z16051124	1000	ml
Zinc Sulphate 0.05M (0.05N)	24	Z16051122	1000	ml
Zinc Sulphate 0.1M (0.1N)	24	Z16051123	1000	ml

Concentrated Volumetric Solutions

Volumetric concentrates offer the convenience of prepared volumetric solutions with the benefits of reduced shipping costs and storage space. Concentrated are designed to be quantitatively transferred and brought to volume.

Certificate of Analysis with actual contents, lot number, expiry date and traceability to SI of NIST (SRM) or of Laboratories/ Producers accredited according to ISO/ IEC 17025 and/ or ISO Guide 34 Concentrated volumetric solutions in sealed bottles. Easy to use. No ampoules to break. No need for pipetting. Empty the bottle in a volumetric flask, rinse and complete to volume.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
EDTA - concentrate to make 1L 0.1M solution	12	CC1031005	100	ml
EDTA - concentrate to make 1L 0.01 M solution	12	CC1031006	100	ml
EDTA - concentrate to make 1L 0.005 M solution	12	CC1031007	100	ml
EDTA - concentrate to make 1L 0.05M solution	12	CC1031008	100	ml
Ammonia - concentrate to make 1L 1M solution	12	CC1227002	100	ml
Hydrochloric Acid - concentrate to make 1L 1M solution	12	CC1341007	100	ml
Hydrochloric Acid - concentrate to make 1L 0.1M (0.1N) solution	12	CC1341010	100	ml
Iodine - concentrate to make 1L 0.05M (0.1N) solution	12	CC1350011	100	ml
Iodine - concentrate to make 1L 0.025M (0.05 N) solution	12	CC1350012	100	ml
Iodine - concentrate to make 1L 0.005M (0.01 N) solution	12	CC1350013	100	ml
Nitric Acid - concentrate to make 1L 1M (1N) solution	12	CC1422014	100	ml
Nitric Acid 0.1 M (0.1N) concentrated solution	12	CC1422015	100	ml
Potassium Dichromate - concentrate to make 1L 1/60M (0.1N) solution	12	CC1430011	100	ml
Potassium iodate - concentrate to make 1L 1/60M (0.1N) solution	12	CC14581071	100	ml
Potassium Permanganate concentrate to make 1L 1/50M (0.1N) KMnO4	12	CC1464016	100	ml
Silver nitrate - Concentrate to make 1L 0.1M (0.1N) solution	12	CC1494018	100	ml
Sodium Hydroxide - concentrate to make 1L 1M (1N) solution	12	CC1517019	100	ml
Sodium Hydroxide -concentrate to make 1L 0.1M (0.1N) solution	12	CC1517021	100	ml
Sodium Hydroxide - concentrate to make 1L 0.01M (0.01N) solution	12	CC1517022	100	ml
Sodium Thiosulphate - concentrate to make 1L 0.1M (0.1N) solution	12	CC1532023	100	ml
Sodium Thiosulphate - concentrate to make 1L 0.01M (0.01N) solution	12	CC1532024	100	ml
Sulphuric Acide - concentrate to make 1L 0.5M (1N) solution	12	CC1545025	100	ml
Sulphuric Acid - concentrate to make 1L 0.1N solution	12	CC1545026	100	ml

Karl Fischer Standards

The Water Determination Test (Karl Fischer Method) is designed to determine water content in substances by volumetric or coulometric determinations. The standards are intended to standardize and control reagents, check the reliability of titrations and test instruments according to the requirements of ISO 9000, GMP, GLP and FDA guidelines.

Certificate of Analysis giving the actual water content.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Karl Fischer coulometricWater Standard 0.01% - 10 ampoules x 4g (1 g contains 0.10 mg H2O)	36	KF001PGME	4x10	g
Karl Fischer coulometric Water Standard 0.1% - 10 ampoules x 4g (1 g contains 1.0 mg H2O)	36	KF01PGME	4x10	g
Karl Fischer coulometric Water Standard 1% - 10 ampoules x 4g (1 g contains 10 mg H2O)	36	KF1PGME	4x10	ml
Karl Fischer volumetric Fixed Water Standard - Sodium Tartrate Dihydrate(contains 15.66 +/- 0.05% H2O)	36	KFFSTD	100	g
Karl Fischer ovens Fixed Water Standard - Tripotassium Citrate Monohydrate(contains 5.55 +/- 0.05% H2O)	12	KFOPC	10	g
Karl Fischer volumetric Water Standard - 0.5% (1 ml methanol contains 5 mg H2O)	12	KFV05STD	250	ml
Karl Fischer volumetric Water Standard - 1% (1 ml methanol contains 10 mg H2O)	36	KFV1STD	500	ml

Reagents

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Biuret Reagent	12	Z30044227	100	ml
Coomassie Staining Solution	12	Z00454232	100	ml
Denigus' Reagent	18	Z00454235	100	ml
Digoxin Reagent	12	Z00454237	100	ml
Dragendorff's reagent (A+B)	6	Z00454233	100+100	ml
Fehling's Solution (A+B)	24	Z16061128	500+500	ml
Folin and Ciocalteu's phenol reagent	12	Z13794170	100	ml
Griess - Illosvay's Reagent	6	Z16071130	100	ml
Griess-Romijin's nitric acid reagent	12	Z00454238	30	ml
Griess-Romijin's nitrous acid reagent	12	Z00454239	100	ml
Mayer's Reagent	12	Z30044230	100	ml
Molybdovanadic reagent	12	Z30044231	100	ml
Nessler's Reagent A	12	Z16081131	500	ml
Nessler's Reagent B	12	Z16081131	500	ml
Schiff's fuchsin-sulfite reagent	12	Z30044229	100	ml
Schiff's reagent	12	Z30044228	100	ml
Schweitzer's Reagent	12	Z00454236	100	ml
Valser's Reagent	6	Z00454234	100	ml

European Pharmacopoeia Products

Opalescence and Coloration Solutions

These solutions are specially intended for use in testing Ph Eur and monographs.These solutions are produces according to 2.02.01 - Clarity and degree of opalescence of liquids and 2.02.02 - Degree of coloration of liquids of Ph Eur requirements using Ph Eur reagent quality components and water meeting the Ph Eur monograph requirements for Purified water.

Each bottle is accompanied by a Cerificate of Analysis.

Clarity and degree of opalescence of liquids

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Primary opalescent suspension	6	OP001	100	ml
Hydrazine sulfate solution	6	OP002	100	ml
Hexamethylenetetramine solution	6	OP003	100	ml

Degree of coloration of liquids

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Primary blue solution	24	CB004	100	ml
Primary red solution	24	CR003	100	ml
Primary Yellow solution	24	CY002	100	ml
Standard solution B (brown)	6	B005	125	ml
Standard solution BY (brownish yellow)	6	BY006	125	ml
Standard solution GY (greenish yellow)	12	GY008	125	ml
Standard solution R (red)	6	R009	125	ml
Standard solution Y (yellow)	6	Y007	125	ml
Colour Reference Solutions B: B1-B9	12	B105	9x100	ml
Colour Reference Solutions BY: BY1-BY7	12	BY106	7x100	ml
Colour Reference Solutions GY: GY1-GY7	6	GY108	7x100	ml
Colour Reference Solutions R: R1-R7	12	R109	7x100	ml
Colour Reference Solutions Y: Y1-Y7	12	Y107	7x100	ml
Hydrochloric Acid (Dilution Matrix)	24	DM015	1000	ml

Solutions for Absorbtion Spectrophotometry, Ultraviolet and Visible

DESCRIPTION	VALIDITY *months*	REF
Refractive Index Standard Kit : 5x8 ml Isooctane and 5x8 ml Water	24	RIIOW
Refractive Index Standard Kit : 5x8 ml Toluene and 5x8 ml Water	24	RITW
Potassium Chloride Solution for Stray Light Limit: 3x10 ml	36	UV2225KCl
Sodium Iodide Solution for Stray Light Testing: 3 x 10 ml	12	UV2225KNaI
Sodium Nitrite Solution for Stray Light Testing: 3 x 10 ml	12	UV2225KNaNi
Set of 2x10 ml Potassium Dichromate Solution for Absorbance Control 235 - 350 nm and 6x10 ml blank	36	UV2225PDA
Set of 2x10 ml Potassium Dichromate Solution for Absorbance Control at 430 nm and 6x10 ml blank	36	UV2225PDB
Set of 2x10 ml Toluene/ Hexane Solution for Resolution (for qualitative analysis) and 6x10 ml Blank	36	UV2225R
Holmium Oxide Solution for Wavelenghts Control	36	UV2225WL

European Pharmacopoeia:

- *Reagents*
- *Standard Solutions*
- *Buffer Solutions*

These solutions are produced according to the specifications given in chapter 4.1 using Ph Eur reagent quality components and water R meeting the Ph Eur monograph requirements for Purified water. Reagent solutions used in the limit tests for barium, calcium and sulfates are prepared using distilled water R.

Some of the reagents included in the list are toxic and should be handled in conformity with good quality control laboratory practice.

Each bottle is accompanied by a Cerificate of Analysis.

The identity of C.P.A. Products Codes with Ph Eur Codes (seven-figure reference code which will remain unchanged for a given reagent during subsequent revisions) makes the desired product easy to find.

Reagents

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic acid	24	1000401	1000	ml
Acetic acid	24	1000401a	100	ml
Acetic acid, dilute	24	1000402	1000	ml
Acetic acid, dilute	24	1000501a	100	ml
Acetic anhydride solution R1	12	1000501	1000	ml
Acetylacetone reagent R1	12	1000901	100	ml
Alcohol, aldehyde - free	12	1002501	1000	ml
Alizarin S solution	12	1002601	100	ml
Aluminium chloride reagent	12	1002702	1000	ml
Aluminium chloride reagent	12	1002702a	100	ml
Aluminium chloride solution	12	1002701	100	ml
Amido black 10B solution	12	1003101	100	ml
4-Aminobenzoic Acid Solution - Solution A	12	1003301	100	ml
Aminohippuric acid reagent	12	1003701	100	ml
Aminomethylalizarindiacetic Acid Reagent (Sol A+B+C)	3	1003901	50+50+100	ml
Aminomethylalizarindiacetic Acid Solution	3	1003902	1000	ml
Aminopyrazolone solution	12	1004601	100	ml
Ammonia	12	1004701	1000	ml
Ammonia, dilute R1	12	1004702	1000	ml
Ammonia, dilute R2	12	1004703	1000	ml
Ammonia, dilute R3	12	1004704	1000	ml
Ammonia, dilute R4	12	1004706	1000	ml
Ammonium carbonate solution	24	1005201	1000	ml
Ammonium carbonate solution R1	12	1005202	100	ml
Ammonium chloride solution	24	1005301	1000	ml
Ammonium molybdate solution	12	1005702	1000	ml
Ammonium molybdate solution R2	12	1005703	1000	ml
Ammonium molybdate solution R2	12	1005703a	50	ml
Ammonium molybdate solution R3 (I+II)	12	1005704	200+800	ml
Ammonium Molybdate Solution R6	12	1005709	100	ml
Ammonium oxalate solution	24	1005901	1000	ml
Ammonium Thiocyanate	24	1006701	1000	ml
Ammonium vanadate solution	12	1006801	100	ml
Anisaldehyde solution	12	1007301	100	ml
Anisaldehyde solution R1	12	1007302	100	ml
Antimony trichloride solution	12	1007701	100	ml
Antimony Trichloride Solution R1 (Solution A)	6	1007702	100	ml
Arsenite solution	12	1008301	100	ml
Ascorbic acid solution	12	1008401	100	ml
Azomethine H solution	12	1008701	100	ml
Barium chloride solution R1	24	1009301	1000	ml
Barium chloride solution R2	24	1009302	1000	ml
Barium hydroxide solution	24	1009401	1000	ml
Bismuth subnitrate solution	24	1011502	500	ml
Biuret reagent	12	1011601	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Blocking Solution	24	1122400	1000	ml
Borate solution	24	1033601	1000	ml
Boric acid solution, saturated, cold	12	1011801	100	ml
Bromine solution	12	1012401	100	ml
Bromine water	3	1012402	100	ml
Bromocresol green- methyl red solution	12	1012602	100	ml
Bromocresol green solution	24	1012601	100	ml
Bromocresol purple solution	24	1012701	100	ml
Bromophenol blue solution	24	1012801	100	ml
Bromophenol blue solution R1	24	1012802	100	ml
Bromophenol blue solution R2	24	1012803	100	ml
Bromothymol blue solution R1	24	1012901	100	ml
Bromothymol blue solution R2	24	1012902	100	ml
Bromothymol blue solution R3	24	1012903	100	ml
Bromothymol blue solution R4	24	1012904	100	ml
BRP indicator solution	12	1013000	100	ml
Calcium chloride solution	24	1014601	1000	ml
Calcium chloride solution 0.01M	24	1014602	1000	ml
Calcium chloride solution 0.01M	24	1014602a	100	ml
Calcium chloride solution 0.025M	24	1014604	1000	ml
Calcium Sulfate solution	12	1015201	100	ml
Calconecarboxylic acid triturate	12	1015301	50	g
Chloral hydrate solution	12	1017901	100	ml
2-Chloroethanol solution	12	1097501	50	ml
2-Chloroethanol solution	12	1097501a	10	ml
Chloroform, acidified	12	1018601	100	ml
Chromotrope IIB Solution	12	1020201	100	ml
Chromotropic Acid-Sulphuric Acid Solution	6	1020302	100	ml
Congo red paper	12	1022002	pack of 50	
Congo red solution	24	1022001	100	ml
Coomassie Staining Solution	12	1012201	100	ml
Coomassie Staining Solution R1	12	1173000	100	ml
Coomassie Staining Solution R1	12	1173000a	200	ml
Copper edetate solution	12	1022300	1000	ml
Copper edetate solution	12	1022300a	100	ml
Copper sulfate solution	24	1022501	1000	ml
Copper tetrammine, ammoniacal solution of	12	1022600	100	ml
Cresol red solution	24	1022801	100	ml
Crystal violet solution	12	1022901	100	ml
Cupri-citric solution	12	1023100	1000	ml
Cupri-citric solution R1	12	1023200	1000	ml
Cupri-tartaric solution (I+II)	12	1023300	500+500	ml
Cupri-tartaric solution R4 (I+II)	12	1023304	500+500	ml
Decolorised pararosaniline solution	6	1062201	100	ml
Destaining solution	24	1012202	1000	ml
Developer solution	12	1122500	500	ml
Dichloroacetic acid solution	12	1027001	500	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Dimethylaminobenzaldehyde solution R6	3	1029803	100	ml
Dimidium bromide-sulphan blue mixed solution	12	1031101	500	ml
Dinitrobenzene solution	12	1031201	1000	ml
Dinitrobenzoic acid solution	12	1031301	1000	ml
Dioxan solution	12	1032002	100	ml
Dioxan solution R1	12	1032003	50	ml
Dioxan stock solution	12	1032001	100	ml
Diphenylamine solution	12	1032101	1000	ml
Diphenylamine solution R1	12	1032102	1000	ml
Diphenylcarbazone mercuric reagent (I+II)	12	1032601	100+100	ml
Disodium hydrogen phosphate solution	24	1033301	1000	ml
Dithizone solution R2	12	1033903	100	ml
Divanadium pentoxide solution in sulphuric acid	24	1034001	100	ml
Ethyl acetate, treated	3	1035301	1000	ml
Ethylene oxide solution R5	12	1036408	10	ml
Ethylene oxide stock solution	12	1036401	10	ml
Ethylene oxide stock solution R1	12	1036406	10	ml
Ferric ammonium sulphate R2	12	1037702	1000	ml
Ferric ammonium sulphate R5	12	1037704	100	ml
Ferric ammonium sulphate R6	12	1037705	100	ml
Ferric chloride solution R1	12	1037801	1000	ml
Ferric chloride solution R2	12	1037802	1000	ml
Ferric chloride solution R3	12	1037803	100	ml
Ferric chloride-sulphamic acid reagent	12	1037804	1000	ml
Ferroin	24	1038100	100	ml
Fixing solution	6	1122600	500	ml
Fixing solution for isoelectric focusing in polyacrylamide gel	6	1138700	500	ml
Formaldehyde solution	12	1039101	100	ml
Formamide, treated	6	1039201	100	ml
Fuchsin solution, decolorised	12	1039401	100	ml
Fuchsin solution, decolorised R1	12	1039402	100	ml
Holmium perchlorate solution	12	1043101	3 x10	ml
Hydrochloric acid, brominated	12	1043507	100	ml
Hydrochloric acid, dilute	24	1043503	1000	ml
Hydrochloric acid, dilute R1	24	1043504	1000	ml
Hydrochloric acid, dilute R2	24	1043505	1000	ml
Hydrochloric acid, ethanolic	24	1043506	1000	ml
Hydrochloric Acid, Methanolic	24	1043511	1000	ml
Hydrochloric acid, R1	24	1043501	1000	ml
Hydroquinone solution	6	1044101	100	ml
Hydroxylamine hydrochloride solution R2	12	1044304	100	ml
Hydroxylamine solution, alcoholic	12	1044301	100	ml
Hydroxylamine solution, alkaline (I+II)	6	1044302	500+500	ml
Hydroxylamine solution, alkaline R1 (I+II)	12	1044303	100+100	ml
Hypophosphorous reagent	6	1045200	100	ml
Indigo carmine solution	12	1045601	100	ml
Indigo carmine solution R1	12	1045602	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Iodine bromide solution	12	1045901	1000	ml
Iodine Chloride Solution	12	1143001	100	ml
Iodine solution R4	12	1045806	1000	ml
Iodine solution, alcoholic	12	1045804	1000	ml
Iodine solution, chloroformic	12	1045805	1000	ml
Iodoplatinate reagent	12	1046300	200	ml
Iron salicylate solution	6	1046700	500	ml
Isatin Reagent	6	1046801	100	ml
Lanthanum chloride solution	24	1114001	1000	ml
Lanthanum nitrate solution	24	1048001	1000	ml
Lead acetate cotton	12	1048101	10	g
Lead acetate paper	12	1048102	pack of 50	
Lead acetate solution	6	1048103	1000	ml
Lead nitrate solution	12	1048301	1000	ml
Lead subacetate solution	12	1048400	100	ml
Litmus paper, blue	12	1049301	pack of 50	
Litmus paper, red	12	1049302	pack of 50	
Magnesium nitrate solution	12	1049801	100	ml
Magnesium nitrate solution R1 (10 times concentrated)	12	1049802	100	ml
Malachite green solution	6	1050501	100	ml
m-Cresol purple solution	12	1121701	100	ml
Mercuric acetate solution	6	1052001	100	ml
Mercuric bromide paper	12	1052101	pack of 50	
Mercuric chloride solution	12	1052201	100	ml
Mercuric sulphate solution	12	1052600	100	ml
Mercury, nitric acid solution of	6	1052801	100	ml
Metanil Yellow Solution	12	1052901	100	ml
Methanol, Aldehyde-free	24	1053300	1000	ml
Methanol, Anhydrous	24	1053400	1000	ml
Methanol, hydrochloric	24	1053203	100	ml
Methoxyphenylacetic Acid Reagent	12	1053601	30	ml
Methyl 4-acetylbenzoate reagent	6	1154100	100	ml
Methyl orange mixed solution	12	1054801	100	ml
Methyl orange solution	24	1054802	100	ml
Methyl red mixed solution	12	1055101	100	ml
Methyl red solution	24	1055102	100	ml
Methylene chloride, acidified	12	1055901	100	ml
Methylthymol blue mixture	24	1158501	50	g
Molybdovanadic reagent	12	1056700	100	ml
Mordant black 11 triturate	24	1056801	100	g
Mordant black 11 triturate R1	24	1056802	100	g
Naphtholbenzein solution	24	1057601	100	ml
Nile blue A solution	12	1058201	100	ml
Ninhydrin and stannous chloride reagent R1 (A +B)	3	1058302	100+100	ml
Ninhydrin solution	12	1058303	100	ml
Ninhydrin solution R1	12	1058304	100	ml
Ninhydrin solution R2	12	1058305	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ninhydrin solution R3	12	1058306	100	ml
Ninhydrin solution R3	12	1058306	100	ml
Nitric acid, dilute	24	1058402	100	ml
Nitric acid, dilute R1	24	1058407	100	ml
Nitric acid, dilute R2	24	1058409	100	ml
Nitrochromic reagent	24	1059100	100	ml
Nitro-molybdovanadic reagent	12	1060100	500	ml
Oxalic acid and sulphuric acid solution	12	1061401	1000	ml
Palladium chloride solution (to be diluted)	24	1061501	100	ml
Perchloric acid solution	24	1062901	100	ml
Periodic acetic acid solution	12	1063000	100	ml
Phenol red solution	24	1063601	100	ml
Phenol red solution R2	24	1063603	500	ml
Phenol red solution R3	24	1063604	500	ml
Phenol red solution R3	24	1063604a	100	ml
Phenolphtalein paper	24	1063704	pack of 50	
Phenolphtalein solution	24	1063702	100	ml
Phenolphtalein solution R1	24	1063703	100	ml
Phenylhydrazine hydrochloride solution	6	1064501	100	ml
Phosphomolybdotungstic reagent	12	1065000	100	ml
Phosphomolybdotungstic reagent, dilute	12	1065001	100	ml
Phosphoric acid, dilute	12	1065101	1000	ml
Phosphoric acid, dilute R1	12	1065102	1000	ml
Phosphotungstic acid solution	12	1065200	100	ml
Picric acid solution	6	1065801	100	ml
Picric acid solution R1	6	1065802	100	ml
Potassium chloride 0.1M	24	1069101	1000	ml
Potassium chromate solution	24	1069201	1000	ml
Potassium dichromate solution	12	1069501	1000	ml
Potassium dichromate solution R1	12	1069502	1000	ml
Potassium dihydrogen phosphate, 0.2 M	12	1069601	1000	ml
Potassium ferriperiodate solution	6	1070801	100	ml
Potassium ferrocyanide solution	12	1069801	100	ml
Potassium hydrogen phtalate, 0.2M	6	1070001	1000	ml
Potassium hydroxide in alcohol (10% V/V), 0.5M	12	1070302	1000	ml
Potassium hydroxide solution, alcoholic	12	1070303	100	ml
Potassium hydroxide solution, alcoholic R1	12	1070304	1000	ml
Potassium hydroxide, alcoholic 2M	12	1070301	100	ml
Potassium iodide and starch solution	12	1070501	100	ml
Potassium iodide solution	24	1070502	1000	ml
Potassium iodide solution, iodinated	12	1070503	100	ml
Potassium iodide solution, iodinated R1	12	1070505	100	ml
Potassium iodide solution, saturated	12	1070504	100	ml
Potassium iodobismuthate solution	6	1070600	100	ml
Potassium iodobismuthate solution R1	6	1070601	500	ml
Potassium iodobismuthate solution R2 (Stock solution)	6	1070602	100	ml
Potassium iodobismuthate solution R3	6	1070604	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium iodobismuthate solution R4	6	1070605	100	ml
Potassium iodobismuthate solution R5	6	1070606	100	ml
Potassium iodobismuthate solution, dilute	6	1070603	500	ml
Potassium permanganate and phosphoric acid solution	12	1070901	100	ml
Potassium permanganate solution	24	1070902	1000	ml
Potassium plumbite solution	6	1071200	100	ml
Potassium pyroantimonate solution	12	1071301	100	ml
Potassium tetraiodomercurate solution	12	1071500	100	ml
Potassium tetraiodomercurate solution, alkaline (I+II)	24	1071600	100+100	ml
Potassium thiocyanate solution	24	1071801	1000	ml
Pyridylazonaphthol Solution	12	1073501	100	ml
Quinaldine red solution	24	1073801	100	ml
Ruthenium red solution	12	1075201	100	ml
Salicylaldehyde azine. C14H12N2O2. (Mr 240.3)	12	1075500	100	g
SDS-PAGE Running Buffer (10 times concentrated)	12	1114900	1000	ml
SDS-PAGE Sample Buffer (Concentrated)	12	1115000	125	ml
SDS-PAGE Sample Buffer Solution for Reducing Conditions (Concentrated)	12	1122100	500	ml
Silver manganese paper	12	1078200	pack of 50	
Silver nitrate reagent	24	1078305	100	ml
Silver nitrate solution in pyridine	12	1078304	100	ml
Silver nitrate solution R1	24	1078301	1000	ml
Silver nitrate solution R2	24	1078302	1000	ml
Sodium carbonate solution	24	1079301	1000	ml
Sodium carbonate solution R1	24	1079302	1000	ml
Sodium carbonate solution R2	24	1079303	1000	ml
Sodium chloride solution	24	1079502	1000	ml
Sodium chloride solution, saturated	12	1079503	1000	ml
Sodium hydrogen carbonate solution	24	1081301	1000	ml
Sodium hydroxide solution	24	1081401	1000	ml
Sodium hydroxide solution, carbonate - free	24	1081406	1000	ml
Sodium hydroxide solution, dilute	24	1081402	1000	ml
Sodium hydroxide solution, methanolic	24	1081403	100	ml
Sodium hydroxide solution, methanolic R1	24	1081405	100	ml
Sodium hydroxide solution, strong	24	1081404	1000	ml
Sodium hypochlorite solution, strong	12	1081600	1000	ml
Sodium metabisulphite 45.5 g/l solution	12	1058305-2	100	ml
Sodium sulphide solution	6	1083901	100	ml
Sodium sulphide solution R1	6	1083902	100	ml
Stannous chloride solution	12	1085001	100	ml
Starch iodate paper	12	1085101	pack of 50	
Starch iodide paper	24	1085106	pack of 50	
Starch solution	12	1085103	100	ml
Sulphanilic acid solution	3	1086203	100	ml
Sulphanilic acid solution R1	3	1086201	100	ml
Sulphomolybdic reagent R2	12	1086400	100	ml
Sulphomolybdic reagent R3	12	1086500	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sulphuric acid, dilute	24	1086804	1000	ml
Sulphuric acid, dilute	24	1086804	100	ml
Sulphuric acid-formaldehyde reagent	6	1086805	100	ml
Tetramethyldiaminodiphenylmethane reagent	6	1088701	100	ml
Thioacetamide solution	12	1089602	1000	ml
Thioacetamide solution	12	1089602a	100	ml
Thymol blue solution	24	1090601	100	ml
Thymolphtalein solution	12	1090701	100	ml
Titan yellow paper	12	1090901	pack of 50	
Titan yellow solution	12	1090902	100	ml
Titanium trichloride - sulphuric acid reagent	6	1091202	100	ml
Titanium trichloride solution	12	1091201	100	ml
TLC performance test solution	6	1116600	10	ml
o-Tolidine solution	6	1123001	500	ml
Trichloroacetic acid solution	12	1092501	1000	ml
Triphenyltetrazolium Chloride Solution	12	1093801	100	ml
Tris (hydroxymethyl) aminomethane solution	4	1094201	100	ml
Vanillin solution, phosphoric	12	1095302	100	ml
Water	12	1095500	5000	ml
Water for chromatography	12	1095503	1000	ml
Water, ammonium-free	12	1095501	1000	ml
Water, carbon dioxide - free	12	1095502	1000	ml
Water, nitrate-free	12	1095506	1000	ml
Water, particle-free	12	1095507	1000	ml
Xylenol Orange Triturate	12	1096301	50	g
Zinc Acetate Solution	12	1102301	1000	ml
Zinc chloride solution, iodinated	12	1096602	1000	ml
Zinc chloride-formic acid solution	24	1096601	1000	ml
Zinc iodide and starch solution	12	1096502	100	ml
Zinc, activated	12	1096501	10	g
Zirconyl nitrate solution	24	1097201	100	ml

Standard Solutions

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetaldehyde standard solution 100 times concentrated (10000 ppm C2H4O)	6	5000100C	100	ml
Acetaldehyde standard solution 100 times concentrated R1 (10000 ppm C2H4O)	6	5000101C	100	ml
Aluminium standard solution (200 ppm Al)	4	5000200	100	ml
Aluminium standard solution 10 times concentrated (1000 ppm Al)	12	5000203C	100	ml
Aluminium standard solution 100 times concentrated (1000 ppm Al)	12	5000201C	100	ml
Aluminium standard solution 100 times concentrated (200 ppm Al)	12	5000202C	100	ml
Ammonium standard solution 2.5 times concentrated (250 ppm NH4)	12	5000300C	100	ml
Ammonium standard solution 250 times concentrated (250 ppm NH4)	12	5000302C	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium standard solution 100 times concentrated (250 ppm NH4)	12	5000301C	100	ml
Ammonium standard solution 100 times concentrated (300 ppm NH4)	12	5006100C	100	ml
Antimony standard solution 10 times concentrate (10 ppm Sb)	12	5000400C	100	ml
Antimony standard solution (100 ppm Sb)	12	5000401	100	ml
Arsenic standard solution 100 times concentrated (1000 ppm As)	12	5000500C	100	ml
Barium standard solution 20 times concentrated (1000 ppm Ba)	12	5000600C	100	ml
Barium standard solution (0.1 per cent Ba)	12	5000601	100	ml
Bismuth standard solution 10 times concentrated (1000 ppm)	12	5005300C	100	ml
Cadmium standard solution (0.1 per cent Cd)	12	5000700	100	ml
Calcium standard solution 100 times concentrated (1000 ppm Ca)	12	5000803C	100	ml
Calcium standard solution 10 times concentrared (1000 ppm Ca)	12	5000801C	100	ml
Calcium standard solution 10 times concentrared R1(1000 ppm Ca)	12	5000804C	100	ml
Calcium standard solution 10 times concentrared (4000 ppm Ca)	12	5000800C	100	ml
Calcium standard solution alcoholic 10 times concentrared (1000 ppm Ca)	12	5000802C	100	ml
Chloride standard solution 10 times concentrated (500 ppm Cl)	12	5004100C	100	ml
Chloride standard solution 100 times concentrated (500 ppm)	12	5000901C	100	ml
Chloride standard solution 100 times concentrated (800 ppm Cl)	12	5000900C	100	ml
Chromium standard solution (0.1 per cent Cr)	12	5001002	100	ml
Chromium standard solution (100 ppm Cr)	12	5001000	100	ml
Cobalt standard solution (100 ppm Co)	12	5004300	100	ml
Copper standard solution (0.1 per cent Cu)	12	5001100	100	ml
Ferrocyanide standard solution 10 times concentrated (1000 ppm Fe(CN)6)	12	5001200C	100	ml
Ferrocyanide standard solution 100 times concentrated (5000 ppm Fe(CN)6)	12	5001300C	100	ml
Fluoride standard solution 20 times concentrated (200 ppm F)	12	5001400C	100	ml
Formaldehyde standard solution 200 times concentrated (1000 ppm CH2O)	12	5001500C	100	ml
Germanium standard solution (100 ppm Ge)	12	5004400	100	ml
Glyoxal standard solution 100 times concentrated (2000 ppm C2H2O2)	12	5003700C	100	ml
Iodide standard solution 100 times concentrated (1000 ppm I)	12	5003800C	100	ml
Iron standard solution (0.1 per cent Fe)	12	5001605	100	ml
Iron standard solution 10 times concentrated (200 ppm Fe)	12	5001600C	100	ml
Iron standard solution 10 times concentrated (80 ppm Fe)	12	5001602C	100	ml
Iron standard solution 40 times concentrated (10 000 ppm Fe)	12	5001606C	100	ml
Iron Standard Solutuion 100 times concentrated (1000 ppm Fe)	12	5001601C	100	ml
Lead standard solution 500 times concentrated (1000 ppm Pb)	12	5001703C	100	ml
Lead standard solution R1 10 times concentrated (100 ppm Pb)	12	5001706C	100	ml
Lead standard solution (0.1 per cent Pb)	12	5001700	100	ml
Lead standard solution R1(0.1 per cent Pb)	12	5005400	100	ml
Magnesium standard solution (0.1 per cent Mg)	12	5001803	100	ml
Magnesium standard solution 10 times concentrated (1000 ppm Mg)	12	5001800C	100	ml
Magnesium standard solution R1 100 times concentrated (1000 ppm)	12	5001802C	100	ml
Magnesium standard solution (1000 ppm Mg)	12	5006200	100	ml
Manganese standard solution (1000 ppm Mn)	12	5005800	100	ml
Manganese standard solution (100 ppm Mn)	12	5004500	100	ml
Mercury standard solution (1000 ppm Hg)	12	5001900	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Mercury standard solution 100 times concentrated (1000 ppm Hg)	12	5001901C	100	ml
Nickel standard solution 100 times concentrated (1000 ppm Ni)	12	5002000C	100	ml
Nitrate standard solution 10 times concentrated (1000 ppm NO3)	12	5002100C	100	ml
Palladium standard solution (500 ppm Pd)	12	5003600	100	ml
Palladium standard solution 10 times concentrated (200 ppm Pd)	12	5003602C	100	ml
Phosphate standard solution 100 times concentrated (500 ppm PO4)	12	5002200C	100	ml
Phosphate standard solution (200 ppm PO4)	12	5004200	100	ml
Platinum standard solution 10 times concentrated(300 ppm Pt).	12	5002300C	100	ml
Potassium standard solution (0.2 per cent K)	12	5002402	100	ml
Potassium standard solution 20 times concentrated (12000 ppm K)	12	5005100C	100	ml
Potassium standard solution 20 times concentrated (2000 ppm K)	12	5002400C	100	ml
Selenium standard solution (100 ppm Se)	12	5002500	100	ml
Selenium standard solution 40 times concentrated (40 ppm Se)	12	5002501C	100	ml
Sodium standard solution 10 times concentrated (2000 ppm Na)	12	5002700C	100	ml
Sodium standard solution (1000 ppm Na)	12	5005700	100	ml
Strontium standard solution (1.0 per cent Sr)	12	5003900	100	ml
Sulphate standard solution 10 times concentrated (1000 ppm)	12	5002802C	100	ml
Sulphate standard solution 100 times concentrated (1000 ppm)	12	5002800C	100	ml
Sulphate standard solution R1 100 times concentrated (1000 ppm SO4)	12	5002801C	100	ml
Sulfite standard solution 200 times concentrated (16000 ppm SO2)	12	5005500C	100	ml
Sulphite standard solution (1.5 ppm SO2)	12	5002900	100	ml
Thallium standard solution 10 times concentrated (100 ppm Tl)	12	5003000C	100	ml
Tin standard solution 100 times concentrated (500 ppm Sn)	12	5003100C	100	ml
Titanium standard solution (100 ppm Ti)	12	5003200	100	ml
Vanadium standard solution (1 g/l V)	12	5003300	100	ml
Zinc standard solution (5 mg/mL Zn).	12	5003400	100	ml
Zinc standard solution 10 times concentrated (1000 ppm Zn)	12	5003401C	100	ml
Zirconium standard solution (1 g/l Zr)	12	5003500	100	ml

Buffer Solutions

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Buffered acetone solution	12	4000100	1000	ml
Buffer solution pH 2.0	12	4000200	1000	ml
Phosphate buffer solution pH 2.0	12	4007900	1000	ml
Sulphate buffer solution pH 2.0	12	4008900	1000	ml
Buffer solution pH 2.2	12	4010500	1000	ml
Buffer solution pH 2.5	12	4000300	1000	ml
Buffer solution pH 2.5 R1	12	4000400	1000	ml
Phosphate buffer solution pH 2.8	12	4010600	1000	ml
Buffer solution pH 3.0	12	4008000	1000	ml
Phosphate buffer solution pH 3.0	12	4000500	1000	ml
Phosphate buffer solution pH 3.0 R1	12	4010000	1000	ml
0.25 M Citrate buffer solution pH 3.0	12	4012600	100	ml
0.1 M Phosphate buffer solution pH 3.0	12	4011500	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phosphate buffer solution pH 3.2	12	4008100	1000	ml
Phosphate buffer solution pH 3.2 R1	12	4008500	1000	ml
Buffer solution pH 3.5	12	4000600	1000	ml
Phosphate buffer solution pH 3.5	12	4000700	1000	ml
Buffer solution pH 3.6	12	4000800	1000	ml
Buffer solution pH 3.7	12	4000900	1000	ml
Buffer copper sulphate solution pH 4.0	12	4001000	1000	ml
Sodium acetate buffer solution pH 4.0 (0.1 M)	12	4013800	1000	ml
Acetate buffer solution pH 4.4	12	4001100	1000	ml
Phtalate buffer solution pH 4.4	12	4001200	1000	ml
Acetate buffer solution pH 4.5	12	4012500	1000	ml
0.05 M Phosphate buffer solution pH 4.5	12	4009000	1000	ml
Sodium acetate buffer solution pH 4.5	12	4010100	1000	ml
Acetate buffer solution pH 4.6	12	4001400	1000	ml
Succinate buffer solution pH 4.6	12	4001500	1000	ml
Acetate buffer solution pH 4.7	12	4001600	1000	ml
Acetate buffer solution pH 4.7 R1	12	4013600	1000	ml
Acetate buffer solution pH 5.0	12	4009100	1000	ml
Citrate buffer solution pH 5.0	12	4010700	1000	ml
Phosphate buffer solution pH 5.0	12	4011300	1000	ml
Buffer solution pH 5.2	12	4001700	1000	ml
0.067 M Phosphate buffer solution pH 5.4	12	4012000	1000	ml
Acetate-edetate buffer solution pH 5.5	12	4001900	1000	ml
Buffer solution pH 5.5	12	4001800	1000	ml
Phosphate buffer solution pH 5.5	12	4002000	1000	ml
Phosphate-citrate buffer solution pH 5.5	12	4008700	1000	ml
Phosphate buffer solution pH 5.6	12	4011200	1000	ml
Phosphate buffer solution pH 5.8	12	4002100	1000	ml
Acetate buffer solution pH 6.0	12	4002200	1000	ml
Diethylammonium phosphate buffer solution pH 6.0	12	4002300	1000	ml
Phosphate buffer solution pH 6.0	12	4002400	1000	ml
Phosphate buffer solution pH 6.0 R1	12	4002500	1000	ml
Phosphate buffer solution pH 6.0 R2	12	4002600	1000	ml
Phosphate buffer solution pH 6.4	12	4002800	1000	ml
0.5M Phtalate buffer solution pH 6.4	12	4009200	1000	ml
Buffer solution pH 6.5	12	4002900	1000	ml
Imidazole buffer solution pH 6.5	12	4003000	1000	ml
0.1 M phosphate buffer solution pH 6.5	12	4010800	1000	ml
Phosphate buffer solution pH 6.5	12	4012800	1000	ml
Buffer solution pH 6.6	12	4003100	1000	ml
Phosphate buffered saline pH 6.8	12	4003200	1000	ml
Phosphate buffer solution pH 6.8	12	4003300	1000	ml
Phosphate buffer solution pH 6.8 R1	12	4003400	1000	ml
1 M tris-hydrochloride buffer solution pH 6.8	12	4009300	500	ml
Buffer solution pH 7.0	12	4003500	1000	ml
Maleate buffer solution pH 7.0	12	4003600	1000	ml
Phosphate buffer solution pH 7.0	12	4003700	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
0.025M Phosphate buffer solution pH 7.0	12	4009400	1000	ml
0.03M Phosphate buffer solution pH 7.0	12	4010300	1000	ml
0.05 M Phosphate buffer solution pH 7.0	12	4012400	1000	ml
0.063M Phosphate buffer solution pH 7.0	12	4009500	1000	ml
0.067M Phosphate buffer solution pH 7.0	12	4003800	1000	ml
0.03M Phosphate buffer solution pH 7.0 R1	12	4003900	1000	ml
0.1M Phosphate buffer solution pH 7.0	12	4008200	1000	ml
Phosphate buffer solution pH 7.0 R2	12	4004000	1000	ml
Phosphate buffer solution pH 7.0 R3	12	4008600	1000	ml
Phosphate buffer solution pH 7.0 R4	12	4010200	1000	ml
Phosphate buffer solution pH 7.0 R5	12	4011400	1000	ml
Tetrabutylammonium buffer solution pH 7.0	12	4010900	1000	ml
Buffered salt solution pH 7.2	12	4004300	1000	ml
Buffer solution pH 7.2	12	4004100	1000	ml
Phosphate buffer solution pH 7.2	12	4004200	1000	ml
Barbital buffer solution pH 7.4	12	4004700	1000	ml
Buffer solution pH 7.4	12	4004600	1000	ml
Imidazole buffer solution pH 7.3	12	4004500	1000	ml
Phosphate buffered saline pH 7.4	12	4005000	1000	ml
Phosphate buffer solution pH 7.4	12	4004800	1000	ml
Tris(hydroxymethyl)aminomethane buffer solution pH 7.4	12	4012100	500	ml
Tris(hydroxymethyl)aminomethane sodium chloride buffer solution pH 7.4	12	4004900	1000	ml
Tris(hydroxymethyl)aminomethane sodium chloride buffer solution pH 7.4 R1	12	4012200	100	ml
Tris-sodium acetate buffer solution pH 7.4	12	4012900	1000	ml
Tris-sodium acetate-sodium chloride buffer solution pH 7.4	12	4013000	1000	ml
Borate buffer solution pH 7.5	12	4005200	1000	ml
0.2M Phosphate buffer solution pH 7.5	12	4005400	1000	ml
0.33M Phosphate buffer solution pH 7.5	12	4005300	1000	ml
Tris(hydroxymethyl)aminomethane buffer solution pH 7.5	12	4005500	1000	ml
0.05 M Tris-hydrochloride buffer solution pH 7.5	12	4005600	1000	ml
Sodium citrate buffer solution pH 7.8 (0.034M sodium citrate, 0.101M sodium chloride)	12	4009800	1000	ml
0.0015 M Borate buffer solution pH 8.0	12	4006000	1000	ml
Buffer solution pH 8.0	12	4005900	1000	ml
Buffer solution pH 8.0 R1	12	4010400	1000	ml
0.02M Phosphate buffer solution pH 8.0	12	4006100	1000	ml
0.1M Phosphate buffer solution pH 8.0	12	4008400	1000	ml
1M Phosphate buffer solution pH 8.0	12	4007800	1000	ml
0.02 M Sodium phosphate buffer solution pH 8.0	12	4013700	1000	ml
Tris-hydrochloride buffer solution pH 8.0	12	4012300	100	ml
1 M Tris-hydrochloride buffer solution pH 8.0	12	4012700	1000	ml
Tris-sodium acetate buffer solution pH 8.0	12	4013100	1000	ml
Tris-sodium acetate-sodium chloride buffer solution pH 8.0	12	4013200	1000	ml
Tris(hydroxymethyl)aminomethane buffer solution pH 8.1	12	4006200	100	ml
Tris-glycine buffer solution pH 8.3	12	4006300	1000	ml
Tris-hydrochloride buffer solution pH 8.3	12	4011800	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Barbital buffer solution pH 8.4	12	4006400	1000	ml
Tris(hydroxymethyl)aminomethane-EDTA buffer solution pH 8.4	12	4006600	500	ml
Phosphate buffer solution pH 8.5	12	4013300	1000	ml
Tris acetate buffer solution pH 8.5	12	4006700	1000	ml
Barbital buffer solution pH 8.6 R1	12	4006900	1000	ml
1.5M tris-hydrochloride buffer solution pH 8.8	12	4009900	1000	ml
Buffer solution pH 9.0	12	4007000	1000	ml
Buffer solution pH 9.0 R1	12	4007100	1000	ml
Buffer (phosphate) solution pH 9.0	12	4008300	1000	ml
0.05 M Tris-hydrochloride buffer solution pH 9.0	12	4013500	100	ml
Ammonium chloride buffer solution pH 9.5	12	4007200	1000	ml
Ammonium chloride buffer solution pH 10.0	12	4007300	1000	ml
Diethanolamine buffer solution pH 10.0	12	4007500	1000	ml
0.1 M Ammonium carbonate buffer solution pH 10.3	12	4011900	1000	ml
Ammonium chloride buffer solution pH 10.4	12	4011000	1000	ml
Borate buffer solution pH 10.4	12	4011100	1000	ml
Ammonium chloride buffer solution pH 10.7	12	4013400	1000	ml
Buffer solution pH 10.9	12	4007600	1000	ml
Total-ionic-strength-adjustment buffer	12	4007700	1000	ml
Total-ionic-strength-adjustment buffer R1	12	4008800	1000	ml

Primary standards for volumetric solutions

Primary standards are prepared as per the methods described in chapter 4.2.1 of Ph Eur.

Each bottle is accompanied by a Certificate of Analysis.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Benzoic Acid - C7H6O2	36	2000200	100	g
Potassium Bromate - KBrO3	36	2000300	50	g
Potassium Hydrogen Phthalate - C8H5KO4	36	2000400	50	g
Sodium Carbonate - Na2CO3 (anhhydrous)	36	2000500	50	g
Sodium Chloride - NaCl	36	2000600	250	g
Sulphanilic Acid - C6H7NO3S	36	2000700	100	g
Zinc - Zn	36	2000800	100	g

Volumetric solutions

Volumetric solutions are prepared according to the usual chemical analytical methods. The accuracy of the apparatus used is verified to ensure that it is appropriate for the intended use.

The concentration of volumetric solutions is indicated in terms of molarity. Molarity expresses, as the number of moles, the amount of substance dissolved in 1 L of solution. The molarity of the volumetric solutions is determined by an appropriate number of titrations. The repeatability does not exceed 0.2 per cent (relative standard deviation).

Volumetric solutions are standardized by the methods described in Ph Eur and accompanied by a Cerificate of Analysis.

The identity of C.P.A. Products Codes with Ph Eur Codes (seven-figure reference code which will remain unchanged for a given reagent during subsequent revisions) makes the desired product easy to find.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic acid 0.1 M	24	3008900	1000	ml
Ammonium and cerium nitrate 0.01 M	12	3000200	1000	ml
Ammonium and cerium nitrate 0.1 M	24	3000100	1000	ml
Ammonium and cerium sulphate 0.01M	12	3000400	1000	ml
Ammonium and cerium sulphate 0.1M	12	3000300	1000	ml
Ammonium thiocyanate 0.1M	24	3000500	1000	ml
Barium chloride 0.1M	12	3000600	1000	ml
Barium perchlorate 0.025M	12	3009600	1000	ml
Barium perchlorate 0.05M	12	3000700	1000	ml
Benzethonium chloride 0.004 M	24	3000900	1000	ml
Bismuth nitrate 0.01 M	12	3010000	1000	ml
Bromide-bromate 0.0167M	12	3001000	1000	ml
Cerium sulphate 0.1 M	24	3001100	1000	ml
Copper sulphate 0.02M	12	3001200	1000	ml
Cupriethylenediamine hydroxide solution 1M	12	3008700	1000	ml
Cupriethylenediamine hydroxide solution 1M	12	3008700a	100	ml
Ferric ammonium sulphate 0.1M	24	3001300	1000	ml
Ferrous sulphate 0.1M	6	3001400	1000	ml
Hydrochloric acid 0.1M	24	3002100	1000	ml
Hydrochloric acid 1M	24	3001800	1000	ml
Hydrochloric acid 2M	24	3001700	1000	ml
Hydrochloric acid 3M	24	3001600	1000	ml
Hydrochloric acid 6M	24	3001500	1000	ml
Hydrochloric acid, alcoholic 0.1M	12	3008800	1000	ml
Hydrochloric acid, alcoholic 0.1M	12	3008800a	100	ml
Iodine 0.01M	12	3002900	1000	ml
Iodine 0.01M	12	3002900a	100	ml
Iodine 0.05M	12	3002700	1000	ml
Iodine 0.5M	12	3009400	1000	ml
Lanthanum Nitrate 0.1M	12	3010100	1000	ml
Lanthanum Nitrate 0.1M	12	3010100a	100	ml
Lead nitrate 0.05M	12	3009700	1000	ml
Lead nitrate 0.1M	24	3003100	1000	ml
Magnesium chloride 0.1M	24	3003400	1000	ml
Nitric acid 1M	24	3003600	1000	ml
Perchloric acid 0.025M	12	3009900	1000	ml
Perchloric acid 0.025M	12	3009900a	100	ml
Perchloric acid 0.05M	12	3004000	1000	ml
Perchloric acid 0.05M	12	3004000a	100	ml
Perchloric acid 0.1M	12	3003900	1000	ml
Potassium bromate 0.0083M	12	3004500	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium bromate 0.0167M	12	3004400	1000	ml
Potassium bromate 0.02M	12	3004300	1000	ml
Potassium bromate 0.033M	12	3004200	1000	ml
Potassium dichromate 0.0167M	24	3004600	1000	ml
Potassium hydrogen phthalate 0.1M	12	3004700	1000	ml
Potassium Hydroxide 0.1M	24	3004800	1000	ml
Potassium Hydroxide 1M	24	3009100	1000	ml
Potassium Hydroxide alcoholic 0.01M	12	3009000	1000	ml
Potassium Hydroxide alcoholic 0.1M	12	3005100	1000	ml
Potassium Hydroxide alcoholic 0.5M	12	3005000	1000	ml
Potassium Hydroxide in alcohol (60% v/v) 0.5M	12	3004900	1000	ml
Potassium iodate 0.05M	12	3005200	1000	ml
Potassium iodide 0.001M	6	3009200	1000	ml
Potassium permanganate 0.02M	24	3005300	1000	ml
Silver nitrate 0.001M	6	3009300	1000	ml
Silver nitrate 0.001M	6	3009300a	500	ml
Silver nitrate 0.1M	24	3005600	1000	ml
Sodium arsenite 0.1M	12	3005800	500	ml
Sodium edetate 0.02M	24	3006000	1000	ml
Sodium edetate 0.1M	24	3005900	1000	ml
Sodium hydroxide 0.1M	24	3006600	1000	ml
Sodium hydroxide 1M	24	3006300	1000	ml
Sodium hydroxide 2M	12	3009800	1000	ml
Sodium hydroxide, ethanolic 0.1M	12	3007000	1000	ml
Sodium methoxide 0.1M	12	3007100	1000	ml
Sodium nitrite 0.1M	6	3007200	1000	ml
Sodium periodate 0.1M	12	3009500	1000	ml
Sodium thiosulphate 0.1M	24	3007300	1000	ml
Sulphuric acid 0.05M	24	3008000	1000	ml
Sulphuric acid 0.5M	24	3007800	1000	ml
Tetrabutylammonium hydroxide 0.1M	12	3008300	1000	ml
Tetrabutylammonium hydroxide 0.1M	12	3008300a	100	ml
Tetrabutylammonium hydroxide in 2-propanol, 0.1M	12	3008400	1000	ml
Zinc chloride 0.05M	24	3008500	1000	ml
Zinc sulphate 0.1M	24	3008600	1000	ml

Residual solvents

The International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) has adopted Impurities Guidelines for Residual Solvents which prescribes limits for the content of solvents which may remain in active substances, excipients and medicinal products after processing. The European Pharmacopoeia is, however, applying the same principles enshrined in the guideline to existing active substances, excipients and medicinal products whether or not they are the subject of a monograph of the Pharmacopoeia.

Residual solvents were evaluated for their possible risk to human health and placed into one of three classes as follows:

Class 1 solvents: Solvents to be avoided

Known human carcinogens, strongly suspected human carcinogens, and environmental hazards.

Class 2 solvents: Solvents to be limited

Non-genotoxic animal carcinogens or possible causative agents of other irreversible toxicity such as neurotoxicity or teratogenicity.

Solvents suspected of other significant but reversible toxicities.

Solvents with low toxic potential to man; no health-based exposure limit is needed.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Residual Solvents Class 1 (5 times concentrated): Benzene [CAS:71-43-2] 10 ppm; Tetrachloromethane (Carbon tetrachloride) [CAS:56-23-5] 20 ppm; 1,2-Dichloroethane [CAS:107-06-2] 25 ppm; 1,1-Dichloroethene [CAS:75-35-4] 40 ppm; Trichloroethene [CAS:79-01-6] 50 ppm in Dimethylsulfoxide	12	F131680	1	ml
Residual Solvents Class 2 (ready-to-use): Acetonitrile [CAS:75-05-8] 20.5 ppm; Chlorobenzene [CAS:108-90-7] 18 ppm; Cyclohexane [CAS:110-82-7] 194 ppm; cis-1,2-Dichloroethene [CAS:156-59-2] 46.8 ppm; trans-1,2-Dichloroethene [CAS:156-60-5] 46.8 ppm; Dichloromethane [CAS:75-09-2] 30 ppm; N,N-Dimethylacetamide [CAS:127-19-5] 54.5 ppm; Dimethylformamide [CAS:68-12-02] 44 ppm; Dioxan [CAS:123-91-1] 19 ppm; 2-Ethoxyethanol [CAS:110-80-5] 8 ppm; Methanol [CAS:67-56-1] 150 ppm; 2-Methoxyethanol [CAS:109-86-4] 2.5 ppm; Methylbutylketone [CAS:591-78-6] 2.5 ppm; Methylcyclohexane [CAS:108-87-2] 59 ppm; Tetrahydrofuran [CAS:109-99-9] 36 ppm; Toluene [CAS:108-88-3] 44.5 ppm; m-Xylene [CAS:108-38-3] 65.1 ppm; p-Xylene [CAS:106-42-3] 15.2 ppm; o-Xylene [CAS:95-47-6] 9.8 ppm; Ethylbenzene [CAS:100-41-4] 18.5 ppm in Dimethylsulfoxide	12	F524720	1	ml
Residual Solvents Class 2 (ready-to-use): Chloroform [CAS:67-66-3] 3 ppm; 1,2-Dimethoxyethane [CAS:110-71-4] 5 ppm; Ethyleneglycol [CAS:107-21-1] 31 ppm; Formamide [CAS:75-12-7] 11 ppm; n-Hexane [CAS:110-54-3] 14.5 ppm; N-Methylpyrrolidone [CAS:872-50-4] 26.5 ppm; Nitromethane [CAS:75-52-5] 2.5 ppm; Pyridine [CAS:110-86-1] 10 ppm; Sulfolan [CAS:126-33-0] 8; Tetralin [CAS:119-64-2] 4 ppm; 1,1,2-Trichloroethene [CAS:79-01-6] 5 ppm in Dimethylsulfoxide	12	F524730	1	ml

U. S. Pharmacopoeia Products

Reagents, Indicators, *and* Solutions

This section deals with the solutions required in conducting the Pharmacopeial and the National Formulary tests and assays.

Reagents are substances used either as such or as constituents of solutions.

Indicators are reagents used to determine the specified end-point in a chemical reaction, to measure hydrogen-ion concentration (pH), or to indicate that a desired change in pH has been effected. They are listed together with indicator test papers.

Buffer Solutions are referred to separately.

Colorimetric Solutions, abbreviated „CS," are solutions used in the preparation of colorimetric standards for comparison purposes.

Test Solutions, abbreviated „TS," are solutions of reagents in such solvents and of such definite concentrations as to be suitable for the specified purposes.

Volumetric Solutions, abbreviated „VS" and known also as Standard Solutions, are solutions of reagents of known concentration intended primarily for use in quantitative determinations. Concentrations are usually expressed in terms of normality.

Water - Purified Water (USP monograph) is always used. „Carbon dioxide-free water" is purified water that has been boiled vigorously for 5 minutes or more and allowed to cool while protected from absorption of carbon dioxide from the atmosphere, or Purified Water that has a resistivity of not less than 18 Mohm-cm. „Deaerated water," for purposes other than dissolution and drug release testing, is Purified Water that has been treated to reduce the content of dissolved air by suitable means, such as by boiling vigorously for 5 minutes and cooling or by the application of ultrasonic vibration.

Solutions acc. to Reagent Specifications

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid, Diluted	24	USP350	1000	ml
Alcohol, 70 Percent	12	USP351	100	ml
Alcohol, 80 Percent	12	USP352	100	ml
Alcohol, 90 Percent	12	USP353	100	ml
Kit of alcoholic solution (70, 80, 90%)	12	USP354	3 x100	ml
Alcohol, Aldehyde-free	12	USP355	1000	ml
Ammonium Hydroxide, 6 N	12	USP356	1000	ml
Diluted Acetic Acid ≡ Acetic Acid, Diluted	12	USP350		
Diluted Hydrochloric Acid ≡ Hydrochloric Acid, Diluted	12	USP362		
Diluted Nitric Acid ≡ Nitric Acid, Diluted.	12	USP364		
Diluted Sulfuric Acid ≡ Sulfuric Acid, Diluted	12	USP367		
Hydrochloric Acid, Diluted (10 percent)	12	USP362	1000	ml
Methanol, Aldehyde-Free	12	USP363	1000	ml
Nitric Acid, Diluted (10 percent HNO3)	12	USP364	1000	ml
STANDARD NITROGEN SOLUTION (0.1 mg/ml N)	12	USP365	100	ml
POTASSIUM IODATE SOLUTION (0.25 N)	12	USP366	500	ml
Sulfuric Acid, Diluted (10 percent)	12	USP367	1000	ml

Buffer Solutions

The successful completion of many Pharmacopeial tests and assays requires adjustment to or maintenance solutions. In pH measurements, standard buffer solutions are required for reference purposes

A solution is said to be buffered if it resists changes in the activity of an ion on the addition of substances that ion. Buffers are substances or combinations of substances that impart this resistance to a solution. Buffered equilibrium with substances capable of removing or releasing the ion.

Buffer capacity refers to the amount of material that may be added to a solution without causing a significant ratio of acid or base added (in gram-equivalents per liter) to the change in pH (in pH units). The capacity of a conditions of use, usually by adjustment of the concentrations of buffer substances.

Buffers are used to establish and maintain an ion activity within narrow limits. The most common systems are for the calibration of pH meters, (b) in the preparation of dosage forms that approach isotonicity, (c) in analytical stability of various dosage forms.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Hydrochloric Acid Buffer pH 1.2	6	USP001	200	ml
Hydrochloric Acid Buffer pH 1.3	6	USP002	200	ml
Hydrochloric Acid Buffer pH 1.4	6	USP003	200	ml
Hydrochloric Acid Buffer pH 1.5	6	USP004	200	ml
Hydrochloric Acid Buffer pH 1.6	6	USP005	200	ml
Hydrochloric Acid Buffer pH 1.7	6	USP006	200	ml
Hydrochloric Acid Buffer pH 1.8	6	USP007	200	ml
Hydrochloric Acid Buffer pH 1.9	6	USP008	200	ml
Hydrochloric Acid Buffer pH 2.0	6	USP009	200	ml
Hydrochloric Acid Buffer pH 2.1	6	USP010	200	ml
Hydrochloric Acid Buffer pH 2.2	6	USP011	200	ml
Acid Phthalate Buffer pH 2.2	6	USP012	200	ml
Acid Phthalate Buffer pH 2.4	6	USP013	200	ml
Acid Phthalate Buffer pH 2.6	6	USP014	200	ml
Acid Phthalate Buffer pH 2.8	6	USP015	200	ml
Acid Phthalate Buffer pH 3.0	6	USP016	200	ml
Acid Phthalate Buffer pH 3.2	6	USP017	200	ml
Acid Phthalate Buffer pH 3.4	6	USP018	200	ml
Acid Phthalate Buffer pH 3.6	6	USP019	200	ml
Acid Phthalate Buffer pH 3.8	6	USP020	200	ml
Acid Phthalate Buffer pH 4.0	6	USP021	200	ml
Neutralized Phthalate Buffer pH 4.2	6	USP022	200	ml
Neutralized Phthalate Buffer pH 4.4	6	USP023	200	ml
Neutralized Phthalate Buffer pH 4.6	6	USP024	200	ml
Neutralized Phthalate Buffer pH 4.8	6	USP025	200	ml
Neutralized Phthalate Buffer pH 5.0	6	USP026	200	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Neutralized Phthalate Buffer pH 5.2	6	USP027	200	ml
Neutralized Phthalate Buffer pH 5.4	6	USP028	200	ml
Neutralized Phthalate Buffer pH 5.6	6	USP029	200	ml
Neutralized Phthalate Buffer pH 5.8	6	USP030	200	ml
Phosphate Buffer pH 5.8	6	USP031	200	ml
Phosphate Buffer pH 6.0	6	USP032	200	ml
Phosphate Buffer pH 6.2	6	USP033	200	ml
Phosphate Buffer pH 6.4	6	USP034	200	ml
Phosphate Buffer pH 6.6	6	USP035	200	ml
Phosphate Buffer pH 6.8	6	USP036	200	ml
Phosphate Buffer pH 7.0	6	USP037	200	ml
Phosphate Buffer pH 7.2	6	USP038	200	ml
Phosphate Buffer pH 7.4	6	USP039	200	ml
Phosphate Buffer pH 7.6	6	USP040	200	ml
Phosphate Buffer pH 7.8	6	USP041	200	ml
Phosphate Buffer pH 8.0	6	USP042	200	ml
Alkaline Borate Buffer pH 8.0	6	USP043	200	ml
Alkaline Borate Buffer pH 8.2	6	USP044	200	ml
Alkaline Borate Buffer pH 8.4	6	USP045	200	ml
Alkaline Borate Buffer pH 8.6	6	USP046	200	ml
Alkaline Borate Buffer pH 8.8	6	USP047	200	ml
Alkaline Borate Buffer pH 9.0	6	USP048	200	ml
Alkaline Borate Buffer pH 9.2	6	USP049	200	ml
Alkaline Borate Buffer pH 9.4	6	USP050	200	ml
Alkaline Borate Buffer pH 9.6	6	USP051	200	ml
Alkaline Borate Buffer pH 9.8	6	USP052	200	ml
Alkaline Borate Buffer pH 10.0	6	USP053	200	ml
Acetate Buffer pH 4.1	6	USP054	200	ml
Acetate Buffer pH 4.3	6	USP055	200	ml
Acetate Buffer pH 4.5	6	USP056	200	ml
Acetate Buffer pH 4.7	6	USP057	200	ml
Acetate Buffer pH 4.9	6	USP058	200	ml
Acetate Buffer pH 5.1	6	USP059	200	ml
Acetate Buffer pH 5.2	6	USP060	200	ml
Acetate Buffer pH 5.3	6	USP061	200	ml
Acetate Buffer pH 5.4	6	USP062	200	ml
Acetate Buffer pH 5.5	6	USP063	200	ml
Acetate Buffer pH 3.5 for Heavy metals	12	USP064	1000	ml

Colorimetric Solutions (CS)

These solutions are used in the preparation of the colorimetric standards for certain drugs, and for the carbonization tests with sulfuric acid that are specified in several monographs.

Comparison of colors as directed in the Pharmacopeial tests preferably is made in matched color-comparison tubes or in a suitable colorimeter under conditions that ensure that the colorimetric reference solution and that of the specimen under test are treated alike in all respects. The comparison of colors is best made in layers of equal depth, and viewed transversely against a white background (see also *Visual Comparison* under *Spectrophotometry and Light-Scattering* 851). It is particularly important that the solutions be compared at the same temperature, preferably 25°C.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Cobaltous Chloride CS	12	USP065	100	ml
Cupric Sulfate CS	12	USP066	100	ml
Ferric Chloride CS	12	USP067	100	ml

Indicator Solutions

See Test Solutions (TS)

Volumetric Solutions

Normal Solutions - Normal solutions are solutions that contain 1 gram equivalent weight of the active substance in each 1000 mL of solution; that is, an amount equivalent to 1.0079 g of hydrogen or 7.9997 g of oxygen. Normal solutions and solutions bearing a specific relationship to normal solutions, and used in volumetric determinations, are designated as follows: normal, 1 N; double-normal, 2 N; half-normal, 0.5 N; tenth-normal, 0.1 N; fiftieth-normal, 0.02 N; hundredth-normal, 0.01 N; thousandth-normal, 0.001 N.

Molar Solutions - Molar solutions are solutions that contain, in 1000 mL, 1 gram-molecule of the reagent. Solutions containing, in 1000 mL, one-tenth of a gram-molecule of the reagent are designated „tenth-molar," 0.1 M; and other molarities are similarly indicated.

Empirical Solutions - It is frequently difficult to prepare standard solutions of a desired theoretical normality, and this is not essential. A solution of approximately the desired normality is prepared and standardized by titration against a primary standard solution. The normality factor so obtained is used in all calculations where such empirical solutions are employed.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid, Double-Normal (2 N)	12	USP088	1000	ml
Ammonium Thiocyanate, Tenth-Normal (0.1 N)	12	USP089	1000	ml
Bromine, Tenth-Normal (0.1 N)	12	USP090	1000	ml
Ceric Ammonium Nitrate, Twentieth-Normal (0.05 N)	12	USP091	1000	ml
Ceric Sulfate, Tenth-Normal (0.1 N)	24	USP092	1000	ml
Cupric Nitrate, Tenth Normal (0.1 N)	12	USP093	1000	ml
Edetate Disodium, Twentieth-Molar (0.05 M)	24	USP094	1000	ml
Ferric Ammonium Sulfate, Tenth-Normal (0.1 N)	12	USP095	1000	ml
Ferrous Ammonium Sulfate, Tenth-Normal (0.1 N)	12	USP096	1000	ml
Hydrochloric Acid, Normal (1 N)	24	USP097	1000	ml
Hydrochloric Acid, Half-Normal (0.5 N)	24	USP098	1000	ml
Hydrochloric Acid, Half-Normal (0.5 N) in Methanol	24	USP099	1000	ml
Hydrochloric Acid, Alcoholic, Tenth-Molar (0.1 M)	24	USP100	1000	ml
Iodine, Tenth-Normal (0.1 N)	12	USP101	1000	ml
Iodine, Hundredth-Normal (0.01 N)	12	USP102	1000	ml
Lead Nitrate, Hundredth-Molar (0.01 M)	24	USP103	1000	ml
0.1 M Lead Nitrate	24	USP104	1000	ml
Lead Perchlorate, Tenth-Molar (0.1 M)	12	USP105	1000	ml
Lead Perchlorate, Hundredth Molar (0.01 M)	12	USP106	1000	ml
Lithium Methoxide, Fiftieth-Normal (0.02 N) in Methanol	12	USP107	1000	ml
Lithium Methoxide, Tenth-Normal (0.1 N) in Chlorobenzene	12	USP108	1000	ml
Lithium Methoxide, Tenth-Normal (0.1 N) in Methanol	12	USP109	1000	ml
Lithium Methoxide, Tenth-Normal (0.1 N) in Toluene	12	USP110	1000	ml
Mercuric Nitrate, Tenth-Molar (0.1 M)	12	USP111	1000	ml
Oxalic Acid, Tenth-Normal (0.1 N)	12	USP112	1000	ml
Perchloric Acid, Tenth-Normal (0.1 N) (in Glacial Acetic Acid)	12	USP113	1000	ml
Perchloric Acid, Tenth-Normal (0.1 N) in Dioxane	12	USP114	1000	ml
Potassium Bromate, Tenth-Normal (0.1 N)	12	USP115	1000	ml
Potassium Bromide–Bromate, Tenth-Normal (0.1 N)	12	USP116	1000	ml
Potassium Dichromate, Tenth-Normal (0.1 N)	24	USP117	1000	ml
Potassium Ferricyanide, Twentieth-Molar (0.05 M)	12	USP118	1000	ml
Potassium Hydroxide, Normal (1 N)	24	USP119	1000	ml
Potassium Hydroxide, Alcoholic, Half-Normal (0.5 N)	12	USP120	1000	ml
Potassium Hydroxide, Alcoholic, Tenth-Molar (0.1 M)	12	USP121	1000	ml
Potassium Hydroxide, Methanolic, Tenth-Normal (0.1 N)	12	USP122	1000	ml
Potassium Iodate, Twentieth-Molar (0.05 M)	12	USP123	1000	ml
Potassium Permanganate, Tenth-Normal (0.1 N)	12	USP124	1000	ml
Silver Nitrate, Tenth-Normal (0.1 N)	24	USP125	1000	ml
Sodium Arsenite, Twentieth-Molar (0.05 M)	12	USP126	1000	ml
Sodium Hydroxide, Normal (1 N)	12	USP127	1000	ml
Sodium Hydroxide, Alcoholic, Tenth-Normal (0.1 N)	12	USP128	1000	ml
Sodium Methoxide, Tenth-Normal (0.1 N) (in Toluene)	12	USP129	1000	ml
Sodium Methoxide, Half-Normal (0.5 N) in Methanol	12	USP130	1000	ml
Sodium Nitrite, Tenth-Molar (0.1 M)	12	USP131	1000	ml
Sodium Thiosulfate, Tenth-Normal (0.1 N)	24	USP132	1000	ml
Sulfuric Acid, Half-Normal (0.5 N) in Alcohol	24	USP133	1000	ml
Sulfuric Acid, Normal (1 N)	24	USP134	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Tetrabutylammonium Hydroxide, Tenth-Normal (0.1 N)	3	USP135	100	ml
Tetrabutylammonium Hydroxide in Methanol/Isopropyl Alcohol, 0.1 N	12	USP136	1000	ml
Tetramethylammonium Bromide, Tenth-Molar (0.1 M)	12	USP137	1000	ml
Tetramethylammonium Chloride, Tenth-Molar (0.1 M)	12	USP138	1000	ml
Zinc Sulfate, Twentieth-Molar (0.05 M), Tenth-Normal (0.1 N)	24	USP139	1000	ml

Test Solutions (TS)

Certain of the following test solutions are intended for use as acid-base indicators in volumetric analyses. Similar solutions are intended for use in pH measurement. Where it is directed that a volumetric solution be used as the test solution, standardization of the solution used as TS is not required.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetate Buffer TS	12	USP140	1000	ml
Acetic Acid – Ammonium Acetate Buffer TS	24	USP141	1000	ml
Acetone, Buffered, TS	24	USP142	1000	ml
Acid Ferric Chloride TS	12	USP143	100	ml
Acid Stannous Chloride TS ≡ Stannous Chloride, Acid, TS		USP328		
Acid Stannous Chloride TS, Stronger ≡ Stannous Chloride, Acid, Stronger, TS		USP329		
Alcohol – Phenol TS	12	USP146	100	ml
Alcoholic Mercuric Bromide TS ≡ Mercuric Bromide TS, Alcoholic		USP247		
Alcoholic Potassium Hydroxide TS ≡ Potassium Hydroxide TS, Alcoholic		USP292		
Alkaline Cupric Citrate TS ≡ Cupric Citrate TS, Alkaline		USP199		
Alkaline Cupric Iodide TS ≡ Cupric Iodide TS, Alkaline		USP201		
Alkaline Cupric Tartrate TS (Fehling's Solution) ≡ Cupric Tartrate TS, Alkaline		USP204		
Alkaline Mercuric - Potassium Iodide TS ≡ Mercuric - Potassium Iodide TS, Alkaline		USP252		
Amaranth TS	12	USP156	100	ml
Ammonia - Ammonium Chloride Buffer TS	12	USP157	1000	ml
Ammonia - Cyanide TS	6	USP158	100	ml
Ammonia TS	12	USP159	1000	ml
Ammonia TS	12	USP159a	500	ml
Ammoniacal Potassium Ferricyanide TS	12	USP160a	100	ml
Ammoniated Cupric Oxide TS ≡ Cupric Oxide, Ammoniated, TS		USP202		
Ammonium Acetate TS	12	USP162	100	ml
Ammonium Acetate TS	12	USP162a	1000	ml
Ammonium Carbonate TS	12	USP163	100	ml
Ammonium Carbonate TS	12	USP163a	500	ml
Ammonium Chloride TS	24	USP164	100	ml
Ammonium Chloride TS	24	USP164a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium Chloride - Ammonium Hydroxide TS	12	USP165	100	ml
Ammonium Chloride - Ammonium Hydroxide TS	12	USP165a	500	ml
Ammonium Molybdate TS	12	USP166	100	ml
Ammonium Molybdate TS	12	USP166a	500	ml
Ammonium Oxalate TS	24	USP167	100	ml
Ammonium Oxalate TS	24	USP167a	1000	ml
Ammonium Phosphate, Dibasic, TS (Ammonium Phosphate TS)	24	USP168	100	ml
Ammonium Phosphate, Dibasic, TS (Ammonium Phosphate TS)	24	USP168a	500	ml
Ammonium Thiocyanate TS	18	USP169	100	ml
Ammonium Thiocyanate TS	18	USP169a	1000	ml
Ammonium Vanadate TS	12	USP170	500	ml
Ammonium Vanadate TS	12	USP170a	1000	ml
Antimony Trichloride TS	12	USP171	100	ml
Barium Chloride TS	24	USP172a	1000	ml
Barium Nitrate TS	24	USP173	100	ml
Barium Nitrate TS	24	USP173a	500	ml
Biuret Reagent TS	24	USP174	1000	ml
Blue Tetrazolium TS	12	USP175	100	ml
Brilliant Blue G TS	12	USP176	100	ml
Bromine TS	3	USP177	100	ml
Bromine–Sodium Acetate TS	3	USP178	100	ml
Bromine–Sodium Acetate TS	3	USP178a	500	ml
Bromocresol Blue TS - Use Bromocresol Green TS		USP180		
Bromocresol Green TS	24	USP180	100	ml
Bromocresol Green - Methyl Red TS	12	USP181	100	ml
Bromocresol Purple TS	24	USP182	100	ml
Bromophenol Blue TS	24	USP183	100	ml
Bromothymol Blue TS	24	USP184	100	ml
Buffered Acetone TS ≡ Acetone, Buffered, TS		USP142		
Calcium Chloride TS	12	USP186	100	ml
Calcium Chloride TS	12	USP186a	500	ml
Calcium Sulfate TS	12	USP187	100	ml
Calcium Sulfate TS	12	USP187a	500	ml
Chloral Hydrate TS	12	USP188	100	ml
Chromotropic Acid TS	12	USP189	100	ml
Cobalt - Uranyl Acetate TS	12	USP190	100	ml
Cobaltous Chloride TS	12	USP191	100	ml
Congo Red TS	24	USP192	100	ml
m-Cresol Purple TS	24	USP193	100	ml
Cresol Red TS	12	USP194	100	ml
Cresol Red TS	12	USP194a	250	ml
Cresol Red - Thymol Blue TS	12	USP195	100	ml
Crystal Violet TS	12	USP196	100	ml
Cupric Acetate TS	12	USP197	100	ml
Cupric Acetate TS	12	USP197a	500	ml
Cupric Acetate TS, Stronger (Barfoed's Reagent)	12	USP198	100	ml
Cupric Acetate TS, Stronger (Barfoed's Reagent)	12	USP198a	500	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Cupric Citrate TS	12	USP199	100	ml
Cupric Citrate TS	12	USP199a	1000	ml
Cupric Citrate TS, Alkaline	12	USP200	100	ml
Cupric Citrate TS, Alkaline	12	USP200a	1000	ml
Cupric Iodide TS, Alkaline	6	USP201	100	ml
Cupric Iodide TS, Alkaline	6	USP201a	1000	ml
Cupric Oxide, Ammoniated, TS (Schweitzer's Reagent)	12	USP202	100	ml
Cupric Sulfate TS	12	USP203	100	ml
Cupric Tartrate TS, Alkaline (Fehling's Solution) (A+B)	12	USP204	500+500	ml
The Copper Solution (A)	12	USP205	500	ml
The Alkaline Tartrate Solution (B)	12	USP206	500	ml
Delafield's Hematoxylin TS	6	USP207	100	ml
Denigus' Reagent ≡ Mercuric Sulfate TS		USP253		
Diazobenzenesulfonic Acid TS	12	USP209	100	ml
Dichlorofluorescein TS	12	USP210	100	ml
Dichlorofluorescein TS	12	USP210a	500	ml
Diluted Lead Subacetate TS ≡ Lead Subacetate TS, Diluted		USP239		
Dinitrophenylhydrazine TS	6	USP212	50	ml
Diphenylamine TS	12	USP213	100	ml
Diphenylamine TS	12	USP213a	500	ml
Diphenylcarbazone TS	12	USP214	100	ml
Dragendorff's TS (A+B)	6	USP215	100	ml
Edetate Disodium TS	12	USP216	500	ml
Edetate Disodium TS	12	USP216a	1000	ml
Eosin Y TS	12	USP217	50	ml
Eriochrome Black TS	12	USP218	100	ml
Eriochrome Cyanine TS	12	USP219	100	ml
Fehling's Solution ≡ Cupric Tartrate TS, Alkaline		USP204		
Ferric Ammonium Sulfate TS	12	USP221	100	ml
Ferric Ammonium Sulfate TS	12	USP221a	1000	ml
Ferric Chloride TS	18	USP222	100	ml
Ferric Chloride TS	18	USP222a	1000	ml
Ferroin TS	12	USP223	100	ml
Folin-Ciocalteu Phenol TS	12	USP224	100	ml
Folin-Ciocalteu Phenol TS	12	USP224a	1000	ml
Formaldehyde TS	12	USP225	100	ml
Glycerin Base TS	24	USP226	100	ml
Hydroxylamine Hydrochloride TS	12	USP227	100	ml
8-Hydroxyquinoline TS	12	USP228	100	ml
Indigo Carmine TS	3	USP229	100	ml
Intestinal Fluid, Simulated, TS (without pancreatin)	12	USP230	500	ml
Intestinal Fluid, Simulated, TS (without pancreatin)	12	USP230a	100	ml
Iodine, Diluted TS	12	USP231	1000	ml
Iodine and Potassium Iodide TS	12	USP232	100	ml
Iodobromide TS	12	USP233	100	ml
Iodobromide TS	12	USP233a	500	ml
Iodochloride TS	12	USP234	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Iodochloride TS	12	USP234a	100	ml
Iron Salicylate TS	2	USP235	100	ml
Lead Acetate TS	6	USP236	100	ml
Lead Acetate TS, Alcoholic	12	USP237	100	ml
Lead Acetate TS, Alcoholic	12	USP237a	500	ml
Lead Subacetate TS	6	USP238	100	ml
Lead Subacetate TS, Diluted	6	USP239	125	ml
Litmus TS	12	USP240	100	ml
Magnesia Mixture TS	6	USP241	100	ml
Magnesium Sulfate TS	12	USP242	100	ml
Malachite Green TS	12	USP243	100	ml
Mayer's Reagent ≡ Mercuric - Potassium Iodide TS		USP251		
Mercuric Acetate TS	12	USP245	100	ml
Mercuric - Ammonium Thiocyanate TS	18	USP246	500	ml
Mercuric - Ammonium Thiocyanate TS	18	USP246a	1000	ml
Mercuric Bromide TS, Alcoholic	12	USP247	100	ml
Mercuric Chloride TS	12	USP248	100	ml
Mercuric Iodide TS (Valser's Reagent)	6	USP249	100	ml
Mercuric Nitrate TS	12	USP250	100	ml
Mercuric - Potassium Iodide TS (Mayer's Reagent)	12	USP251	100	ml
Mercuric - Potassium Iodide TS, Alkaline (Nessler's Reagent)	12	USP252	500	ml
Mercuric Sulfate TS (Denigus' Reagent)	18	USP253	100	ml
Mercuric Sulfate TS (Denigus' Reagent)	18	USP253a	500	ml
Mercurous Nitrate TS	12	USP254	100	ml
3-Methyl-2-benzothiazolinone Hydrazone Hydrochloride TS	6	USP255	100	ml
Methyl Orange TS	24	USP256	100	ml
Methyl Red TS	18	USP257	100	ml
Methyl Violet TS ≡ Crystal Violet TS		USP196		
Methyl Yellow TS	18	USP259	100	ml
Methyl Yellow - Methylene Blue TS	12	USP260	125	ml
Methylene Blue TS	12	USP261	100	ml
Methylthionine Perchlorate TS	6	USP262	100	ml
Methylthionine Perchlorate TS	6	USP262a	500	ml
Molybdo-phosphotungstate TS	12	USP263	100	ml
2-Naphthol TS (Betanaphthol TS)	12	USP264	100	ml
p-Naphtholbenzein TS	12	USP265	100	ml
p-Naphtholbenzein TS	12	USP265a	500	ml
N-(1-Naphthyl)ethylenediamine Dihydrochloride TS	6	USP266	100	ml
Nessler's Reagent ≡ Mercuric–Potassium Iodide TS, Alkaline		USP252		
Neutral Red TS	12	USP268	100	ml
Nickel Standard Solution TS (100 times concentrated)	12	USP269	100	ml
p-Nitroaniline TS	12	USP270	100	ml
Orthophenanthroline TS	12	USP271	100	ml
Oxalic Acid TS	24	USP272	500	ml
Oxalic Acid TS	24	USP272a	1000	ml
Palladium Chloride TS, Buffered	12	USP273	100	ml
Palladium Chloride TS, Buffered	12	USP273a	50	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Perchloric Acid TS	12	USP274	100	ml
Perchloric Acid TS	12	USP274a	500	ml
Phenol Red TS	18	USP275	100	ml
Phenol Red TS	18	USP275a	500	ml
pH 4.7 Phenol Red TS	18	USP276	100	ml
pH 4.7 Phenol Red TS	18	USP276a	500	ml
Phenoldisulfonic Acid TS	12	USP277	100	ml
Phenolphthalein TS	24	USP278	100	ml
Phenylhydrazine Acetate TS	12	USP279	100	ml
Phenylhydrazine Acetate TS	12	USP279a	500	ml
Phenylhydrazine–Sulfuric Acid TS	12	USP280	100	ml
Phenylhydrazine–Sulfuric Acid TS	12	USP280a	500	ml
Phloroglucinol TS	12	USP281	100	ml
Phloroglucinol TS	12	USP281a	500	ml
Phosphomolybdic Acid TS	12	USP282	100	ml
Phosphomolybdic Acid TS	12	USP282a	500	ml
Phosphotungstic Acid TS	12	USP283	100	ml
Platinic Chloride TS	12	USP284	10	ml
Platinum–Cobalt TS	24	USP285	100	ml
Platinum–Cobalt TS	24	USP285a	1000	ml
Potassium Acetate TS	12	USP286	100	ml
Potassium Acetate TS	12	USP286a	500	ml
Potassium–Bismuth Iodide TS	12	USP287	500	ml
Potassium–Bismuth Iodide TS	12	USP287a	100	ml
Potassium Carbonate TS	18	USP288	100	ml
Potassium Carbonate TS	18	USP288a	500	ml
Potassium Chromate TS	24	USP289	100	ml
Potassium Chromate TS	24	USP289a	500	ml
Potassium Dichromate TS	24	USP290	100	ml
Potassium Dichromate TS	24	USP290a	500	ml
Potassium Hydroxide TS	24	USP291	100	ml
Potassium Hydroxide TS	24	USP291a	500	ml
Potassium Hydroxide TS, Alcoholic - Use 0.5 N Potassium Hydroxide, Alcoholic (see in the section Volumetric Solutions)		USP120		
Potassium Iodide TS	12	USP294	100	ml
Potassium Iodide TS	12	USP294a	500	ml
Potassium Iodide and Starch TS	12	USP295	100	ml
Potassium Iodoplatinate TS	12	USP296	50	ml
Potassium Permanganate TS - Use 0.1 N Potassium Permanganate (see in the section Volumetric Solutions)		USP124		
Potassium Pyroantimonate TS	12	USP299	100	ml
Potassium Pyroantimonate TS	12	USP299a	500	ml
Potassium Sulfate TS	24	USP300	100	ml
Potassium Sulfate TS	24	USP300a	500	ml
Potassium Thiocyanate TS	24	USP301	100	ml
Potassium Thiocyanate TS	24	USP301a	500	ml
Quinaldine Red TS	24	USP302	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Resorcinol TS	12	USP303	100	ml
Ruthenium Red TS	12	USP304	100	ml
Schweitzer's Reagent ≡ Cupric Oxide, Ammoniated, TS		USP202		
Silver - Ammonia–Nitrate TS	6	USP306	100	ml
Silver - Ammonium Nitrate TS ≡ Silver–Ammonia - Nitrate TS		USP306		
Silver Nitrate TS —Use 0.1 N Silver Nitrate (see in the section Volumetric Solutions)		USP125		
Simulated Intestinal Fluid TS ≡ Intestinal Fluid, Simulated, TS		USP230		
Sodium Acetate TS	24	USP310	100	ml
Sodium Alizarinsulfonate TS	6	USP311	100	ml
Sodium Aminoacetate TS (Sodium Glycinate TS)	12	USP312	500	ml
Sodium Aminoacetate TS (Sodium Glycinate TS)	12	USP312a	1000	ml
Sodium Carbonate TS	24	USP313	100	ml
Sodium Carbonate TS	24	USP313a	1000	ml
Sodium Chloride TS, Alkaline	24	USP314	100	ml
Sodium Citrate TS	24	USP315	250	ml
Sodium Citrate TS, Alkaline	24	USP316	250	ml
Sodium Citrate TS, Alkaline	24	USP316a	100	ml
Sodium Cobaltinitrite TS	12	USP317	50	ml
Sodium Fluoride TS	12	USP318	100	ml
Sodium Hydroxide TS	24	USP319	100	ml
Sodium Hydroxide TS	24	USP319a	1000	ml
Sodium Iodohydroxyquinolinesulfonate TS	12	USP320	250	ml
Sodium Iodohydroxyquinolinesulfonate TS	12	USP320a	100	ml
Dibasic Sodium Phosphate TS	12	USP321	100	ml
Sodium Phosphotungstate TS	12	USP322	100	ml
Sodium Tartrate TS	24	USP323	100	ml
Sodium Tartrate TS	24	USP323a	500	ml
Sodium Tetraphenylboron TS	24	USP324	100	ml
Sodium Thiosulfate TS - Use 0.1 N Sodium Thiosulfate		USP132		
Stannous Chloride, Acid, TS	3	USP328	100	ml
Stannous Chloride, Acid, Stronger, TS	3	USP329	100	ml
Starch Iodide Paste TS	6	USP330	100	ml
Starch TS	6	USP331	100	ml
Stronger Cupric Acetate TS ≡ Cupric Acetate TS, Stronger		USP198		
Sudan III TS	12	USP333	50	ml
Sudan IV TS	12	USP334	100	ml
Sudan IV TS	12	USP334a	50	ml
Sulfanilic Acid TS	12	USP335	100	ml
Sulfanilic Acid TS	12	USP335a	500	ml
Sulfanilic - Naphthylamine TS ≡ Sulfanilic-1-Naphthylamine TS		USP337		
Sulfanilic-1-Naphthylamine TS	12	USP337	100	ml
Sulfomolybdic Acid TS	18	USP338	100	ml
Sulfomolybdic Acid TS	18	USP338a	500	ml
Sulfuric Acid TS	6	USP339	100	ml
Tetramethylammonium Hydroxide TS	12	USP340	100	ml
Thioacetamide TS	6	USP341	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Thorium Nitrate TS	12	USP342	100	ml
Thymol Blue TS	24	USP343	100	ml
Thymolphthalein TS	24	USP344	100	ml
Titanium Trichloride TS	12	USP345	100	ml
Titanium Trichloride - Sulfuric Acid TS	12	USP346	100	ml
p-Toluenesulfonic Acid TS	12	USP347	100	ml
Trinitrophenol TS (Picric Acid TS)	24	USP348	100	ml
Triphenyltetrazolium Chloride TS	12	USP349	100	ml
Triphenyltetrazolium Chloride TS	12	USP349a	500	ml
Zinc Uranyl Acetate TS	12	USP357	100	ml

Indicators and Test Papers

Indicator and test papers are strips of paper of suitable dimension and grade impregnated with an indicator or a reagent that is sufficiently stable to provide a convenient form of the impregnated substance.

DESCRIPTION	VALIDITY *months*	REF	VOLUME
Cupric Sulfate Test Paper	12	USP068	pack of 50
Lead Acetate Test Paper	12	USP069	pack of 50
Mercuric Bromide Test Paper	12	USP070	pack of 50
Methyl Yellow Paper	12	USP071	pack of 50
Phenolphthalein Paper	12	USP072	pack of 50
Starch Iodate Paper	12	USP073	pack of 50
Starch Iodide Paper	12	USP074	pack of 50
Thiazole Yellow Paper	12	USP075	pack of 50

General Tests for Reagents

The following solutions are provided to help for the examination of reagents to determine their compliance with the specifications of the individual reagents.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Standard Arsenic Solution	12	USP076	100	ml
Standard Chloride Solution	12	USP077	100	ml
Standard Calcium Solution	12	USP078	100	ml
Standard Potassium Solution	6	USP079	100	ml
Standard Sodium Solution	6	USP080	100	ml
Standard Strontium Solution	6	USP081	100	ml
Lead Nitrate Stock Solution	12	USP082	100	ml
Standard Nitrate Solution	6	USP083	100	ml
Brucine Sulfate Solution	12	USP084	100	ml
Standard Phosphate Solution	6	USP085	100	ml
Phosphate Reagent A	12	USP086	100	ml
Standard Sulfate Solution	12	USP087	100	ml

British Pharmacopoeia Products

Appendix I A. General Reagents

The specifications given for reagents do not necessarily guarantee their quality for use in medicines.

Some of the reagents included may be injurious to health unless adequate precautions are taken. They should be handled in accordance with good laboratory practice and any relevant regulations such as those issued in the United Kingdom in accordance with the Health and Safety at Work *etc.* Act (1974).

Reagents in aqueous solution are prepared using *water R*. Reagent solutions used in the limit tests for barium, calcium and sulphates are prepared using *distilled water R*. Where the name of the solvent is not stated, an aqueous solution is intended.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid	24	BP001	100	ml
Acetic Acid	24	BP001a	1000	ml
Acetic Acid, Dilute	24	BP002	1000	ml
Acetic Acid, Dilute	24	BP002a	100	ml
Acetic Anhydride Solution R1	12	BP003	100	ml
Acetic Anhydride Solution R1		BP003a	1000	ml
Acetylacetone Reagent R1	12	BP004	100	ml
Alcohol, Aldehyde-free	12	BP005	1000	ml
Alizarin S Solution	12	BP006	100	ml
Aluminium Chloride Reagent	12	BP007	1000	ml
Aluminium Chloride Solution	12	BP008	100	ml
Amaranth Solution	12	BP009	100	ml
Amido Black 10B Solution	12	BP010	100	ml
4-Aminobenzoic Acid Solution - Solution A	12	BP011	100	ml
Aminohippuric Acid Reagent	12	BP012	100	ml
Aminomethylalizarindiacetic Acid Reagent (Sol A+B+C)	3	BP013	50+50+100	ml
Aminomethylalizarindiacetic Acid Solution	3	BP014	1000	ml
Aminophenazone Solution	12	BP015	100	ml
Ammonia R1, Dilute	12	BP016	1000	ml
Ammonia R2, Dilute	12	BP017	1000	ml
Ammonia R3, Dilute	12	BP018	1000	ml
Ammonium Carbonate Solution	12	BP019	1000	ml
Ammonium Carbonate Solution, Dilute	12	BP020	100	ml
Ammonium Chloride Solution	12	BP021	1000	ml
Ammonium Citrate Solution	12	BP022	1000	ml
Ammonium Iron(III) Sulphate Solution R1	12	BP023	100	ml
Ammonium Iron(III) Sulphate Solution R2	12	BP024	1000	ml
Ammonium Iron(III) Sulphate Solution R5	12	BP025	100	ml
Ammonium Iron(III) Sulphate Solution R6	12	BP026	100	ml
Ammonium Mercaptoacetate Solution	12	BP027	500	ml
Ammonium Mercurithiocyanate Reagent	12	BP028	1000	ml
Ammonium Metavanadate Solution	12	BP029	100	ml
Ammonium Molybdate Solution	12	BP030	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium Molybdate Solution R2	12	BP031	50	ml
Ammonium molybdate solution R3 (I+II)	12	BP032	200+800	ml
Ammonium Molybdate Solution R6	12	BP033	100	ml
Ammonium Molybdate-Sulphuric Acid Solution	12	BP034	100	ml
Ammonium Oxalate Solution	12	BP035	1000	ml
Ammonium Thiocyanate Solution	24	BP036	1000	ml
Ammonium Vanadate Solution	12	BP037	100	ml
Anisaldehyde Solution	12	BP038	100	ml
Anisaldehyde Solution R1	12	BP039	100	ml
Antimony Trichloride in Dichloroethane Solution	6	BP040	100	ml
Antimony Trichloride Solution	12	BP041	100	ml
Antimony Trichloride Solution R1 (Solution A)	6	BP042	100	ml
Arsenite Solution	12	BP043	100	ml
Ascorbic Acid Solution	12	BP044	100	ml
Azomethine H Solution	12	BP045	100	ml
Barium Chloride Solution	12	BP046	1000	ml
Barium Chloride Solution R1	12	BP047	1000	ml
Barium Chloride Solution R2	12	BP048	1000	ml
Barium Hydroxide Solution	24	BP049	1000	ml
Bismuth Oxynitrate Solution	24	BP050	500	ml
Bismuth subnitrate solution ≡ Bismuth Oxynitrate Solution		BP050		
Biuret Reagent	12	BP051	1000	ml
Blocking Solution	24	BP052	1000	ml
Borate Solution	24	BP053	1000	ml
Boric Acid Solution	12	BP054	100	ml
Boric Acid Solution, Cold Saturated	6	BP055	100	ml
0.05M Bromine	12	BP056	1000	ml
Bromine Solution	12	BP057	100	ml
Bromine Solution, Acetic	6	BP058	1000	ml
Bromine Water	3	BP059	100	ml
Bromocresol Green Solution	24	BP060	100	ml
Bromocresol Green-Methyl Red Solution	12	BP061	100	ml
Bromocresol Purple Solution	24	BP062	100	ml
Bromophenol Blue Solution	24	BP063	100	ml
Bromophenol Blue Solution R1	24	BP064	100	ml
Bromophenol Blue Solution R2	24	BP065	100	ml
Bromothymol Blue Solution R1	24	BP066	100	ml
Bromothymol Blue Solution R2	24	BP067	100	ml
Bromothymol Blue Solution R3	24	BP068	100	ml
BRP Indicator Solution	12	BP069	100	ml
Cadmium Iodide Solution	6	BP070	100	ml
Calcium Chloride Solution	24	BP071	1000	ml
Calcium Chloride Solution, 0.01M	24	BP072	100	ml
Calcium Sulphate Solution	12	BP073	100	ml
Calconcarboxylic acid triturate	12	BP074	50	ml
Cerium(III) Nitrate Solution	12	BP075	1000	ml
Chloral Hydrate Solution	12	BP076	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
2-Chloroethanol Solution	12	BP077	50	ml
Chloroform, Acidified	12	BP078	100	ml
Chloroform Water	12	BP079	1000	ml
Chromotrope IIB Solution	12	BP080	100	ml
Chromotropic Acid - Sulphuric Acid Solution	6	BP081	100	ml
Citric-Molybdic Acid Solution	6	BP082	100	ml
Congo Red Paper	12	BP083	pack of 50	
Congo Red Solution	24	BP084	100	ml
Coomassie Staining Solution	12	BP085	100	ml
Copper Chloride-Pyridine Reagent	6	BP086	100	ml
Copper Edetate Solution	12	BP087	1000	ml
Copper Oxide Solution, Ammoniacal	12	BP088	100	ml
Copper Sulphate Solution	24	BP089	1000	ml
Copper Sulphate Solution, Weak	12	BP090	1000	ml
Copper Tetrammine, Ammoniacal Solution of	12	BP091	100	ml
m-Cresol Purple Solution	12	BP092	100	ml
Cresol Red Solution	24	BP093	100	ml
Crystal Violet Solution	12	BP094	100	ml
Cupriethylenediamine Hydroxide Solution	12	BP095	1000	ml
Cupri-citric Solution	12	BP096	1000	ml
Cupri-citric solution R1	12	BP097	1000	ml
Cupri-tartaric solution (I+II)	12	BP098	500+500	ml
Cupri-tartaric Solution R1 (A+B)	12	BP099	500+500	ml
Cupri-tartaric solution R4 (I+II)	12	BP100	500+500	ml
Destaining Solution	24	BP101	1000	ml
Developer Solution	12	BP102	500	ml
Dichloroacetic Acid Solution	12	BP103	500	ml
Dichloromethane, Acidified	12	BP104	100	ml
Dichloromethane Reagent	12	BP105	1000	ml
Digoxin Reagent	12	BP106	100	ml
Dimethyl Yellow and Oracet Blue Solution	12	BP107	100	ml
Dimethyl Yellow Solution	12	BP108	100	ml
Dimethylaminobenzaldehyde Reagent	3	BP109	100	ml
Dimethylaminobenzaldehyde Solution R6	3	BP110	100	ml
Dimidium Bromide-Sulphan Blue Mixed Solution	12	BP111	500	ml
Dinitrobenzene Solution	12	BP112	1000	ml
Dinitrobenzoic Acid Solution	12	BP113	1000	ml
Dioxan Solution	12	BP114	100	ml
Dioxan Solution R1	12	BP115	50	ml
Dioxan Stock Solution	12	BP116	100	ml
Diphenylamine Solution	12	BP117	1000	ml
Diphenylamine Solution R1	12	BP118	1000	ml
Diphenylcarbazone mercuric reagent (I+II)	12	BP119	100+100	ml
Disodium Hydrogen Phosphate Solution	12	BP120	1000	ml
Dithizone Solution R2	12	BP121	100	ml
Divanadium Pentoxide Solution in Sulphuric Acid	24	BP122	100	ml
Ethyl acetate, treated	3	BP123	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ethylene Oxide Solution R5	12	BP124	10	ml
Ethylene Oxide Stock Solution	12	BP125	10	ml
Ethylene Oxide Stock Solution R1	12	BP126	10	ml
Ferric ammonium sulphate solution R1 ≡ Ammonium Iron(III) Sulphate Solution R1		BP023		
Ferric ammonium sulphate solution R2 ≡ Ammonium Iron(III) Sulphate Solution R1		BP024		
Ferric ammonium sulphate solution R5 ≡ Ammonium Iron(III) Sulphate Solution R5		BP025		
Ferric ammonium sulphate solution R6 ≡ Ammonium Iron(III) Sulphate Solution R6		BP026		
Ferric Chloride Solution R1 ≡ Iron(III) chloride solution R1		BP165		
Ferric Chloride Solution R2 ≡ Iron(III) chloride solution R2		BP166		
Ferric Chloride Solution R3	12	BP127	100	ml
Ferric Chloride-Sulphamic Acid Reagent ≡ Iron(III) chloride - sulphamic acid reagent		BP167		
Ferroin ≡ Ferroin solution		BP128		
Ferroin Solution	24	BP128	100	ml
Fixing Solution	6	BP129	500	ml
Fixing Solution for Isoelectric Focusing in Polyacrylamide Gel	6	BP130	500	ml
Fluorenone Solution	6	BP131	500	ml
Formamide, treated	6	BP132	100	ml
Fuchsin Solution, Basic	12	BP133	100	ml
Fuchsin Solution, Decolorised	12	BP134	100	ml
Fuchsin Solution R1, Decolorised	12	BP135	100	ml
Holmium perchlorate solution	12	BP136	3 x10	ml
Hydrochloric Acid, Brominated	12	BP137	100	ml
Hydrochloric Acid, Dilute	24	BP138	1000	ml
Hydrochloric Acid, Ethanolic (no molarity is stated)	24	BP139	1000	ml
Hydrochloric Acid, Ethanolic (Specify Molarity)		BP140		
Hydrochloric Acid, Methanolic (Specify Molarity)		BP141		
Hydrochloric Acid R1	24	BP142	1000	ml
Hydrochloric Acid R1, Dilute	24	BP143	1000	ml
Hydrochloric Acid R2, Dilute	24	BP144	1000	ml
Hydrochloric Acid, Stannated	24	BP145	100	ml
Hydroquinone Solution	6	BP146	100	ml
Hydroxylamine Hydrochloride Solution R2	12	BP147	100	ml
Hydroxylamine Solution, Alcoholic	12	BP148	100	ml
Hydroxylamine solution, alkaline (I+II)	12	BP149	500+500	ml
Hydroxylamine solution, alkaline R1 (I+II)	12	BP150	100+100	ml
Hypophosphorous reagent	6	BP151	100	ml
Imidazole, Recrystallised	12	BP152	25	g
Imidazole Solution	12	BP153	100	ml
Imidazole–Mercury Reagent	12	BP154	100	ml
Indigo Carmine Solution	12	BP155	100	ml
Indigo Carmine Solution R1	12	BP156	1000	ml
Iodine Bromide Solution	12	BP157	1000	ml
Iodine Chloride Solution	12	BP158	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Iodine Monochloride Reagent, Strong	6	BP159	100	ml
Iodine Solution, Alcoholic	12	BP160	1000	ml
Iodine Solution, Chloroformic	12	BP161	1000	ml
IodineSolution R4	12	BP162	1000	ml
Iodoplatinate Reagent	12	BP163	200	ml
Iron(III) Chloride Solution, Ethanolic	12	BP164	100	ml
Iron(III) Chloride Solution R1	12	BP165	1000	ml
Iron(III) Chloride Solution R2	12	BP166	1000	ml
Iron(III) Chloride-Sulphamic Acid Reagent	12	BP167	1000	ml
Iron(III) Nitrate Solution	24	BP168	100	ml
Isatin Reagent	6	BP169	100	ml
Isoniazid Solution	12	BP170	200	ml
Lanthanum Chloride Solution	24	BP171	1000	ml
Lanthanum Nitrate Solution	24	BP172	1000	ml
Lead Acetate Cotton	12	BP173	10	g
Lead Acetate Paper	12	BP174	pack of 50	
Lead Acetate Solution	6	BP175	1000	ml
Lead Nitrate Solution	12	BP176	1000	ml
Lead Subacetate Solution	12	BP177	100	ml
Lithium and Sodium Molybdotungstophosphate Solution ≡ Phosphomolybdotugstic reagent		BP242		
Litmus Paper, Blue	12	BP178	pack of 50	
Litmus Paper, Red	12	BP179	pack of 50	
Litmus Solution	12	BP180	250	ml
Magnesium Nitrate Solution	12	BP181	100	ml
Magnesium Nitrate Solution R1 (10 times concentrated)	12	BP182	100	ml
Magneson Reagent	12	BP183	100	ml
Magneson Solution	12	BP184	100	ml
Malachite Green Solution	6	BP185	100	ml
Mercuric Acetate Solution ≡ Mercury(II) acetate solution		BP186		
Mercuric Bromide Paper ≡ Mercury(II) bromide paper.		BP187		
Mercuric Chloride Solution ≡ Mercury(II) chloride solution		BP188		
Mercuric Sulphate Solution ≡ Mercury(II) sulphate solution.		BP189		
Mercury(II) Acetate Solution	6	BP186	100	ml
Mercury(II) Bromide Paper	12	BP187	pack of 50	
Mercury(II) Chloride Solution	12	BP188	100	ml
Mercury(II) Sulphate Solution	12	BP189	100	ml
Mercury, nitric acid solution of	6	BP190	100	ml
Metanil Yellow Solution	12	BP191	100	ml
Methanesulphonic Acid, Methanolic (Specify Molarity)		BP192		
Methanol, Acidified	12	BP193	1000	ml
Methanol, Aldehyde-free	24	BP194	1000	ml
Methanol, Anhydrous	24	BP195	1000	ml
Methanol, Hydrochloric	24	BP196	100	ml
Methoxyphenylacetic Acid Reagent	12	BP197	30	ml
Methyl 4-acetylbenzoate reagent	6	BP198	100	ml
Methyl Orange Mixed Solution	12	BP199	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Methyl Orange Solution	24	BP200	100	ml
Methyl Orange-Xylene Cyanol FF Solution	12	BP201	100	ml
Methyl Red Mixed Solution	12	BP202	100	ml
Methyl Red Solution	24	BP203	100	ml
Methyl Thymol Blue Mixture	12	BP204	50	ml
Molybdovanadic Reagent	12	BP205	100	ml
Mordant Black 11 Mixed Triturate	12	BP206	100	g
Mordant Black 11 Solution	6	BP207	100	ml
Mordant Black 11 Triturate	24	BP208	100	g
Naphthalene Black Solution	12	BP209	100	ml
Naphthalenediol Reagent Solution	12	BP210	200	ml
1-Naphthol Solution, Strong	12	BP211	100	ml
Naphtholbenzein Solution ≡ 1-Naphtholbenzein solution		BP212		
1-Naphtholbenzein Solution	24	BP212	100	ml
Neutral Red Solution	12	BP213	100	ml
Nickel Chloride Solution, Ammoniacal	12	BP214	100	ml
Nile Blue A Solution	12	BP215	100	ml
Ninhydrin and stannous chloride reagent R1 (A +B)	3	BP216	100+100	ml
Ninhydrin Reagent I	3	BP217	1000	ml
Ninhydrin Solution	12	BP218	100	ml
Ninhydrin Solution R1	12	BP219	100	ml
Ninhydrin Solution R2	12	BP220	100	ml
Sodium metabisulphite 45.5 g/l solution	12	BP221	100	ml
Ninhydrin Solution R3	12	BP222	100	ml
Nitric Acid, Lead-free, Dilute	24	BP223	100	ml
Nitric Acid, Dilute	24	BP224	100	ml
Nitrochromic Reagent	24	BP225	100	ml
Nitro-molybdovanadic Reagent ≡ Nitro-vanado-molybdic reagent		BP226		
Nitro-vanado-molybdic Reagent	12	BP226	500	ml
Oxalic Acid and Sulphuric Acid Solution	12	BP227	1000	ml
Palladium Chloride Solution (to be diluted)	24	BP228	100	ml
Pararosaniline Solution, Decolorised	6	BP229	100	ml
Perchloric Acid Solution	24	BP230	100	ml
Periodic Acetic Acid Solution	12	BP231	100	ml
Phenol Red Solution	24	BP232	100	ml
Phenol Red Solution R1	12	BP233	500	ml
Phenol Red Solution R1	12	BP233a	100	ml
Phenol Red Solution R2	24	BP234	500	ml
Phenol Red Solution R2	24	BP234a	100	ml
Phenol Red Solution R3	24	BP235	500	ml
Phenol Red Solution R3	24	BP235a	100	ml
Phenoldisulphonic Acid Solution	12	BP236	30	ml
Phenolphthalein Solution	24	BP237	100	ml
Phenolphthalein Solution R1	24	BP238	100	ml
Phenolphthalein-Thymol Blue Solution	12	BP239	100	ml
Phenylhydrazine Hydrochloride Solution	6	BP240	100	ml
Phloroglucinol Solution	12	BP241	30	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phosphomolybdotungstic Reagent	12	BP242	100	ml
Phosphomolybdotungstic Reagent, Dilute	12	BP243	100	ml
Phosphoric Acid, Dilute	12	BP244	1000	ml
Phosphoric Acid, Dilute R1	12	BP245	1000	ml
Phosphotungstic Acid Solution	12	BP246	100	ml
Picric Acid Solution	6	BP247	100	ml
Picric Acid Solution R1	6	BP248	100	ml
Piperazine Dipicrate Solution	6	BP249	100	ml
Potassium Antimonate (V) Solution	12	BP250	100	ml
Potassium Chloride, 0.1M	24	BP251	1000	ml
Potassium Chromate Solution	24	BP252	1000	ml
Potassium Dichromate Solution	12	BP253	1000	ml
Potassium Dichromate Solution, Dilute	12	BP254	1000	ml
Potassium Dichromate Solution R1	12	BP255	1000	ml
Potassium Dihydrogen Phosphate, 0.2M	12	BP256	1000	ml
Potassium Ferrocyanide Solution ≡ Potassium hexacyanoferrate(II) solution		BP257		
Potassium Hexacyanoferrate(II) Solution	12	BP257	100	ml
Potassium Hydrogen Phthalate, 0.2M	6	BP258	1000	ml
Potassium Hydroxide, 2M Alcoholic	12	BP259	100	ml
Potassium Hydroxide, Ethanolic (Specify Molarity)		BP260		
Potassium Hydroxide in Alcohol (10% v/v), 0.5M	12	BP261	1000	ml
Potassium Hydroxide, Methanolic (Specify Molarity)		BP262		
Potassium Hydroxide Solution, Alcoholic	12	BP263	100	ml
Potassium Hydroxide Solution R1, Alcoholic	12	BP264	1000	ml
Potassium Iodide and Starch Solution	12	BP265	100	ml
Potassium Iodide Solution	12	BP266	1000	ml
Potassium Iodide Solution, Dilute	12	BP267	1000	ml
Potassium Iodide Solution, Iodinated	12	BP268	100	ml
Potassium Iodide Solution, Iodinated R1	12	BP269	100	ml
Potassium Iodide Solution, Saturated	12	BP270	100	ml
Potassium Iodobismuthate Solution	6	BP271	100	ml
Potassium Iodobismuthate Solution, Dilute	6	BP272	500	ml
Potassium Iodobismuthate Solution R1	6	BP273	500	ml
Potassium iodobismuthate solution R2 (Stock solution)	6	BP274	100	ml
Potassium Iodobismuthate Solution R3	6	BP275	100	ml
Potassium iodobismuthate solution R4	6	BP276	100	ml
Potassium Iodobismuthate Solution R5	6	BP277	100	ml
Potassium Mercuri-iodide Solution, Alkaline	6	BP278	100	ml
Potassium Permanganate and Phosphoric Acid Solution	12	BP279	100	ml
Potassium Permanganate Solution	24	BP280	1000	ml
Potassium Permanganate Solution, Dilute	24	BP281	1000	ml
Potassium Plumbite Solution	6	BP282	100	ml
Potassium Pyroantimonate Solution ≡ Potassium antimonate(V) solution.		BP250		
Potassium Tetraiodomercurate Solution	12	BP283	100	ml
Potassium tetraiodomercurate solution, alkaline (I+II)	24	BP284	100+100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium Thiocyanate Solution	24	BP285	1000	ml
Pyridylazonaphthol Solution	12	BP286	100	ml
Quinaldine Red Solution	24	BP287	100	ml
Quinoline Solution	12	BP288	100	ml
Reducing Mixture	12	BP289	55	g
Ruthenium Red Solution	12	BP290	100	ml
Salicylaldehyde azine. C14H12N2O2. (Mr 240.3)	12	BP291	100	ml
SDS-PAGE Running Buffer (10 times concentrated)	12	BP292	1000	ml
SDS-PAGE Sample Buffer Solution for Reducing Conditions (Concentrated)	12	BP293	500	ml
SDS-PAGE Sample Buffer (Concentrated)	12	BP294	125	ml
Semicarbazide Acetate Solution	12	BP295	100	ml
Silver Manganese Paper	12	BP296	pack of 50	
Silver Nitrate Reagent	24	BP297	100	ml
Silver Nitrate Solution in Pyridine	12	BP298	100	ml
Silver Nitrate Solution R1	24	BP299	1000	ml
Silver Nitrate Solution R2	24	BP300	1000	ml
Sodium Carbonate Solution	24	BP301	1000	ml
Sodium Carbonate Solution, Dilute	24	BP302	1000	ml
Sodium Carbonate Solution R1	24	BP303	1000	ml
Sodium Carbonate Solution R2	24	BP304	1000	ml
Sodium Chloride Solution	24	BP305	1000	ml
Sodium Hydrogen Carbonate Solution	24	BP306	1000	ml
Sodium Hydroxide, Ethanolic (Specify Molarity)		BP307		
Sodium Hydroxide, Methanolic (Specify Molarity)		BP308		
Sodium Hydroxide Solution	24	BP309	1000	ml
Sodium Hydroxide Solution, Carbonate-free	24	BP310	1000	ml
Sodium Hydroxide Solution, Dilute	24	BP311	1000	ml
Sodium Hydroxide Solution, Methanolic	24	BP312	100	ml
Sodium Hydroxide Solution R1, Methanolic	24	BP313	100	ml
Sodium Hydroxide Solution, Strong	12	BP314	1000	ml
Sodium Iodobismuthate Solution (Solution A)	12	BP315	100	ml
Sodium Molybdotungstophosphate Solution	12	BP316	500	ml
Sodium Nitroprusside-Carbonate Solution	6	BP317	100	ml
Sodium Sulphide Solution	6	BP318	100	ml
Sodium Sulphide Solution R1	6	BP319	100	ml
Stannous Chloride Solution ≡ Tin(II) chloride solution		BP338		
Starch Iodate Paper	12	BP320	pack of 50	
Starch Iodide Paper	12	BP321	pack of 50	
Starch Iodide Solution	6	BP322	100	ml
Starch Solution	12	BP323	100	ml
Sudan Red Solution	12	BP324	100	ml
Sudan Yellow Solution	12	BP325	100	ml
Sulphanilic Acid Solution	3	BP326	100	ml
Sulphanilic Acid Solution R1	3	BP327	100	ml
Sulphomolybdic Reagent R2	12	BP328	100	ml
Sulphomolybdic Reagent R3	12	BP329	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sulphuric Acid, Dilute	24	BP330	1000	ml
Sulphuric Acid, Ethanolic (Specify Molarity)		BP331		
Sulphuric Acid–Formaldehyde Reagent	6	BP332	100	ml
Sulphuric Acid, Methanolic (Specify Molarity)		BP333		
Tetramethyldiaminodiphenylmethane reagent	6	BP334	100	ml
Thioacetamide Solution	12	BP335	1000	ml
Thymol Blue Solution	24	BP336	100	ml
Thymolphthalein Solution	24	BP337	100	ml
Tin(II) Chloride Solution	12	BP338	100	ml
Tin(II) Chloride Solution ?AsT	12	BP339	100	ml
Titan Yellow Paper	12	BP340	pack of 50	
Titan Yellow Solution	12	BP341	100	ml
Titanium(III) Chloride–Sulphuric Acid Reagent	6	BP342	100	ml
Titanium Trichloride–Sulphuric Acid Reagent ≡ Titanium(III) chloride–sulphuric acid reagent		BP342		
TLC Performance Test Solution	6	BP343	10	ml
o-Tolidine Solution	6	BP344	500	ml
Trichloroacetic Acid Solution	12	BP345	1000	ml
Triphenyltetrazolium Chloride Solution	12	BP346	100	ml
Tris(hydroxymethyl)methylamine Solution	4	BP347	100	ml
Tris(hydroxymethyl)methylamine Solution, Methanolic	4	BP348	1000	ml
Vanillin Solution, Phosphoric	12	BP349	100	ml
Water	12	BP350	5000	ml
Water, Ammonia-free	12	BP351	1000	ml
Water, Ammonium-free ≡ Water, ammonia-free		BP351		
Water, Carbon Dioxide-free	12	BP352	1000	ml
Water for Chromatography	12	BP353	1000	ml
Water, Nitrate-free	12	BP354	1000	ml
Water, Particle-free	12	BP355	1000	ml
Xanthydrol Reagent (without HCl)	12	BP356	100	ml
Xanthydrol Solution	12	BP357	100	ml
Xylenol Orange Solution	6	BP358	100	ml
Xylenol Orange Triturate	12	BP359	50	ml
Zinc Acetate Solution	12	BP360	1000	ml
Zinc, Activated	12	BP361	10	g
Zinc Chloride–Formic Acid Solution	24	BP362	1000	ml
Zinc Chloride Solution, Iodinated	12	BP363	1000	ml
Zinc Iodide and Starch Solution	12	BP364	100	ml
Zirconyl Nitrate Solution	24	BP365	100	ml

Appendix I B.
Volumetric reagents and solutions

Primary standards

The following materials, after drying under the specified conditions, are recommended for use as primary standards in the standardisation of volumetric solutions.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Benzoic Acid	36	BP644	100	g
Potassium Bromate	36	BP645	50	g
Potassium Dichromate	36	BP646	100	g
Potassium Hydrogen Phthalate	36	BP647	50	g
Potassium Iodate	36	BP648	50	g
Sodium Carbonate, Anhydrous	36	BP649	50	g
Sodium Chloride	36	BP650	250	g
Sulphanilic Acid	36	BP651	100	g
Zinc	36	BP652	100	g

Volumetric solutions

Volumetric solutions are prepared according to the usual chemical analytical methods. The accuracy of the apparatus used is verified to ensure that it is appropriate for the intended use.

The concentration of volumetric solutions is indicated in terms of *molarity* (M). The molarity of a solution is the number of moles of substance contained in 1000 ml of the solution. A solution that contains *x* moles of substance per litre is said to be *x*M.

The molarity of the volumetric solutions is determined by an appropriate number of titrations. The repeatability does not exceed 0.2% (relative standard deviation).

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid 0.1M	24	BP653	1000	ml
Ammonium and cerium nitrate 0.1 M	24	BP654	1000	ml
Ammonium and cerium nitrate 0.01 M	12	BP655	1000	ml
Ammonium and cerium sulphate 0.1M	12	BP656	1000	ml
Ammonium and cerium sulphate 0.01M	12	BP657	1000	ml
Ammonium Iron(II) Sulphate	12	BP658	1000	ml
Ammonium Iron(III) Sulphate	12	BP659	1000	ml
Ammonium thiocyanate 0.1M	24	BP660	1000	ml
Barium chloride 0.1M	12	BP661	1000	ml
Barium perchlorate 0.05M	12	BP662	1000	ml
Barium perchlorate 0.025M	12	BP663	1000	ml
Benzethonium chloride 0.004 M	24	BP664	1000	ml
Bromine 0.05M	12	BP665	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Cerium (IV) sulphate 0.1 M	24	BP666	1000	ml
Copper sulphate 0.02M	12	BP667	1000	ml
Disodium edetate 0.05M	24	BP668	1000	ml
Disodium edetate 0.02M	24	BP669	1000	ml
Disodium edetate 0.01M	24	BP670	1000	ml
Hydrochloric acid 6M	24	BP671	1000	ml
Hydrochloric acid 3M	24	BP672	1000	ml
Hydrochloric acid 2M	24	BP673	1000	ml
Hydrochloric acid 1M	24	BP674	1000	ml
Hydrochloric acid 0.1M	24	BP675	1000	ml
Iodine 0.5M	12	BP676	1000	ml
Iodine 0.05M	12	BP677	1000	ml
Iodine 0.01M	12	BP678	1000	ml
Iron(II) Sulphate 0.1M	12	BP679	1000	ml
Lead nitrate 0.05M	24	BP680	1000	ml
Lead nitrate 0.1M	24	BP681	1000	ml
Magnesium chloride 0.1M	24	BP682	1000	ml
Magnesium Sulphate 0.05M	24	BP683	1000	ml
Nitric acid 1M	24	BP684	1000	ml
Perchloric acid 0.1M	12	BP685	1000	ml
Perchloric acid 0.05M	12	BP686	1000	ml
Potassium bromate 0.033M	12	BP687	1000	ml
Potassium bromate 0.02M	12	BP688	1000	ml
Potassium bromate 0.0167M	12	BP689	1000	ml
Potassium bromate 0.0083M	12	BP690	1000	ml
Potassium dichromate 0.0167M	24	BP691	1000	ml
Potassium Hydroxide 0.1M	24	BP692	1000	ml
Potassium Hydroxide 1M	24	BP693	1000	ml
Potassium Hydroxide alcoholic 0.5M	12	BP694	1000	ml
Potassium Hydroxide alcoholic 0.1M	12	BP695	1000	ml
Potassium Hydroxide alcoholic 0.01M	12	BP696	1000	ml
Potassium Hydroxide in alcohol (60% v/v) 0.5M	12	BP697	1000	ml
Potassium Hydroxide in alcohol (90% v/v) 1M	12	BP698	1000	ml
Potassium iodate 0.05M	12	BP699	1000	ml
Potassium iodide 0.001M	12	BP700	1000	ml
Potassium permanganate 0.02M	24	BP701	1000	ml
Silver nitrate 0.1M	24	BP702	1000	ml
Silver nitrate 0.001M	24	BP703	1000	ml
Sodium arsenite 0.1M	12	BP704	500	ml
Sodium hydroxide 1M	24	BP705	1000	ml
Sodium hydroxide 0.1M	24	BP706	1000	ml
Sodium hydroxide, ethanolic 0.1M	12	BP707	1000	ml
Sodium methoxide 0.1M	12	BP708	1000	ml
Sodium nitrite 0.1M	6	BP709	1000	ml
Sodium thiosulphate 0.1M	24	BP710	1000	ml
Sulphuric acid 0.5M	24	BP711	1000	ml
Sulphuric acid 0.05M	24	BP712	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Tetrabutylammonium hydroxide 0.1M	12	BP713	1000	ml
Tetrabutylammonium hydroxide in 2-propanol, 0.1M	12	BP714	1000	ml
Tetrabutylammonium Iodide 0.01M	12	BP715	1000	ml
Zinc chloride 0.05M	24	BP716	1000	ml
Zinc sulphate 0.1M	24	BP717	1000	ml

Appendix I C. Standard solutions

The following solutions are used as reference standards in limit tests.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetaldehyde Standard Solution (100 ppm C2H4O)	6	BP366	500	ml
Acetaldehyde Standard Solution (100 ppm C2H4O) R1	6	BP367	500	ml
Aluminium Standard Solution (200 ppm Al)	12	BP368	100	ml
Aluminium Standard Solution (100 ppm Al)	12	BP369	100	ml
Aluminium Standard Solution (10 ppm Al)	12	BP370	100	ml
Aluminium Standard Solution (2 ppm Al)	6	BP371	100	ml
Ammonium Standard Solution (100 ppm NH4)	12	BP372	100	ml
Ammonium Standard Solution (2.5 ppm NH4)	6	BP373	100	ml
Ammonium Standard Solution (1 ppm NH4)	6	BP374	100	ml
Antimony Standard Solution (1 ppm Sb)	6	BP375	100	ml
Antimony Standard Solution (100 ppm Sb)	12	BP376	100	ml
Antimony Standard Solution (100 ppm Sb)	12	BP376a	1000	ml
Arsenic Standard Solution (10 ppm As)	12	BP377	100	ml
Arsenic Standard Solution (1 ppm As)	6	BP378	100	ml
Arsenic Standard Solution (0.1 ppm As)	6	BP379	100	ml
Barium Standard Solution (0.1% Ba)	24	BP380	100	ml
Barium Standard Solution (50 ppm Ba)	12	BP381	100	ml
Bismuth Standard Solution (100 ppm Bi)	12	BP382	100	ml
Cadmium Standard Solution (0.1% Cd)	24	BP383	100	ml
Cadmium Standard Solution (10 ppm Cd)	12	BP384	100	ml
Calcium Standard Solution (400 ppm Ca)	12	BP385	100	ml
Calcium Standard Solution (100 ppm Ca)	12	BP386	100	ml
Calcium Standard Solution (100 ppm Ca), Alcoholic	12	BP387	100	ml
Calcium Standard Solution (100 ppm Ca), Alcoholic	12	BP387a	1000	ml
Calcium Standard Solution (100 ppm Ca) R1	12	BP388	100	ml
Calcium Standard Solution (10 ppm Ca)	12	BP389	100	ml
Chloride Standard Solution (50 ppm Cl)	12	BP390	100	ml
Chloride Standard Solution (8 ppm Cl)	6	BP391	100	ml
Chloride Standard Solution (5 ppm Cl)	6	BP392	100	ml
Chromium Standard Solution (0.1% Cr)	24	BP393	100	ml
Chromium Standard Solution (100 ppm Cr)	12	BP394	100	ml
Chromium Standard Solution (100 ppm Cr)	12	BP394a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Chromium Standard Solution (0.1 ppm Cr)	6	BP395	100	ml
Chromium Standard Solution (0.1 ppm Cr)	6	BP395a	1000	ml
Cobalt Standard Solution (100 ppm Co)	12	BP396	100	ml
Cobalt Standard Solution (100 ppm Co)	12	BP396a	1000	ml
Copper Standard Solution (0.1% Cu)	24	BP397	100	ml
Copper Standard Solution (10 ppm Cu)	12	BP398	100	ml
Copper Standard Solution (0.1 ppm Cu)	6	BP399	100	ml
Ferricyanide Standard Solution (50 ppm Fe(CN)6)	12	BP400	100	ml
Ferrocyanide Standard Solution (100 ppm Fe(CN)6)	12	BP401	100	ml
Fluoride Standard Solution (10 ppm F)	12	BP402	100	ml
Formaldehyde Standard Solution (5 ppm CH2O)	6	BP404	100	ml
Germanium Standard Solution (100 ppm Ge)	12	BP405	100	ml
Glucose Standard Solution	6	BP406	100	ml
Glyoxal Standard Solution (20 ppm C2H2O2)	6	BP407	100	ml
Iodide Standard Solution (20 ppm I)	12	BP408	100	ml
Iodide Standard Solution (10 ppm I)	12	BP409	100	ml
Iron Standard Solution (0.1% Fe)	24	BP410	100	ml
Iron Standard Solution (250 ppm Fe)	12	BP411	100	ml
Iron Standard Solution (20 ppm Fe)	12	BP412	100	ml
Iron Standard Solution (10 ppm Fe)	12	BP413	100	ml
Iron Standard Solution (8 ppm Fe)	6	BP414	100	ml
Iron Standard Solution (2 ppm Fe)	6	BP415	100	ml
Iron Standard Solution (1 ppm Fe)	6	BP416	100	ml
Lead Standard Solution (0.1% Pb)	24	BP417	100	ml
Lead Standard Solution(0.1% Pb) R1	24	BP418	100	ml
Lead Standard Solution (100 ppm Pb)	12	BP419	100	ml
Lead Standard Solution (20 ppm Pb)	12	BP420	100	ml
Lead Standard Solution (10 ppm Pb)	12	BP421	100	ml
Lead Standard Solution (10 ppm Pb) R1	12	BP422	100	ml
Lead Standard Solution (10 ppm Pb) R2	12	BP423	100	ml
Lead Standard Solution (2 ppm Pb)	6	BP424	100	ml
Lead Standard Solution (1 ppm Pb)	6	BP425	100	ml
Lead Standard Solution (0.5 ppm Pb)	6	BP426	100	ml
Lead Standard Solution (0.1 ppm Pb)	6	BP427	100	ml
Lithium Standard Solution (100 ppm Li)	12	BP428	100	ml
Magnesium Standard Solution (0.1% Mg)	24	BP429	100	ml
Magnesium Standard Solution (100 ppm Mg)	12	BP430	100	ml
Magnesium Standard Solution (10 ppm Mg)	12	BP431	100	ml
Magnesium Standard Solution (10 ppm Mg) R1	12	BP432	100	ml
Manganese Standard Solution (100 ppm Mn)	12	BP433	100	ml
Mercury Standard Solution (1000 ppm Hg)	24	BP434	100	ml
Mercury Standard Solution (100 ppm Hg)	12	BP435	100	ml
Mercury Standard Solution (10 ppm Hg)	12	BP436	100	ml
Mercury Standard Solution (5 ppm Hg)	12	BP437	100	ml
Nickel Standard Solution (10 ppm Ni)	12	BP438	100	ml
Nickel Standard Solution (0.2 ppm Ni)	6	BP439	100	ml
Nickel Standard Solution (0.1 ppm Ni)	6	BP440	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Nitrate Standard Solution (100 ppm NO3)	12	BP441	100	ml
Nitrate Standard Solution (10 ppm NO3)	12	BP442	100	ml
Nitrate Standard Solution (2 ppm NO3)	6	BP443	100	ml
Nitrite Standard Solution (20 ppm NO2)	6	BP444	100	ml
Palladium Standard Solution (500 ppm Pd)	12	BP445	100	ml
Palladium Standard Solution (20 ppm Pd)	12	BP446	100	ml
Palladium Standard Solution (0.5 ppm Pd)	6	BP447	100	ml
Phosphate Standard Solution (200 ppm PO4)	12	BP448	100	ml
Phosphate Standard Solution (100 ppm PO4)	12	BP449	100	ml
Phosphate Standard Solution (5 ppm PO4)	6	BP450	100	ml
Platinum Standard Solution (30 ppm Pt)	12	BP451	100	ml
Potassium Standard Solution (0.2 % K)	24	BP452	100	ml
Potassium Standard Solution (600 ppm K)	12	BP453	100	ml
Potassium Standard Solution (100 ppm K)	12	BP454	100	ml
Potassium Standard Solution (20 ppm K)	12	BP455	100	ml
Selenium Standard Solution (100 ppm Se)	12	BP456	100	ml
Selenium Standard Solution (1 ppm Se)	6	BP457	100	ml
Silver Standard Solution (5 ppm Ag)	6	BP458	100	ml
Sodium Standard Solution (200 ppm Na)	12	BP459	100	ml
Sodium Standard Solution (50 ppm Na)	12	BP460	100	ml
Strontium Standard Solution (1.0 per cent Sr)	24	BP461	100	ml
Sulphate Standard Solution (100 ppm SO4)	12	BP462	100	ml
Sulphate Standard Solution (10 ppm SO4)	12	BP463	100	ml
Sulphate Standard Solution (10 ppm SO4) R1	12	BP464	100	ml
Sulphite Standard Solution (80 ppm SO2)	6	BP465	100	ml
Thallium Standard Solution (10 ppm Tl)	12	BP466	100	ml
Tin Standard Solution (0.1 ppm Sn)	6	BP467	100	ml
Titanium Standard Solution (100 ppm Ti)	12	BP468	100	ml
Vanadium Standard Solution (1 g/l V)	24	BP469	100	ml
Zinc Standard Solution (5 mg/ml Zn)	24	BP470	100	ml
Zinc Standard Solution (100 ppm Zn)	12	BP471	100	ml
Zinc Standard Solution (25 ppm Zn)	12	BP472	100	ml
Zinc Standard Solution (10 ppm Zn)	12	BP473	100	ml
Zinc Standard Solution (5 ppm Zn)	6	BP474	100	ml
Zirconium Standard Solution (1 g/l Zr)	6	BP475	100	ml

Appendix I D. Buffer solutions

Buffer solutions are prepared using *carbon dioxide-free water*.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetate Buffer pH 2.45	12	BP476	1000	ml
Acetate Buffer pH 2.8	12	BP477	1000	ml
Acetate Buffer pH 3.4	12	BP478	1000	ml
Acetate Buffer pH 3.5	12	BP479	1000	ml
Acetate Buffer pH 3.7	12	BP480	1000	ml
Acetate Buffer pH 4.4	12	BP481	1000	ml
Acetate Buffer pH 4.6	12	BP482	1000	ml
Acetate Buffer pH 5.0	12	BP483	1000	ml
Acetate Buffer pH 6.0	12	BP484	1000	ml
Acetate Buffer Solution pH 4.5	12	BP485	1000	ml
Acetate Buffer Solution pH 4.7	12	BP486	1000	ml
Acetate Buffer Solution pH 5.0	12	BP487	1000	ml
Acetate–Edetate Buffer Solution pH 5.5	12	BP488	1000	ml
Acetone Solution, Buffered	24	BP489	1000	ml
Ammonia Buffer pH 10.0	12	BP490	1000	ml
Ammonia Buffer pH 10.9	12	BP491	1000	ml
Ammonia Buffer pH 10.9, Dilute	12	BP492	1000	ml
Ammonium Carbonate Buffer Solution pH 10.3, 0.1M	12	BP493	1000	ml
Ammonium Chloride Buffer Solution pH 9.5	12	BP494	1000	ml
Ammonium Chloride Buffer Solution pH 10.4	12	BP495	1000	ml
Borate Buffer pH 7.5	12	BP496	1000	ml
Borate Buffer pH 8.0	12	BP497	1000	ml
Borate Buffer pH 9.0	12	BP498	1000	ml
Borate Buffer pH 9.6	12	BP499	1000	ml
Borate Buffer Solution pH 8.0, 0.0015M	12	BP500	1000	ml
Borate Buffer Solution pH 10.4	12	BP501	1000	ml
Boric Buffer pH 9.0	12	BP502	1000	ml
Buffer (Acetate) Solution pH 5.0	12	BP503	1000	ml
Buffer (HEPES) Solution pH 7.5	12	BP504	1000	ml
Buffer (Phosphate) Solution pH 9.0	12	BP505	1000	ml
Buffer Solution pH 2.0	12	BP506	1000	ml
Buffer Solution pH 2.2	12	BP507	1000	ml
Buffer Solution pH 2.5	12	BP508	1000	ml
Buffer Solution pH 2.5 R1	12	BP509	1000	ml
Buffer Solution pH 3.0	12	BP510	1000	ml
Buffer Solution pH 3.7	12	BP511	1000	ml
Buffer Solution pH 5.2	12	BP512	1000	ml
Buffer Solution pH 5.5	12	BP513	1000	ml
Buffer Solution pH 6.5	12	BP514	1000	ml
Buffer Solution pH 6.6	12	BP515	1000	ml
Buffer Solution pH 7.0	12	BP516	1000	ml
Buffer Solution pH 7.4	12	BP517	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Buffer Solution pH 8.0 R1	12	BP518	1000	ml
Buffered Salt Solution pH 7.2	12	BP519	1000	ml
Carbonate Buffer pH 9.7	12	BP520	1000	ml
Chloride Buffer pH 2.0, 0.1M	12	BP521	1000	ml
Citrate Buffer Solution pH 5.0	12	BP522	1000	ml
Citrate Buffer Solution pH 3.0, 0.25M	12	BP523	1000	ml
Citro-phosphate Buffer pH 4.5	12	BP524	1000	ml
Citro-phosphate Buffer pH 5.0	12	BP525	1000	ml
Citro-phosphate Buffer pH 6.0	12	BP526	1000	ml
Citro-phosphate Buffer pH 6.5	12	BP527	1000	ml
Citro-phosphate Buffer pH 6.8	12	BP528	1000	ml
Citro-phosphate Buffer pH 7.0	12	BP529	1000	ml
Citro-phosphate Buffer pH 7.2	12	BP530	1000	ml
Citro-phosphate Buffer pH 7.6	12	BP531	1000	ml
Copper Sulphate Solution pH 4.0, Buffered	12	BP532	1000	ml
Copper Sulphate Solution pH 5.2, Buffered	12	BP533	1000	ml
Diethanolamine Buffer Solution pH 10.0	12	BP534	1000	ml
Diethylammonium Phosphate Buffer Solution pH 6.0	12	BP535	1000	ml
Glycine Buffer pH 2.9	12	BP536	1000	ml
Glycine Buffer pH 11.3	12	BP537	1000	ml
Glycine Buffer Solution	12	BP538	1000	ml
Imidazole Buffer Solution pH 6.5	12	BP539	1000	ml
Imidazole Buffer Solution pH 7.3	12	BP540	1000	ml
Maleate Buffer Solution pH 7.0	12	BP541	1000	ml
Phosphate Buffer pH 5.8	12	BP542	1000	ml
Phosphate Buffer pH 6.0	12	BP543	1000	ml
Phosphate Buffer pH 6.2	12	BP544	1000	ml
Phosphate Buffer pH 6.4	12	BP545	1000	ml
Phosphate Buffer pH 6.8	12	BP546	1000	ml
Phosphate Buffer pH 7.0	12	BP547	1000	ml
Phosphate Buffer pH 7.2	12	BP548	1000	ml
Phosphate Buffer pH 7.4	12	BP549	1000	ml
Phosphate Buffer pH 7.6	12	BP550	1000	ml
Phosphate Buffer pH 7.8	12	BP551	1000	ml
Phosphate Buffer pH 8.0	12	BP552	1000	ml
Phosphate Buffer pH 3.0	12	BP553	1000	ml
Phosphate Buffer pH 3.5	12	BP554	1000	ml
Phosphate Buffer pH 4.0	12	BP555	1000	ml
Phosphate Buffer pH 4.0, Mixed	12	BP556	1000	ml
Phosphate Buffer pH 4.75	12	BP557	1000	ml
Phosphate Buffer pH 4.9	12	BP558	1000	ml
Phosphate Buffer pH 5.4, Mixed	12	BP559	1000	ml
Phosphate Buffer pH 6.8, Mixed	12	BP560	1000	ml
Phosphate Buffer pH 6.8, 0.2M Mixed	12	BP561	1000	ml
Phosphate Buffer pH 7.0, Mixed	12	BP562	1000	ml
Phosphate Buffer pH 7.0, 0.067M Mixed	12	BP563	1000	ml
Phosphate Buffer pH 7.0, 0.1M Mixed	12	BP564	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phosphate Buffer pH 7.5, 0.2M	12	BP565	1000	ml
Phosphate Buffer pH 10, Mixed	12	BP566	1000	ml
Phosphate Buffer, 0.025M Standard	12	BP567	1000	ml
Phosphate Buffer Solution pH 2.0	12	BP568	1000	ml
Phosphate Buffer Solution pH 2.8	12	BP569	1000	ml
Phosphate Buffer Solution pH 3.0	12	BP570	1000	ml
Phosphate Buffer Solution pH 3.0, 0.1M	12	BP571	1000	ml
Phosphate Buffer Solution pH 3.0 R1	12	BP572	1000	ml
Phosphate Buffer Solution pH 3.2	12	BP573	1000	ml
Phosphate Buffer Solution pH 3.2 R1	12	BP574	1000	ml
Phosphate Buffer Solution pH 3.5	12	BP575	1000	ml
Phosphate Buffer Solution pH 4.5, 0.05M	12	BP576	1000	ml
Phosphate Buffer Solution pH 5.0	12	BP577	1000	ml
Phosphate Buffer Solution pH 5.4, 0.067M	12	BP578	1000	ml
Phosphate Buffer Solution pH 5.5	12	BP579	1000	ml
Phosphate Buffer Solution pH 5.6	12	BP580	1000	ml
Phosphate Buffer Solution pH 5.8	12	BP581	1000	ml
Phosphate Buffer Solution pH 6.0 R1	12	BP582	1000	ml
Phosphate Buffer Solution pH 6.0 R2	12	BP583	1000	ml
Phosphate Buffer Solution pH 6.3, 0.1M	12	BP584	1000	ml
Phosphate Buffer Solution pH 6.4	12	BP585	1000	ml
Phosphate Buffer Solution pH 6.5	12	BP586	1000	ml
Phosphate Buffer Solution pH 6.5, 0.1M	12	BP587	1000	ml
Phosphate Buffer Solution pH 6.8	12	BP588	1000	ml
Phosphate Buffer Solution pH 7.0	12	BP589	1000	ml
Phosphate Buffer Solution pH 7.0 R1	12	BP590	1000	ml
Phosphate Buffer Solution pH 7.0 R2	12	BP591	1000	ml
Phosphate Buffer Solution pH 7.0 R3	12	BP592	1000	ml
Phosphate Buffer Solution pH 7.0 R4	12	BP593	1000	ml
Phosphate Buffer Solution pH 7.0 R5	12	BP594	1000	ml
Phosphate Buffer Solution pH 7.0, 0.025M	12	BP595	1000	ml
Phosphate Buffer Solution pH 7.0, 0.03M	12	BP596	1000	ml
Phosphate Buffer Solution pH 7.0, 0.05M	12	BP597	1000	ml
Phosphate Buffer Solution pH 7.0, 0.063M	12	BP598	1000	ml
Phosphate Buffer Solution pH 7.2	12	BP599	1000	ml
Phosphate Buffer Solution pH 7.4	12	BP600	1000	ml
Phosphate Buffer Solution pH 7.5, 0.33M	12	BP601	1000	ml
Phosphate Buffer Solution pH 8.0, 0.02M	12	BP602	1000	ml
Phosphate Buffer Solution pH 8.0, 0.1M	12	BP603	1000	ml
Phosphate Buffer Solution pH 8.0, 1M	12	BP604	1000	ml
Phosphate Buffer Solution pH 9.0	12	BP605	1000	ml
Phosphate–Citrate Buffer Solution pH 5.5	12	BP606	1000	ml
Phthalate Buffer pH 3.6	12	BP607	1000	ml
Phthalate Buffer Solution pH 4.4	12	BP608	1000	ml
Phthalate Buffer Solution pH 6.4, 0.5M	12	BP609	1000	ml
Saline pH 6.4, Phosphate-buffered	12	BP610	1000	ml
Saline pH 6.8, Phosphate-buffered	12	BP611	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Saline pH 7.2, Phosphate-albumin Buffered	12	BP612	1000	ml
Saline pH 7.2 R1, Phosphate-albumin Buffered	12	BP613	1000	ml
Saline pH 7.4, Phosphate-buffered	12	BP614	1000	ml
Sodium Acetate Buffer Solution pH 4.5	12	BP615	1000	ml
Sodium Acetate Solution pH 6.0, Buffered	12	BP616	1000	ml
Sodium Citrate Buffer Solution pH 7.8 (0.034M Sodium Citrate, 0.101M Sodium Chloride)	12	BP617	1000	ml
Succinate Buffer Solution pH 4.6	12	BP618	1000	ml
Sulphate Buffer Solution pH 2.0	12	BP619	1000	ml
Tetrabutylammonium Buffer Solution pH 7.0	12	BP620	1000	ml
Total Ionic Strength Adjustment Buffer R1	12	BP621	1000	ml
Total Ionic Strength Adjustment Buffer	12	BP622	1000	ml
Tris-acetate Buffer Solution pH 8.	12	BP623	1000	ml
Tris-chloride Buffer pH 7.4	12	BP624	1000	ml
Tris-chloride Buffer pH 7.5	12	BP625	1000	ml
Tris-chloride Buffer pH 7.5 R1	12	BP626	1000	ml
Tris-chloride Buffer pH 8.1	12	BP627	1000	ml
Tris-chloride Buffer pH 8.6	12	BP628	1000	ml
Tris-EDTA Buffer pH 8.4	12	BP629	1000	ml
Tris-EDTA BSA Buffer Solution pH 8.4	12	BP630	1000	ml
Tris-glycine Buffer Solution pH 8.3	12	BP631	1000	ml
Tris-hydrochloride Buffer Solution pH 8.3	12	BP632	1000	ml
Tris-hydrochloride Buffer Solution pH 8.0, 1M	12	BP633	1000	ml
Tris-hydrochloride Buffer Solution pH 6.8, 1M	12	BP634	1000	ml
Tris-hydrochloride Buffer Solution pH 8.0	12	BP635	1000	ml
Tris-hydrochloride Buffer Solution pH 8.8, 1.5M	12	BP636	1000	ml
Tris(hydroxymethyl)aminomethane Buffer Solution pH 7.4	12	BP637	1000	ml
Tris(hydroxymethyl)aminomethane Sodium Chloride Buffer Solution pH 7.4 R1		BP638	1000	ml
Tris-sodium Acetate Buffer Solution pH 7.4		BP639	1000	ml
Tris-sodium Acetate-sodium Chloride Buffer Solution pH 7.4		BP640	1000	ml
Tris-sodium Acetate Buffer Solution pH 8.0		BP641	1000	ml
Tris-sodium Acetate-Sodium Chloride Buffer Solution pH 8.0		BP642	1000	ml
Phosphate Buffer Solution pH 8.5		BP643	1000	ml

Appendix IV A. Clarity of Solution

Hydrazine Sulphate Solution

Hexamethylenetetramine Solution

Primary opalescent Suspension

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Primary opalescent suspension	6	BPC001	100	ml
Hydrazine sulfate solution	6	BPC002	100	ml
Hexamethylenetetramine solution	6	BPC003	100	ml

Appendix IV B. Colour of Solution

Primary solutions

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Primary Blue solution	24	BPCB004	100	ml
Primary Red solution	24	BPCR003	100	ml
Primary Yellow solution	24	BPCY002	100	ml

Standard Solutions

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Standard solution B (brown)	6	BPB005	125	ml
Standard solution BY (brownish yellow)	6	BPBY006	125	ml
Standard solution GY (greenish yellow)	12	BPGY008	125	ml
Standard solution R (red)	6	BPR009	125	ml
Standard solution Y (yellow)	6	BPY007	125	ml
Colour Reference Solutions B: B1-B9	12	BPB105	9 x100	ml
Colour Reference Solutions BY: BY1-BY7	12	BPBY106	7 x100	ml
Colour Reference Solutions GY: GY1-GY7	6	BPGY108	7 x100	ml
Colour Reference Solutions R: R1-R7	12	BPR109	100	ml
Colour Reference Solutions Y: Y1-Y7	12	BPY107	7 x100	ml
Hydrochloric Acid (Dilution Matrix)	24	BPDM015	1000	ml

Japanese Pharmacopoeia Products

Standard Solutions for Volumetric Analysis

Standard Solutions for Volumetric Analysis are the solutions of reagent with an accurately known concentration, mainly used for the volumetric analysis. They are prepared to a specified molar concentration. A 1 molar solution is a solution which contains exactly 1 mol of a specified substance in each 1000 mL of the solution and is designated as 1 mol/l. If necessary, these solutions are diluted to other specified molar concentrations and the diluted solutions are also used as standard solutions.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium Thiocyanate, 0.1 mol/l	12	JPH001	1000	ml
Ammonium Iron (III) Sulfate, 0.1 mol/l	12	JPH002	1000	ml
Barium chloride, 0.1 mol/l	12	JPH003	1000	ml
Barium Chloride, 0.02 mol/l	12	JPH004	1000	ml
Barium Chloride, 0.01 mol/l	12	JPH005	1000	ml
Barium Perchlorate, 0.005 mol/l	12	JPH006	1000	ml
Bismuth Nitrate, 0.01 mol/l	12	JPH007	1000	ml
Bromine, 0.05 mol/l	12	JPH008	1000	ml
Cerium (IV) Tetraammonium Sulfate, 0.1 mol/l	12	JPH009	1000	ml
Disodium Dihydrogen Ethylenediamine Tetraacetate, 0.1 mol/l	24	JPH010	1000	ml
Disodium Dihydrogen Ethylenediamine Tetraacetate,0.05 mol/l	24	JPH011	1000	ml
Disodium Dihydrogen Ethylenediamine Tetraacetate, 0.02 mol/l	24	JPH012	1000	ml
Hydrochloric Acid, 2 mol/l	12	JPH013	1000	ml
Hydrochloric Acid, 1 mol/l	24	JPH014	1000	ml
Hydrochloric Acid, 0.5 mol/l	24	JPH015	1000	ml
Hydrochloric Acid, 0.2 mol/l	24	JPH016	1000	ml
Iodine, 0.05 mol/l	12	JPH017	1000	ml
Magnesium Chloride, 0.05 mol/l	12	JPH018	1000	ml
Oxalic Acid, 0.05 mol/l	12	JPH019	1000	ml
Perchloric Acid, 0.1 mol/l	12	JPH020	1000	ml
Perchloric Acid-1,4-Dioxane, 0.1 mol/l	12	JPH021	1000	ml
Potassium Bromate, 1/60 mol/l	12	JPH022	1000	ml
Potassium Dichromate, 1/60 mol/l	12	JPH023	1000	ml
Potassium Hexacyanoferrate (III), 0.1 mol/l	12	JPH024	1000	ml
Potassium Hydroxide, 1 mol/l	12	JPH025	1000	ml
Potassium Hydroxide, 0.5 mol/l	12	JPH026	1000	ml
Potassium Hydroxide, 0.1 mol/l	12	JPH027	1000	ml
Potassium Hydroxide-Ethanol, 0.5 mol/l	12	JPH028	1000	ml
Potassium Iodate, 0.05 mol/l	12	JPH029	1000	ml
Potassium Iodate, 1/60 mol/l	12	JPH030	1000	ml
Potassium Iodate, 1/1200 mol/l	12	JPH031	1000	ml
Potassium Permanganate, 0.02 mol/l	12	JPH032	1000	ml
Silver Nitrate, 0.1 mol/l	24	JPH033	1000	ml
Sodium Acetate, 0.1 mol/l	12	JPH034	1000	ml
Sodium Hydroxide, 1 mol/l	12	JPH035	1000	ml
Sodium Hydroxide, 0.5 mol/l	12	JPH036	1000	ml
Sodium Hydroxide, 0.2 mol/l	12	JPH037	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sodium Hydroxide, 0.1 mol/l	12	JPH038	1000	ml
Sodium Lauryl Sulfate, 0.01 mol/l	12	JPH039	1000	ml
Sodium Methoxide, 0.1 mol/l	12	JPH040	1000	ml
Sodium Methoxide-1,4-Dioxane, 0.1 mol/l	12	JPH041	1000	ml
Sodium Nitrite, 0.1 mol/l	12	JPH042	1000	ml
Sodium Oxalate, 0.005 mol/l	12	JPH043	1000	ml
Sodium Thiosulfate, 0.1 mol/l	24	JPH044	1000	ml
Sulfuric Acid, 0.5 mol/l	24	JPH045	1000	ml
Sulfuric Acid, 0.25 mol/l	24	JPH046	1000	ml
Sulfuric Acid, 0.1 mol/l	24	JPH047	1000	ml
Sulfuric Acid, 0.05 mol/l	24	JPH048	1000	ml
Titanium (III) Chloride, 0.1 mol/l	12	JPH049	100	ml
Zinc, 0.1 mol/l	12	JPH050	1000	ml
Zinc Acetate, 0.05 mol/l	12	JPH051	1000	ml
Zinc Acetate, 0.02 mol/l	12	JPH052	1000	ml
Zinc Sulfate, 0.1 mol/l	12	JPH053	1000	ml

Standard Solutions

Standard Solutions are used as the standard for the comparison in a text of the Pharmacopoeia.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Borate pH Standard Solution	12	JPH054	200	ml
Calcium Hydroxide pH Standard Solution	12	JPH055	200	ml
Carbonate pH Standard Solution	12	JPH056	200	ml
Oxalate pH Standard Solution	12	JPH057	200	ml
pH Standard Solution, Borate	12	JPH058	200	ml
pH Standard Solution, Calcium Hydroxide	12	JPH059	200	ml
pH Standard Solution, Carbonate	12	JPH060	200	ml
pH Standard Solution, Oxalate	12	JPH061	200	ml
pH Standard Solution, Phosphate	12	JPH062	200	ml
pH Standard Solution, Phthalate	12	JPH063	200	ml
Phosphate pH Standard Solution	12	JPH064	200	ml
Phthalate pH Standard Solution	12	JPH065	200	ml
Standard Aluminum Stock Solution	12	JPH066	100	ml
Standard Ammonium Solution	12	JPH067	100	ml
Standard Arsenic Stock Solution	12	JPH068	100	ml
Standard Boron Solution	12	JPH069	100	ml
Standard Cadmium Stock Solution	12	JPH070	100	ml
Standard Calcium Solution	12	JPH071	100	ml
Standard Calcium Solution for Atomic Absorption Spectrophotometry	12	JPH072	100	ml
Standard Copper Stock Solution	12	JPH073	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Standard Cyanide Stock Solution	12	JPH074	100	ml
Standard Fluorine Solution	12	JPH075	100	ml
Standard Gold Stock Solution	12	JPH076	100	ml
Standard Gold Solution for Atomic Absorption Spectrophotometry	12	JPH077	100	ml
Standard Iron Solution	12	JPH078	100	ml
Standard Lead Stock Solution	12	JPH079	100	ml
Standard Mercury Solution (100 times concentrated)	12	JPH080	100	ml
Standard Methanol Solution	12	JPH081	100	ml
Standard Nickel Solution	12	JPH082	100	ml
Standard Nitric Acid Solution	12	JPH083	100	ml
Standard Phosphoric Acid Solution	12	JPH084	100	ml
Standard Potassium Stock Solution	12	JPH085	100	ml
Standard Selenium Stock Solution	12	JPH086	100	ml
Standard Silver Stock Solution	12	JPH087	100	ml
Standard Sodium Dodecylbenzene Sulfonate Solution	12	JPH088	100	ml
Standard Sodium Stock Solution	12	JPH089	100	ml
Standard Tin Solution (100 times concentrated)	12	JPH090	100	ml
Standard Zinc Stock Solution	12	JPH091	100	ml
Standard Zinc Solution for Atomic Absorption Spectrophotometry	12	JPH092	100	ml

Matching Fluids for Color

Matching Fluids for Color are used as the reference for the comparison of color in a text of the Pharmacopoeia. When the color of the solution is compared with Matching Fluids for Color, unless otherwise specified, transfer both solutions and liquids to Nessler tubes and view transversely against a white background.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Cobalt (II) Chloride Colorimetric Stock Solution	24	JPH093	100	ml
Copper (II) Sulfate Colorimetric Stock Solution	24	JPH094	100	ml
Iron (III) Chloride Colorimetric Stock Solution	24	JPH095	100	ml
Matching Fluids for Color - kit of 20 fluids (A-T)	12	JPH096	20 x10	ml

Reagents, Test Solutions

Reagents are the substances used in the tests of the Pharmacopoeia

Test Solutions are the solutions prepared for use in the tests of the Pharmacopoeia.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetate buffer solution, pH 3.5	12	JPH097	100	ml
Acetate buffer solution, pH 3.5	12	JPH097a	1000	ml
Acetate buffer solution, pH 4.5	12	JPH098	100	ml
Acetate buffer solution, pH 4.5	12	JPH098a	1000	ml
Acetate buffer solution, pH 5.4	12	JPH099	100	ml
Acetate buffer solution, pH 5.4	12	JPH099a	1000	ml
0.01 mol/l Acetate buffer solution, pH 5.0	12	JPH100	100	ml
0.01 mol/l Acetate buffer solution, pH 5.0	12	JPH100a	1000	ml
Acetate buffer solution, pH 5.5	12	JPH101	100	ml
Acetate buffer solution, pH 5.5	12	JPH101a	1000	ml
Acetic acid-ammonium acetate buffer solution, pH 3.0	12	JPH102	100	ml
Acetic acid-ammonium acetate buffer solution, pH 3.0	12	JPH102a	1000	ml
Acetic acid-ammonium acetate buffer solution, pH 4.5	12	JPH103	100	ml
Acetic acid-ammonium acetate buffer solution, pH 4.5	12	JPH103a	1000	ml
Acetic acid-ammonium acetate buffer solution, pH 4.8	12	JPH104	100	ml
Acetic acid-ammonium acetate buffer solution, pH 4.8	12	JPH104a	1000	ml
Acetic acid, dilute	24	JPH105	100	ml
Acetic acid, dilute	24	JPH105a	1000	ml
Acetic acid-potassium acetate buffer solution, pH 4.3	12	JPH106	100	ml
Acetic acid-potassium acetate buffer solution, pH 4.3	12	JPH106a	1000	ml
Acetic acid-sodium acetate buffer solution, 0.05 mol/l, pH 4.0	12	JPH107	100	ml
Acetic acid-sodium acetate buffer solution, 0.05 mol/l, pH 4.0	12	JPH107a	1000	ml
0.05 mol/l Acetic acid-sodium acetate buffer solution, pH 4.0	12	JPH108	100	ml
0.05 mol/l Acetic acid-sodium acetate buffer solution, pH 4.0	12	JPH108a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 4.5	12	JPH109	100	ml
Acetic acid-sodium acetate buffer solution, pH 4.5	12	JPH109a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 4.5, for iron limit test	12	JPH110	100	ml
Acetic acid-sodium acetate buffer solution, pH 4.5, for iron limit test	12	JPH110a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 4.7	12	JPH111	100	ml
Acetic acid-sodium acetate buffer solution, pH 4.7	12	JPH111a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 5.0	12	JPH112	100	ml
Acetic acid-sodium acetate buffer solution, pH 5.0	12	JPH112a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 5.5	12	JPH113	100	ml
Acetic acid-sodium acetate buffer solution, pH 5.5	12	JPH113a	1000	ml
Acetic acid-sodium acetate buffer solution, pH 5.6	12	JPH114	100	ml
Acetic acid-sodium acetate buffer solution, pH 5.6	12	JPH114a	1000	ml
1 mol/l Acetic acid-sodium acetate buffer solution, pH 5.0	12	JPH115	100	ml
1 mol/l Acetic acid-sodium acetate buffer solution, pH 5.0	12	JPH115a	1000	ml
0.1 mol/l Acetic acid-sodium acetate buffer solution, pH 4.0	12	JPH116	100	ml
0.1 mol/l Acetic acid-sodium acetate buffer solution, pH 4.0	12	JPH116a	1000	ml
0.05 mol/l Acetic acid-sodium acetate buffer solution, pH 4.6	12	JPH117	100	ml
0.05 mol/l Acetic acid-sodium acetate buffer solution, pH 4.6	12	JPH117a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic acid-sodium acetate TS	12	JPH118	100	ml
Acetic acid-sodium acetate TS	12	JPH118a	1000	ml
0.02 mol/l Acetic acid-sodium acetate TS	12	JPH119	100	ml
0.02 mol/l Acetic acid-sodium acetate TS	12	JPH119a	1000	ml
6 mol/l Acetic acid TS	24	JPH120	100	ml
6 mol/l Acetic acid TS	24	JPH120a	1000	ml
0.25 mol/l Acetic acid TS	24	JPH121	100	ml
0.25 mol/l Acetic acid TS	24	JPH121a	1000	ml
Acetic acid (100)-sulfuric acid TS	24	JPH122	100	ml
Acetic acid (100)-sulfuric acid TS	24	JPH122a	1000	ml
Acetic acid (31)	24	JPH123	100	ml
Acetic acid (31)	24	JPH123a	1000	ml
Acetic anhydride-pyridine TS	12	JPH124	100	ml
Alizarin complexone TS	12	JPH125	100	ml
Alizarin red S TS	12	JPH126	100	ml
Alizarin yellow GG-thymolphthalein TS	12	JPH127	100	ml
Alizarin yellow GG TS	12	JPH128	100	ml
Alkali copper TS	12	JPH129	100	ml
Alkaline copper TS	12	JPH130	100	ml
Alkaline glycerin TS	12	JPH131	100	ml
Aluminon TS	12	JPH132	100	ml
Aluminum (III) chloride TS	12	JPH133	100	ml
4-Aminoacetophenone TS	12	JPH134	100	ml
Ammonia-ammonium acetate buffer solution, pH 8.0	12	JPH135	100	ml
Ammonia-ammonium acetate buffer solution, pH 8.0	12	JPH135a	1000	ml
Ammonia-ammonium acetate buffer solution, pH 8.5	12	JPH136	100	ml
Ammonia-ammonium acetate buffer solution, pH 8.5	12	JPH136a	1000	ml
Ammonia-ammonium chloride buffer solution, pH 8.0	12	JPH137	100	ml
Ammonia-ammonium chloride buffer solution, pH 8.0	12	JPH137a	1000	ml
Ammonia-ammonium chloride buffer solution, pH 10.0	12	JPH138	100	ml
Ammonia-ammonium chloride buffer solution, pH 10.0	12	JPH138a	1000	ml
Ammonia-ammonium chloride buffer solution, pH 10.7	12	JPH139	100	ml
Ammonia-ammonium chloride buffer solution, pH 10.7	12	JPH139a	1000	ml
Ammonia-ammonium chloride buffer solution, pH 11.0	12	JPH140	100	ml
Ammonia-ammonium chloride buffer solution, pH 11.0	12	JPH140a	1000	ml
Ammonia copper TS	12	JPH141	100	ml
Ammonia-ethanol TS	12	JPH142	100	ml
Ammonia-saturated 1-butanol TS	12	JPH143	100	ml
Ammonia-saturated 1-butanol TS	12	JPH143a	50	ml
Ammonia TS	12	JPH144	100	ml
Ammonia TS	12	JPH144a	1000	ml
1 mol/l Ammonia water	12	JPH145	100	ml
1 mol/l Ammonia water	12	JPH145a	1000	ml
13.5 mol/l Ammonia water	12	JPH146	100	ml
13.5 mol/l Ammonia water	12	JPH146a	500	ml
Ammonium acetate TS	12	JPH147	100	ml
Ammonium acetate TS	12	JPH147a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
0.5 mol/l Ammonium acetate TS	12	JPH148	100	ml
0.5 mol/l Ammonium acetate TS	12	JPH148a	1000	ml
Ammonium carbonate TS	12	JPH149	100	ml
Ammonium carbonate TS	12	JPH149	1000	ml
Ammonium chloride-ammonia TS	12	JPH150	100	ml
Ammonium chloride-ammonia TS	12	JPH150a	500	ml
Ammonium chloride buffer solution, pH 10	12	JPH151	100	ml
Ammonium chloride buffer solution, pH 10	12	JPH151a	1000	ml
Ammonium chloride TS	24	JPH152	100	ml
Ammonium chloride TS	24	JPH152a	1000	ml
0.02 mol/l Ammonium dihydrogenphosphate TS	12	JPH153	100	ml
0.02 mol/l Ammonium dihydrogenphosphate TS	12	JPH153a	1000	ml
0.05 mol/l Ammonium formate buffer solution, pH 4.0	12	JPH154	100	ml
0.05 mol/l Ammonium formate buffer solution, pH 4.0	12	JPH154a	1000	ml
Ammonium iron (III) sulfate TS	12	JPH155	100	ml
Ammonium iron (III) sulfate TS, acidic	12	JPH156	100	ml
Ammonium iron (III) sulfate TS, dilute	12	JPH157	100	ml
Ammonium oxalate TS	12	JPH158	100	ml
10% Ammonium peroxodisulfate TS	12	JPH159	100	ml
Ammonium sulfate buffer solution	12	JPH160	100	ml
Ammonium thiocyanate-cobalt (II) nitrate TS	12	JPH161	100	ml
Ammonium thiocyanate TS	12	JPH162	100	ml
Anthrone TS	12	JPH163	100	ml
Arsenic (III) trioxide TS	12	JPH164	100	ml
Arsenic trioxide TS (ъ arsenic (III) trioxide TS)		JPH164		
Barbital buffer solution	12	JPH166	100	ml
Barium chloride TS	24	JPH167	100	ml
Barium nitrate TS	12	JPH168	100	ml
Bismuth nitrate TS	12	JPH169	100	ml
Bismuth potassium iodide TS	12	JPH170	100	ml
Bismuth subnitrate TS	12	JPH171	100	ml
Borate-hydrochloric acid buffer solution, pH 9.0	12	JPH172	100	ml
Borate-hydrochloric acid buffer solution, pH 9.0	12	JPH172a	1000	ml
Boric acid-methanol buffer solution	12	JPH173	100	ml
Boric acid-potassium chloride-sodium hydroxide buffer solution, pH 9.0	12	JPH174	200	ml
Boric acid-potassium chloride-sodium hydroxide buffer solution, pH 9.2	12	JPH175	200	ml
Boric acid-potassium chloride-sodium hydroxide buffer solution, pH 9.6	12	JPH176	200	ml
Boric acid-potassium chloride-sodium hydroxide buffer solution, pH 10.0	12	JPH177	200	ml
0.2 mol/l Boric acid-0.2 mol/l potassium chloride TS for buffer solution	12	JPH178	200	ml
Bromine-acetic acid TS	3	JPH179	100	ml
Bromine TS	3	JPH180	100	ml
Bromocresol green-crystal violet TS	12	JPH181	100	ml
Bromocresol green-methyl red TS	12	JPH182	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Bromocresol green-sodium hydroxide-acetic acid-sodium acetate TS	12	JPH183	100	ml
Bromocresol green-sodium hydroxide-ethanol TS	12	JPH184	100	ml
Bromocresol green-sodium hydroxide TS	12	JPH185	100	ml
Bromocresol green-sodium hydroxide TS	12	JPH185a	200	ml
Bromocresol green TS	24	JPH186	100	ml
Bromocresol purple-dipotassium hydrogenphosphatecitric acid TS	12	JPH187	100	ml
Bromocresol purple-sodium hydroxide TS	12	JPH188	100	ml
Bromocresol purple TS	24	JPH189	100	ml
Bromophenol blue-potassium biphthalate TS	12	JPH190	100	ml
Bromophenol blue TS	24	JPH191	100	ml
0.05% Bromophenol blue TS	12	JPH192	100	ml
Bromophenol blue TS, pH 7.0	12	JPH193	100	ml
N-Bromosuccinimide TS	12	JPH194	1000	ml
Bromothymol blue-sodium hydroxide TS	12	JPH195	100	ml
Bromothymol blue TS	12	JPH196	100	ml
Calcium chloride TS	12	JPH197	100	ml
0.1 mol/l Carbonate buffer solution, pH 9.6	12	JPH198	100	ml
0.1 mol/l Carbonate buffer solution, pH 9.6	12	JPH198a	1000	ml
Cerium (III) nitrate TS	12	JPH199	100	ml
Cerium (III) nitrate TS	12	JPH199a	1000	ml
Cerium (IV) tetraammonium sulfate-phosphoric acid TS	12	JPH200	100	ml
Cerium (IV) tetraammonium sulfate TS	12	JPH201	100	ml
Chloral hydrate TS	12	JPH202	100	ml
Chromium (VI) trioxide TS	12	JPH203	100	ml
Chromotropic acid TS	12	JPH204	100	ml
Citric acid-acetic acid TS	12	JPH205	100	ml
Citric acid-phosphate-acetonitrile TS	12	JPH206	100	ml
Citric acid-phosphate-acetonitrile TS	12	JPH206a	1000	ml
0.01 mol/l Citric acid TS	12	JPH207	100	ml
0.01 mol/l Citric acid TS	12	JPH207a	1000	ml
1 mol/l Citric acid TS for buffer solution	12	JPH208	100	ml
1 mol/l Citric acid TS for buffer solution	12	JPH208a	1000	ml
Cobalt (II) chloride-ethanol TS	12	JPH209	100	ml
Cobalt (II) chloride TS	12	JPH210	100	ml
Congo red TS	24	JPH211	100	ml
Copper (II) acetate TS, strong	12	JPH212	100	ml
Copper (II) chloride-acetone TS	12	JPH213	100	ml
Copper (II) sulfate solution, alkaline	12	JPH214	1000	ml
Copper (II) sulfate TS	12	JPH215	100	ml
m-Cresol purple TS	24	JPH216	100	ml
Cresol red TS	12	JPH217	100	ml
Crystal violet TS	12	JPH218	100	ml
1 mol/l Cupriethylenediamine TS	12	JPH219	1000	ml
2,3-Diaminonaphthalene TS	12	JPH220	100	ml
2,4-Diaminophenol hydrochloride TS	6	JPH221	100	ml
Dichlorofluorescein TS	12	JPH222	100	ml
Dilute bismuth subnitrate-potassium iodide TS for spray	12	JPH223	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
4-Dimethylaminobenzaldehyde-hydrochloric acid TS	12	JPH224	100	ml
2,4-Dinitrophenylhydrazine-ethanol TS	6	JPH228	100	ml
2,4-Dinitrophenylhydrazine TS	6	JPH229	100	ml
Diphenylamine-acetic acid TS	12	JPH230	100	ml
Diphenylamine TS	12	JPH231	100	ml
Diphenylcarbazone TS	12	JPH232	100	ml
Dipotassium hydrogen phosphate-citric acid buffer solution, pH 5.3	12	JPH233	100	ml
1 mol/l Dipotassium hydrogen phosphate TS for buffer solution	12	JPH234	100	ml
1 mol/l Dipotassium hydrogen phosphate TS for buffer solution	12	JPH234a	1000	ml
0.1 mol/l Disodium dihydrogen ethylenediamine tetraacetate TS	24	JPH235	1000	ml
0.04 mol/l Disodium dihydrogen ethylenediamine tetraacetate TS	24	JPH236	1000	ml
0.4 mol/l Disodium dihydrogen ethylenediamine tetraacetate TS, pH 8.5	24	JPH237	1000	ml
0.4 mol/l Disodium dihydrogen ethylenediamine tetraacetate TS, pH 8.5	24	JPH237a	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 3.0	12	JPH238	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 3.0	12	JPH238a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 4.5	12	JPH239	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 4.5	12	JPH239a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 5.4	12	JPH240	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 5.4	12	JPH240a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution, 0.05 mol/l, pH 6.0	12	JPH241	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, 0.05 mol/l, pH 6.0	12	JPH241a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 6.0	12	JPH242	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 6.0	12	JPH242a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 7.2	12	JPH243	100	ml
Disodium hydrogen phosphate-citric acid buffer solution, pH 7.2	12	JPH243a	1000	ml
Disodium hydrogen phosphate-citric acid buffer solution for penicillium origin b-galactosidase, pH 4.5	12	JPH244	100	ml
Disodium hydrogen phosphate-citric acid buffer solution for penicillium origin b-galactosidase, pH 4.5	12	JPH244a	1000	ml
Disodium hydrogen phosphate TS	12	JPH245	100	ml
0.05 mol/l Disodium hydrogen phosphate TS	12	JPH246	1000	ml
0.5 mol/l Disodium hydrogen phosphate TS	12	JPH247	1000	ml
2,6-Di-tert-butylcresol TS	12	JPH248	100	ml
Dragendorff's TS (A+B)	6	JPH249	100	ml
Edetate Disodium TS	12	JPH250	1000	ml
Eriochrome black T-sodium chloride indicator	24	JPH251	100	ml
Ethanol, aldehyde-free	12	JPH252	1000	ml
Ethanol, dilute	12	JPH253	1000	ml
Ethylenediamine TS	12	JPH254	100	ml
Fehling's TS (A+B)	12	JPH255	500+500	ml
Fehling's TS for amylolytic activity test (A+B)	12	JPH256	500+500	ml
Ferric Ammonium Sulfate TS	12	JPH257	100	ml
Fluorescein sodium TS	12	JPH258	100	ml
Folin's TS	12	JPH259	100	ml
Folin's TS, dilute	12	JPH260	100	ml
Formaldehyde solution TS	12	JPH261	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Fuchsin-ethanol TS	12	JPH262	100	ml
Gelatin-phosphate buffer solution	12	JPH263	100	ml
Gelatin-phosphate buffer solution	12	JPH263a	1000	ml
Gelatin-phosphate buffer solution, pH 7.0	12	JPH264	100	ml
Gelatin-phosphate buffer solution, pH 7.0	12	JPH264a	1000	ml
Gelatin-phosphate buffer solution, pH 7.4	12	JPH265	100	ml
Gelatin-phosphate buffer solution, pH 7.4	12	JPH265a	1000	ml
Gelatin-tris buffer solution	12	JPH266	100	ml
Gelatin-tris buffer solution	12	JPH266a	1000	ml
Gelatin-tris buffer solution, pH 8.0	12	JPH267	100	ml
Gelatin-tris buffer solution, pH 8.0	12	JPH267a	1000	ml
Griess-Romijin's nitric acid reagent	12	JPH268	30	ml
Griess-Romijin's nitrous acid reagent	12	JPH269	100	ml
Hanus' TS	12	JPH270	100	ml
Hanus' TS	12	JPH270a	1000	ml
Hydrochloric acid-ammonium acetate buffer solution, pH 3.5	12	JPH271	100	ml
Hydrochloric acid-ammonium acetate buffer solution, pH 3.5	12	JPH271a	1000	ml
Hydrochloric acid, dilute	12	JPH272	100	ml
Hydrochloric acid, dilute	12	JPH272a	1000	ml
Hydrochloric acid-ethanol (95) TS	12	JPH273	100	ml
Hydrochloric acid-ethanol (95) TS	12	JPH273a	1000	ml
0.01 mol/l Hydrochloric acid-methanol TS	24	JPH274	100	ml
0.01 mol/l Hydrochloric acid-methanol TS	24	JPH274a	1000	ml
0.05 mol/l Hydrochloric acid-methanol TS	24	JPH275	100	ml
0.05 mol/l Hydrochloric acid-methanol TS	24	JPH275a	1000	ml
Hydrochloric acid-2-propanol TS	12	JPH276	100	ml
Hydrochloric acid-2-propanol TS	12	JPH276a	1000	ml
Hydrochloric acid-potassium chloride buffer solution, pH 2.0	12	JPH277	100	ml
Hydrochloric acid-potassium chloride buffer solution, pH 2.0	12	JPH277a	1000	ml
Hydrochloric acid, purifed	12	JPH278	100	ml
Hydrochloric acid, purifed	12	JPH278a	500	ml
0.001 mol/l Hydrochloric acid TS	12	JPH279	1000	ml
0.01 mol/l Hydrochloric acid TS	12	JPH280	1000	ml
0.02 mol/l Hydrochloric acid TS	12	JPH281	1000	ml
0.05 mol/l Hydrochloric acid TS	12	JPH282	1000	ml
0.1 mol/l Hydrochloric acid TS	12	JPH283	1000	ml
0.2 mol/l Hydrochloric acid TS	12	JPH284	1000	ml
0.5 mol/l Hydrochloric acid TS	12	JPH285	1000	ml
1 mol/l Hydrochloric acid TS	24	JPH286	1000	ml
2 mol/l Hydrochloric acid TS	24	JPH287	1000	ml
3 mol/l Hydrochloric acid TS	24	JPH288	1000	ml
5 mol/l Hydrochloric acid TS	24	JPH289	1000	ml
6 mol/l Hydrochloric acid TS	24	JPH290	1000	ml
7.5 mol/l Hydrochloric acid TS	24	JPH291	1000	ml
10 mol/l Hydrochloric acid TS	24	JPH292	1000	ml
Hydrogen hexachloroplatinate (IV) TS	12	JPH293	10	ml
Hydrogen sulfide TS	6	JPH294	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Hydroxylammonium chloride-iron (III) chloride TS	12	JPH295	100	ml
Hydroxylammonium chloride TS	12	JPH296	100	ml
Hydroxylammonium chloride TS, pH 3.1	12	JPH297	100	ml
Hydroxylammonium chloride-ethanol TS	6	JPH298	100	ml
Imidazole TS	12	JPH299	100	ml
Imidazole TS	12	JPH299a	500	ml
Indigo carmine TS	3	JPH300	100	ml
Iodine-starch TS	12	JPH301	100	ml
Iodine TS	12	JPH302	100	ml
Iodine TS	12	JPH302a	1000	ml
Iodine TS, dilute	12	JPH303	100	ml
Iodine TS, dilute	12	JPH303a	1000	ml
0.5 mol/l Iodine TS	12	JPH304	100	ml
0.5 mol/l Iodine TS	12	JPH304a	1000	ml
Iron (III) chloride-acetic acid TS	12	JPH305	100	ml
Iron (III) chloride-iodine TS	6	JPH306	100	ml
Iron (III) chloride-methanol TS	12	JPH307	100	ml
Iron (III) chloride-pyridine TS, anhydrous	12	JPH308	100	ml
Iron (III) chloride TS	12	JPH309	100	ml
Iron (III) chloride TS, acidic	12	JPH310	100	ml
Iron (III) nitrate TS	12	JPH311	100	ml
Iron (III) perchlorate-ethanol TS	12	JPH312	100	ml
Iron (III) sulfate TS	12	JPH313	100	ml
Iron (III) sulfate TS	12	JPH313a	1000	ml
Iron (II) tartrate TS	12	JPH314	100	ml
Iron (II) thiocyanate TS	6	JPH315	100	ml
Iron-phenol TS	6	JPH316	100	ml
Isoniazid TS	12	JPH317	100	ml
Lactic acid TS	12	JPH318	100	ml
Lead (II) acetate TS	6	JPH319	100	ml
Lead subacetate TS	12	JPH320	100	ml
Magnesia TS	12	JPH321	100	ml
Magnesium sulfate TS	12	JPH322	100	ml
Mercury (II) acetate TS for nonaqueous titration	6	JPH323	100	ml
Mercury (II) chloride TS	12	JPH324	100	ml
Metanil yellow TS	12	JPH325	100	ml
Methanesulfonic acid TS	12	JPH326	100	ml
Methanesulfonic acid TS	12	JPH326a	500	ml
0.1 mol/l Methanesulfonic acid TS	12	JPH327	100	ml
0.1 mol/l Methanesulfonic acid TS	12	JPH327a	500	ml
Methanol, anhydrous	12	JPH328	100	ml
Methanol, anhydrous	12	JPH328a	1000	ml
Methylene blue-potassium perchlorate TS	12	JPH329	100	ml
Methylene blue-potassium perchlorate TS	12	JPH329a	500	ml
Methylene blue-sulfuric acid-sodium dihydrogenphosphate TS	12	JPH330	100	ml
Methylene blue-sulfuric acid-sodium dihydrogenphosphate TS	12	JPH330a	1000	ml
Methylene blue TS	12	JPH331	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Methyl orange-boric acid TS	12	JPH332	100	ml
Methyl orange TS	24	JPH333	100	ml
Methyl orange-xylenecyanol FF TS	12	JPH334	100	ml
Methyl red-methylene blue TS	12	JPH335	100	ml
Methyl red TS	18	JPH336	100	ml
Methyl red TS for acid or alkali test	6	JPH337	100	ml
Methyl red TS for acid or alkali test	6	JPH337a	200	ml
Methylthymol blue-potassium nitrate indicator	12	JPH338	50	ml
Methylthymol blue-sodium chloride indicator	12	JPH339	50	ml
Methyl yellow TS	12	JPH340	100	ml
Molybdenum (III) oxide-citric acid TS	12	JPH341	100	ml
0.02 mol/l 3-(N-Morpholino) propanesulfonic acid buffer solution, pH 7.0	6	JPH342	100	ml
0.02 mol/l 3-(N-Morpholino) propanesulfonic acid buffer solution, pH 7.0	6	JPH342a	1000	ml
0.02 mol/l 3-(N-Morpholino)propanesulfonic acid buffer solution, pH 8.0	6	JPH343	100	ml
0.02 mol/l 3-(N-Morpholino)propanesulfonic acid buffer solution, pH 8.0	6	JPH343a	1000	ml
0.1 mol/l 3-(N-Morpholino)propanesulfonic acid buffer solution, pH 7.0	6	JPH344	100	ml
0.1 mol/l 3-(N-Morpholino)propanesulfonic acid buffer solution, pH 7.0	6	JPH344a	1000	ml
Murexide-sodium chloride indicator	12	JPH345	30	ml
Murexide-sodium chloride indicator	12	JPH345a	100	ml
1,3-Naphthalenediol	12	JPH346	30	ml
1,3-Naphthalenediol	12	JPH346a	100	ml
p-Naphtholbenzein TS	12	JPH347	100	ml
Neutral red TS	12	JPH348	100	ml
Ninhydrin-acetic acid TS	12	JPH349	100	ml
Ninhydrin-butanol TS	12	JPH350	100	ml
Ninhydrin-citric acid-acetic acid TS	12	JPH351	100	ml
0.2% Ninhydrin-water saturated 1-butanol TS	6	JPH352	100	ml
Nitric acid, dilute	24	JPH353	100	ml
2 mol/l Nitric acid TS	24	JPH354	100	ml
2,2prime,2second-Nitrilotrisethanol buffer solution, pH 7.8	12	JPH355	1000	ml
2,2prime,2second-Nitrilotrisethanol buffer solution, pH 7.8	12	JPH355a	5000	ml
1-Nitroso-2-naphthol TS	12	JPH356	100	ml
NN Indicator	12	JPH357	50	ml
Oxalic acid TS	12	JPH358	100	ml
Palladium (II) chloride TS	12	JPH359	100	ml
Perchloric acid-ethanol TS	12	JPH360	100	ml
1,10-Phenanthroline TS	12	JPH361	30	ml
Phenol-hydrochloric acid TS	12	JPH362	30	ml
Phenol-hydrochloric acid TS	12	JPH362a	100	ml
Phenolphthalein-thymol blue TS (A+B)	12	JPH363	(100:150)	ml
Phenolphthalein TS	24	JPH364	100	ml
Phenolphthalein TS, alkaline	12	JPH365	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phenol red TS	12	JPH366	100	ml
Phenol red TS, dilute	12	JPH367	100	ml
Phenylhydrazinium chloride TS	12	JPH368	100	ml
Phosphate buffer solution for component determination of bupleurum root	12	JPH369	100	ml
Phosphate buffer solution for component determination of bupleurum root	12	JPH369a	1000	ml
Phosphate buffer solution for pancreatin	12	JPH370	100	ml
Phosphate buffer solution for pancreatin	12	JPH370a	500	ml
Phosphate buffer solution, pH 3.0	12	JPH371	100	ml
Phosphate buffer solution, pH 3.0	12	JPH371a	1000	ml
0.02 mol/l Phosphate buffer solution, pH 3.0	12	JPH372	100	ml
0.02 mol/l Phosphate buffer solution, pH 3.0	12	JPH372a	1000	ml
Phosphate buffer solution, pH 3.1	12	JPH373	100	ml
Phosphate buffer solution, pH 3.1	12	JPH373a	1000	ml
0.05 mol/l Phosphate buffer solution, pH 3.5	12	JPH374	100	ml
0.05 mol/l Phosphate buffer solution, pH 3.5	12	JPH374a	1000	ml
0.02 mol/l Phosphate buffer solution, pH 3.5	12	JPH375	100	ml
0.02 mol/l Phosphate buffer solution, pH 3.5	12	JPH375a	1000	ml
0.1 mol/l Phosphate buffer solution, pH 4.5	12	JPH376	100	ml
0.1 mol/l Phosphate buffer solution, pH 4.5	12	JPH376a	1000	ml
0.1 mol/l Phosphate buffer solution, pH 5.3	12	JPH377	100	ml
0.1 mol/l Phosphate buffer solution, pH 5.3	12	JPH377a	1000	ml
1/15 mol/l Phosphate buffer solution, pH 5.6	12	JPH378	100	ml
1/15 mol/l Phosphate buffer solution, pH 5.6	12	JPH378a	1000	ml
Phosphate buffer solution, pH 5.9	12	JPH379	100	ml
Phosphate buffer solution, pH 5.9	12	JPH379a	1000	ml
Phosphate buffer solution, pH 6.0	12	JPH380	100	ml
Phosphate buffer solution, pH 6.0	12	JPH380a	1000	ml
0.05 mol/l Phosphate buffer solution, pH 6.0	12	JPH381	100	ml
0.05 mol/l Phosphate buffer solution, pH 6.0	12	JPH381a.	1000	ml
Phosphate buffer solution, pH 6.2	12	JPH382	100	ml
Phosphate buffer solution, pH 6.2	12	JPH382a	1000	ml
Phosphate buffer solution, pH 6.5	12	JPH383	100	ml
Phosphate buffer solution, pH 6.5	12	JPH383a	1000	ml
Phosphate buffer solution, pH 6.8	12	JPH384	100	ml
Phosphate buffer solution, pH 6.8	12	JPH384a	1000	ml
0.01 mol/l Phosphate buffer solution, pH 6.8	12	JPH385	100	ml
0.01 mol/l Phosphate buffer solution, pH 6.8	12	JPH385a	1000	ml
0.1 mol/l Phosphate buffer solution, pH 6.8	12	JPH386	100	ml
0.1 mol/l Phosphate buffer solution, pH 6.8	12	JPH386a	1000	ml
Phosphate buffer solution, pH 7.0	12	JPH387	100	ml
Phosphate buffer solution, pH 7.0	12	JPH387a	1000	ml
0.05 mol/l Phosphate buffer solution, pH 7.0	12	JPH388	100	ml
0.05 mol/l Phosphate buffer solution, pH 7.0	12	JPH388a	1000	ml
0.1 mol/l Phosphate buffer solution, pH 7.0	12	JPH389	100	ml
0.1 mol/l Phosphate buffer solution, pH 7.0	12	JPH389a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phosphate buffer solution, pH 7.2	12	JPH390	100	ml
Phosphate buffer solution, pH 7.2	12	JPH390a	1000	ml
Phosphate buffer solution, pH 7.4	12	JPH391	100	ml
Phosphate buffer solution, pH 7.4	12	JPH391a	1000	ml
0.03 mol/l Phosphate buffer solution, pH 7.5	12	JPH392	100	ml
0.03 mol/l Phosphate buffer solution, pH 7.5	12	JPH392a	1000	ml
Phosphate buffer solution, pH 8.0	12	JPH393	100	ml
Phosphate buffer solution, pH 8.0	12	JPH393a	1000	ml
0.1 mol/l Phosphate buffer solution for antibiotics, pH 8.0	12	JPH394	100	ml
0.1 mol/l Phosphate buffer solution for antibiotics, pH 8.0	12	JPH394a	1000	ml
0.02 mol/l Phosphate buffer solution, pH 8.0	12	JPH395	100	ml
0.02 mol/l Phosphate buffer solution, pH 8.0	12	JPH395a	1000	ml
0.1 mol/l Phosphate buffer solution, pH 8.0	12	JPH396	100	ml
0.1 mol/l Phosphate buffer solution, pH 8.0	12	JPH396a	1000	ml
0.2 mol/l Phosphate buffer solution, pH 10.5	12	JPH397	100	ml
0.2 mol/l Phosphate buffer solution, pH 10.5	12	JPH397a	1000	ml
Phosphate buffer solution, pH 12	12	JPH398	100	ml
Phosphate buffer solution, pH 12	12	JPH398a	1000	ml
Phosphate buffer solution for antibiotics, pH 6.5	12	JPH399	100	ml
Phosphate buffer solution for antibiotics, pH 6.5	12	JPH399a	1000	ml
Phosphate buffer solution for processed aconite root	12	JPH400	100	ml
Phosphate buffer solution for processed aconite root	12	JPH400a	1000	ml
Phosphate-buffered sodium chloride TS	12	JPH401	100	ml
Phosphate-buffered sodium chloride TS	12	JPH401a	1000	ml
0.01 mol/l Phosphate buffer-sodium chloride TS, pH 7.4	12	JPH402	100	ml
0.01 mol/l Phosphate buffer-sodium chloride TS, pH 7.4	12	JPH402a	1000	ml
Phosphate TS	12	JPH403	100	ml
Phosphate TS	12	JPH403a	1000	ml
Phosphoric acid-sodium sulfate buffer solution, pH 2.3	12	JPH404	100	ml
Phosphoric acid-sodium sulfate buffer solution, pH 2.3	12	JPH404a	1000	ml
Phosphoric acid-acetic acid-boric acid buffer solution, pH 2.0	12	JPH405	100	ml
Phosphoric acid-acetic acid-boric acid buffer solution, pH 2.0	12	JPH405a	1000	ml
Phosphotungstic acid TS	12	JPH406	100	ml
Phosphotungstic acid TS	12	JPH406a	500	ml
Potassium acetate TS	12	JPH407	100	ml
Potassium carbonate-sodium carbonate TS	12	JPH408	100	ml
Potassium chloride-hydrochloric acid buffer solution	12	JPH409	100	ml
Potassium chloride-hydrochloric acid buffer solution	12	JPH409a	1000	ml
Potassium chloride TS, acidic	12	JPH410	100	ml
Potassium chloride TS, acidic	12	JPH410a	1000	ml
Potassium chromate TS	12	JPH411	100	ml
Potassium dichromate-sulfuric acid TS	12	JPH412	100	ml
Potassium dichromate TS	24	JPH413	100	ml
Potassium dichromate TS	24	JPH413a	500	ml
0.02 mol/l Potassium dihydrogen phosphate TS	12	JPH414	100	ml
0.02 mol/l Potassium dihydrogen phosphate TS	12	JPH414a	1000	ml
0.05 mol/l Potassium dihydrogen phosphate TS	12	JPH415	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
0.05 mol/l Potassium dihydrogen phosphate TS	12	JPH415a	1000	ml
0.1 mol/l Potassium dihydrogen phosphate TS, pH 2.0	12	JPH416	100	ml
0.1 mol/l Potassium dihydrogen phosphate TS, pH 2.0	12	JPH416a	1000	ml
0.25 mol/l Potassium dihydrogen phosphate TS, pH 3.5	12	JPH417	100	ml
0.25 mol/l Potassium dihydrogen phosphate TS, pH 3.5	12	JPH417a	1000	ml
0.33 mol/l Potassium dihydrogen phosphate TS	12	JPH418	100	ml
0.33 mol/l Potassium dihydrogen phosphate TS	12	JPH418a	1000	ml
0.05 mol/l Potassium dihydrogen phosphate, pH 3.0	12	JPH419	100	ml
0.05 mol/l Potassium dihydrogen phosphate, pH 3.0	12	JPH419a	1000	ml
0.05 mol/l Potassium dihydrogen phosphate TS, pH 4.7	12	JPH420	100	ml
0.05 mol/l Potassium dihydrogen phosphate TS, pH 4.7	12	JPH420a	1000	ml
0.1 mol/l Potassium dihydrogen phosphate TS	12	JPH421	100	ml
0.1 mol/l Potassium dihydrogen phosphate TS	12	JPH421a	1000	ml
0.2 mol/l Potassium dihydrogen phosphate TS	12	JPH422	100	ml
0.2 mol/l Potassium dihydrogen phosphate TS	12	JPH422a	1000	ml
0.2 mol/l Potassium dihydrogen phosphate TS for buffer solution	12	JPH423	100	ml
0.2 mol/l Potassium dihydrogen phosphate TS for buffer solution	12	JPH423a	1000	ml
Potassium hexacyanoferrate (III) TS, alkaline	12	JPH424	100	ml
Potassium hexahydroxoantimonate (V) TS	12	JPH425	100	ml
Potassium hydrogen phthalate buffer solution, pH 3.5	12	JPH426	100	ml
Potassium hydrogen phthalate buffer solution, pH 3.5	12	JPH426a	1000	ml
Potassium hydrogen phthalate buffer solution, pH 4.6	12	JPH427	100	ml
Potassium hydrogen phthalate buffer solution, pH 4.6	12	JPH427a	1000	ml
0.3 mol/l Potassium hydrogen phthalate buffer solution, pH 4.6	12	JPH428	100	ml
0.3 mol/l Potassium hydrogen phthalate buffer solution, pH 4.6	12	JPH428a	1000	ml
Potassium hydrogen phthalate buffer solution, pH 5.6	12	JPH429	100	ml
Potassium hydrogen phthalate buffer solution, pH 5.6	12	JPH429a	1000	ml
0.2 mol/l Potassium hydrogen phthalate TS for buffer solution	12	JPH430	100	ml
0.2 mol/l Potassium hydrogen phthalate TS for buffer solution	12	JPH430a	1000	ml
Potassium hydroxide-ethanol TS, dilute	12	JPH431	100	ml
Potassium hydroxide-ethanol TS, dilute	12	JPH431a	1000	ml
Potassium hydroxide TS	12	JPH432	100	ml
Potassium hydroxide TS	12	JPH432a	1000	ml
8 mol/l Potassium hydroxide TS	12	JPH433	100	ml
8 mol/l Potassium hydroxide TS	12	JPH433a	500	ml
Potassium iodide-zinc sulfate TS	12	JPH434	100	ml
Potassium iodide-zinc sulfate TS	12	JPH434a	200	ml
Potassium periodate TS	12	JPH435	100	ml
Potassium periodate TS	12	JPH435a	1000	ml
Potassium permanganate TS	12	JPH436	1000	ml
Potassium permanganate TS, acidic	12	JPH437	500	ml
Potassium sulfate TS	12	JPH438	100	ml
Potassium sulfate TS	12	JPH438a	1000	ml
Potassium thiocyanate TS	12	JPH439	100	ml
Purifed water for ammonium limit test	12	JPH440	1000	ml
Pyridine, dehydrated	12	JPH441	100	ml
Pyrophosphate buffer solution, pH 9.0	12	JPH442	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
0.05 mol/l Pyrophosphate buffer solution, pH 9.0	6	JPH443	100	ml
Quinoline TS	6	JPH444	100	ml
Selenious acid-sulfuric acid TS	6	JPH445	30	ml
Silver chromate-saturated potassium chromate TS	6	JPH446	100	ml
Silver nitrate-ammonia TS	6	JPH447	30	ml
Silver nitrate-ammonia TS	6	JPH447a	100	ml
Silver nitrate TS	6	JPH448	100	ml
Silver nitrate TS	6	JPH448a	1000	ml
Sodium acetate-acetone TS	12	JPH449	100	ml
Sodium acetate-acetone TS	12	JPH449a	500	ml
Sodium acetate TS	12	JPH450	100	ml
Sodium carbonate TS	12	JPH451	100	ml
0.55 mol/l Sodium carbonate TS	12	JPH452	100	ml
Sodium chloride TS	12	JPH453	100	ml
0.1 mol/l Sodium chloride TS	12	JPH454	100	ml
0.1 mol/l Sodium chloride TS	12	JPH454a	1000	ml
1 mol/l Sodium chloride TS	12	JPH455	100	ml
1 mol/l Sodium chloride TS	12	JPH455a	1000	ml
2 mol/l Sodium dihydrogen phosphate TS	12	JPH456	100	ml
2 mol/l Sodium dihydrogen phosphate TS	12	JPH456a	1000	ml
Sodium dihydrogen phosphate TS, pH 2.5	12	JPH457	100	ml
Sodium dihydrogen phosphate TS, pH 2.5	12	JPH457a	1000	ml
0.05 mol/l Sodium dihydrogen phosphate TS	12	JPH458	100	ml
0.05 mol/l Sodium dihydrogen phosphate TS	12	JPH458a	1000	ml
0.1 mol/l Sodium dihydrogen phosphate TS	12	JPH459	100	ml
0.1 mol/l Sodium dihydrogen phosphate TS	12	JPH459a	1000	ml
0.05 mol/l Sodium dihydrogen phosphate TS, pH 2.6	12	JPH460	100	ml
0.05 mol/l Sodium dihydrogen phosphate TS, pH 2.6	12	JPH460a	1000	ml
0.05 mol/l Sodium dihydrogen phosphate TS, pH 3.0	12	JPH461	100	ml
0.05 mol/l Sodium dihydrogen phosphate TS, pH 3.0	12	JPH461a	1000	ml
0.1 mol/l Sodium dihydrogen phosphate TS, pH 3.0	12	JPH462	100	ml
0.1 mol/l Sodium dihydrogen phosphate TS, pH 3.0	12	JPH462a	1000	ml
Sodium disulfite TS	12	JPH463	100	ml
Sodium disulfite TS	12	JPH463a	1000	ml
Sodium hydrogen carbonate TS	12	JPH464	100	ml
Sodium hydrogen carbonate TS	12	JPH464a	1000	ml
Sodium hydroxide-dioxane TS	12	JPH465	100	ml
Sodium hydroxide-dioxane TS	12	JPH465a	50	ml
Sodium hydroxide TS	12	JPH466	100	ml
Sodium hydroxide TS	12	JPH466a	1000	ml
0.05 mol/l Sodium hydroxide TS	12	JPH467	100	ml
0.05 mol/l Sodium hydroxide TS	12	JPH467a	1000	ml
0.5 mol/l Sodium hydroxide TS	24	JPH468	100	ml
0.5 mol/l Sodium hydroxide TS	24	JPH468a	1000	ml
2 mol/l Sodium hydroxide TS	24	JPH469	100	ml
2 mol/l Sodium hydroxide TS	24	JPH469a	1000	ml
4 mol/l Sodium hydroxide TS	24	JPH470	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
4 mol/l Sodium hydroxide TS	24	JPH470a	1000	ml
6 mol/l Sodium hydroxide TS	24	JPH471	100	ml
6 mol/l Sodium hydroxide TS	24	JPH471a	1000	ml
8 mol/l Sodium hydroxide TS	24	JPH472	100	ml
8 mol/l Sodium hydroxide TS	24	JPH472a	1000	ml
Sodium lauryl sulfate TS	12	JPH473	100	ml
Sodium lauryl sulfate TS	12	JPH473a	1000	ml
0.2 mol/l Sodium lauryl sulfate TS	12	JPH474	100	ml
Sodium naphthoquinone sulfonate TS	12	JPH475	100	ml
Sodium periodate TS	12	JPH476	100	ml
Sodium periodate TS	12	JPH476a	1000	ml
Sodium phosphate TS	12	JPH477	100	ml
Sodium phosphate TS	12	JPH477a	1000	ml
0.1 mol/l Sodium phosphate buffer solution, pH 7.0	12	JPH478	100	ml
0.1 mol/l Sodium phosphate buffer solution, pH 7.0	12	JPH478a	1000	ml
Sodium salicylate-sodium hydroxide TS	12	JPH479	100	ml
Sodium sulfide TS	3	JPH480	100	ml
1 mol/l Sodium sulfite TS	12	JPH481	30	ml
1 mol/l Sodium sulfite TS	12	JPH481a	100	ml
Sodium tetraborate-calcium chloride buffer solution, pH 8.0	12	JPH482	100	ml
Sodium tetraborate-calcium chloride buffer solution, pH 8.0	12	JPH482a	1000	ml
Sodium thiosulfate TS	12	JPH483	100	ml
Sodium thiosulfate TS	12	JPH483a	1000	ml
Sulfosalicylic acid TS	12	JPH484	100	ml
Sulfosalicylic acid TS	12	JPH484a	1000	ml
Sulfuric acid, dilute	24	JPH485	100	ml
Sulfuric acid, dilute	24	JPH485a	1000	ml
Sulfuric acid-ethanol TS	24	JPH486	100	ml
Sulfuric acid-ethanol TS	24	JPH486a	1000	ml
Sulfuric acid-hexane-methanol TS	12	JPH487	100	ml
Sulfuric acid-methanol TS	12	JPH488	100	ml
Sulfuric acid-methanol TS, 0.05 mol/l	12	JPH489	100	ml
Sulfuric acid-methanol TS, 0.05 mol/l	12	JPH489a	1000	ml
Sulfuric acid-sodium dihydrogenphosphate TS	12	JPH490	100	ml
Sulfuric acid-sodium dihydrogenphosphate TS	12	JPH490a	1000	ml
Sulfuric acid-sodium hydroxide TS	12	JPH491	100	ml
Sulfuric acid-sodium hydroxide TS	12	JPH491a	1000	ml
Sulfuric acid TS	12	JPH492	100	ml
Sulfuric acid TS	12	JPH492a	1000	ml
0.05 mol/l Sulfuric acid TS	24	JPH493	1000	ml
0.25 mol/l Sulfuric acid TS	24	JPH494	1000	ml
0.5 mol/l Sulfurie acid TS	24	JPH495	1000	ml
2 mol/l Sulfuric acid TS	24	JPH496	1000	ml
Tartrate buffer solution, pH 3.0	12	JPH497	100	ml
Tartrate buffer solution, pH 3.0	12	JPH497a	1000	ml
0.005 mol/l Tetrabutylammonium hydroxide TS	12	JPH498	100	ml
0.005 mol/l Tetrabutylammonium hydroxide TS	12	JPH498a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Tetrabutylammonium hydroxide-methanol TS	12	JPH499	100	ml
Tetrabutylammonium hydroxide-methanol TS	12	JPH499a	1000	ml
10% Tetrabutylammonium hydroxide-methanol TS	12	JPH500	100	ml
10% Tetrabutylammonium hydroxide-methanol TS	12	JPH500a	1000	ml
Tetrahydroxyquinone indicator	12	JPH501	30	ml
Tetrahydroxyquinone indicator	12	JPH501a	100	ml
Tetramethylammonium hydroxide-methanol TS	12	JPH502	1000	ml
Tetramethylammonium hydroxide TS	12	JPH503	100	ml
Tetramethylammonium hydroxide TS, pH 5.5	12	JPH504	100	ml
Tetramethylammonium hydroxide TS, pH 5.5	12	JPH504a	1000	ml
Tetraphenylboron potassium TS	6	JPH505	100	ml
Thiourea TS	12	JPH506	100	ml
Thymol blue-N,N-dimethylformamide TS	12	JPH507	100	ml
Thymol blue TS	24	JPH508	100	ml
Thymolphthalein TS	24	JPH509	100	ml
Tin (II) chloride-sulfuric acid TS	12	JPH510	100	ml
Tin (II) chloride TS, acidic	3	JPH511	100	ml
Titanium (III) chloride-sulfuric acid TS	12	JPH512	100	ml
Titanium (IV) oxide TS	12	JPH513	100	ml
Trichloroacetic acid-gelatin-tris buffer solution	12	JPH514	100	ml
Trichloroacetic acid TS	12	JPH515	100	ml
Trichloroacetic acid TS for serrapeptase	12	JPH516	100	ml
Triethylamine buffer solution, pH 3.2	12	JPH517	100	ml
Triethylamine buffer solution, pH 3.2	12	JPH517a	1000	ml
Triethylamine-phosphate buffer solution, pH 5.0	12	JPH518	100	ml
Triethylamine-phosphate buffer solution, pH 5.0	12	JPH518a	1000	ml
Trifluoroacetic acid TS	24	JPH519	100	ml
Trifluoroacetic acid TS	24	JPH519a	500	ml
2,4,6-Trinitrophenol-ethanol TS	12	JPH520	100	ml
2,4,6-Trinitrophenol TS	12	JPH521	100	ml
Tris-acetic acid buffer solution, pH 6.5	12	JPH522	100	ml
Tris-acetic acid buffer solution, pH 6.5	12	JPH522a	1000	ml
0.5 mol/l Tris buffer solution, pH 6.8	12	JPH523	100	ml
0.5 mol/l Tris buffer solution, pH 6.8	12	JPH523a	1000	ml
Tris buffer solution, pH 7.0	12	JPH524	100	ml
Tris buffer solution, pH 7.0	12	JPH524a	1000	ml
0.05 mol/l Tris buffer solution, pH 7.0	12	JPH525	100	ml
0.05 mol/l Tris buffer solution, pH 7.0	12	JPH525a	1000	ml
0.1 mol/l Tris buffer solution, pH 8.0	12	JPH526	100	ml
0.1 mol/l Tris buffer solution, pH 8.0	12	JPH526a	1000	ml
Tris buffer solution, pH 8.2	12	JPH527	100	ml
Tris buffer solution, pH 8.2	12	JPH527a	1000	ml
Tris buffer solution, pH 8.4	12	JPH528	100	ml
Tris buffer solution, pH 8.4	12	JPH528a	1000	ml
0.05 mol/l Tris buffer solution, pH 8.6	12	JPH529	100	ml
0.05 mol/l Tris buffer solution, pH 8.6	12	JPH529a	1000	ml
Tris buffer solution, pH 8.8	12	JPH530	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Tris buffer solution, pH 8.8	12	JPH530a	1000	ml
Tris buffer solution, pH 9.5	12	JPH531	100	ml
Tris buffer solution, pH 9.5	12	JPH531a	1000	ml
0.2 mol/l Tris-hydrochloride buffer solution, pH 7.4	12	JPH532	100	ml
0.2 mol/l Tris-hydrochloride buffer solution, pH 7.4	12	JPH532a	1000	ml
0.05 mol/l Tris-hydrochloride buffer solution, pH 7.5	12	JPH533	100	ml
0.05 mol/l Tris-hydrochloride buffer solution, pH 7.5	12	JPH533a	1000	ml
Uranyl acetate TS	12	JPH534	30	ml
Uranyl acetate TS	12	JPH534a	100	ml
Uranyl acetate-zinc TS	12	JPH535	100	ml
Vanillin-sulfuric acid-ethanol TS	12	JPH536	100	ml
0.25 mol/l Zinc acetate buffer solution, pH 6.4	12	JPH537	100	ml
0.25 mol/l Zinc acetate buffer solution, pH 6.4	12	JPH537a	1000	ml
Zinc chloride TS	12	JPH538	100	ml
Zinc chloride TS	12	JPH538a	1000	ml
0.04 mol/l Zinc chloride TS	12	JPH539	100	ml
0.04 mol/l Zinc chloride TS	12	JPH539a	1000	ml
Zinc iodide-starch TS	12	JPH540	100	ml
Zinc sulfate TS	12	JPH541	100	ml
Zirconyl-alizarin red S TS	12	JPH542	30	ml

Indian Pharmacopoeia Products

Standard Buffer Solutions

Standard Buffer Solutions are solutions of standard pH. They are used for reference purposes in pH measurements and for carrying out many pharmacopoeial tests which require adjustments to or maintenance of a specified pH.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT	PRICE *EUR*	REF	VOLUME	UNIT
Boric Acid and Potassium Chloride, 0.2M	6	IP001	100	ml	29	IP001a	1000	ml
Disodium Hydrogen Phsophate, 0.2M	6	IP002	100	ml	29	IP002a	1000	ml
Hydrochloric Acid, 0.2M	6	IP003	100	ml	29	IP003a	1000	ml
Potassium Chloride, 0.2M	6	IP004	100	ml	29	IP004a	1000	ml
Potassium Dihydrogen Phosphate, 0.2M	6	IP005	100	ml	29	IP005a	1000	ml
Potassium Hydrogen Phthalate, 0.2M	6	IP006	100	ml	29	IP006a	1000	ml
Acetate Buffer pH 2.8	6	IP007	100	ml	29	IP007a	1000	ml
Acetate Buffer pH 3.4	6	IP008	100	ml	29	IP008a	1000	ml
Acetate Buffer pH 3.5	6	IP009	100	ml	29	IP009a	1000	ml
Acetate Buffer pH 3.7	6	IP010	100	ml	29	IP010a	1000	ml
Acetate Buffer pH 4.0	6	IP011	100	ml	29	IP011a	1000	ml
Acetate Buffer pH 4.4	6	IP012	100	ml	29	IP012a	1000	ml
Acetate Buffer pH 4.6	6	IP013	100	ml	29	IP013a	1000	ml
Acetate Buffer pH 4.7	6	IP014	100	ml	29	IP014a	1000	ml
Acetate Buffer pH 5.0	6	IP015	100	ml	29	IP015a	1000	ml
Acetate Buffer pH 5.5	6	IP016	100	ml	29	IP016a	1000	ml
Acetate Buffer pH 6.0	6	IP017	100	ml	29	IP017a	1000	ml
Acetate Buffer Solution	6	IP018	100	ml	29	IP018a	1000	ml
Acetic Acid-Ammonium Acetate Buffer	6	IP019	100	ml	29	IP019a	1000	ml
Acetic Ammonia Buffer pH 3.7, Ethanolic	6	IP020	100	ml	29	IP020a	1000	ml
Acetone Solution, Buffered	6	IP021	100	ml	44	IP021a	1000	ml
Ammonia - Ammonium Chloride Buffer	6	IP022	100	ml	29	IP022a	1000	ml
Ammonia Buffer pH 9.5	6	IP023	100	ml	29	IP023a	1000	ml
Ammonia Buffer pH 10.0	6	IP024	100	ml	29	IP024a	1000	ml
Barbitone Buffer pH 7.4	6	IP025	100	ml	44	IP025a	1000	ml
Barbitone Buffer pH 8.6, Mixed	6	IP026	100	ml	44	IP026a	1000	ml
Boric Buffer pH 9.0	6	IP027	100	ml	29	IP027a	1000	ml
Buffer Solution pH 2.5	6	IP028	100	ml	29	IP028a	1000	ml
Carbonate Buffer pH 9.7	6	IP029	100	ml	29	IP029a	1000	ml
Chloride Buffer pH 2.0	6	IP030	100	ml	29	IP030a	1000	ml
Citro-phosphate Buffer pH 5.0	6	IP031	100	ml	29	IP031a	1000	ml
Citro-phosphate Buffer pH 6.0	6	IP032	100	ml	29	IP032a	1000	ml
Citro-phosphate Buffer pH 7.0	6	IP033	100	ml	29	IP033a	1000	ml
Citro-phosphate Buffer pH 7.2	6	IP034	100	ml	29	IP034a	1000	ml
Citro-phosphate Buffer pH 7.6	6	IP035	100	ml	29	IP035a	1000	ml
Cupric Sulphate Solution pH 4.0 Buffered	6	IP036	100	ml	29	IP036a	1000	ml
Diethanolamine Buffer pH 10.0	6	IP037	100	ml	44	IP037a	1000	ml
Glycine Buffer pH 11.3	6	IP038	100	ml	40	IP038a	1000	ml
Glycine Buffer Solution	6	IP039	100	ml	61	IP039a	500	ml
Imidazole Buffer pH 6.5	6	IP040	100	ml	29	IP040a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT	PRICE *EUR*	REF	VOLUME	UNIT
Palladium Chloride Solution, Buffered	6	IP041	100	ml	61			
Phosphate Buffer pH 2.0	6	IP042	100	ml	29	IP042a	1000	ml
Phosphate Buffer pH 2.5	6	IP043	100	ml	29	IP043a	1000	ml
Phosphate Buffer pH 3.6	6	IP044	100	ml	29	IP044a	1000	ml
Phosphate Buffer pH 4.0, Mixed	6	IP045	100	ml	29	IP045a	1000	ml
Phosphate Buffer pH 4.9	6	IP046	100	ml	29	IP046a	1000	ml
Phosphate Buffer pH 5.0	6	IP047	100	ml	29	IP047a	1000	ml
Phsophate Buffer pH 5.5, Mixed	6	IP048	100	ml	29	IP048a	1000	ml
Phosphate Buffer pH 6.5	6	IP049	100	ml	29	IP049a	1000	ml
Phosphate Buffer pH 6.8, Mixed	6	IP050	100	ml	29	IP050a	1000	ml
Phosphate Buffer pH 7.0 and Mixed	6	IP051	100	ml	29	IP051a	1000	ml
Phosphate Buffer pH 7.0 with Azide, Mixed	6	IP052	100	ml	35	IP052a	1000	ml
Phosphate Buffer pH 7.0,0.067M Mixed	6	IP053	100	ml	29	IP053a	1000	ml
Phosphate Buffer pH 7.5, 0.33M Mixed	6	IP054	100	ml	29	IP054a	1000	ml
Phosphate Buffer pH 8.0, 0.02M	6	IP055	100	ml	29	IP055a	1000	ml
Phosphate Buffer, 0.025M Standard	6	IP056	100	ml	29	IP056a	1000	ml
Saline, Phosphate-buffered	6	IP057	100	ml	29	IP057a	1000	ml
Saline pH 6.4, Phosphate-buffered	6	IP058	100	ml	29	IP058a	1000	ml
Saline pH 7.4, Phosphate-buffered	6	IP059	100	ml	29	IP059a	1000	ml

General reagents

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetic Acid, xM		IP060	1000	ml
Acetic Acid, Dilute	24	IP061	100	ml
Acetic Acid Sp. ,Dilute	24	IP062	100	ml
Acetic Acid Sp. ,Dilute	24	IP062a	1000	ml
Acetic Anhydride-Dioxan Solution	12	IP063	50	ml
Aluminium Chloride Solution	12	IP064	100	ml
Aminohydroxynaphthalenesulphonic Acid Solution	12	IP065	100	ml
Ammonia, xM		IP066	1000	ml
Ammonia – Ammonium Chloride Solution, Strong	12	IP067	100	ml
Ammonia – Ammonium Chloride Solution, Strong	12	IP061a	1000	ml
Ammonia – Cyanide Solution Sp	12	IP068	100	ml
Ammonia –Cyanide Wash Solution	12	IP069	100	ml
Ammonia, xM Ethanolic		IP070	1000	ml
Ammonia, xM Methanolic		IP071	1000	ml
Ammonia Solution, Dilute	12	IP072	1000	ml
Ammonia, 18M	12	IP073	1000	ml
Ammonia Solution Sp., Dilute	12	IP074	100	ml
Ammonia Solution, Iron-free	12	IP075	100	ml
Ammonium Acetate, 0.1M	12	IP076	1000	ml
Ammonium Carbonate, 2M	12	IP077	1000	ml
Ammonium Carbonate Solution	12	IP078	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium Chloride, 2M	12	IP079	1000	ml
Ammonium Chloride – Ammonium Hydroxide Solution	12	IP080	100	ml
Ammonium Chloride Solution	12	IP081	100	ml
Ammonium Chloride Solution (Nessler's)	12	IP082	1000	ml
Ammonium Citrate Solution	12	IP083	1000	ml
Ammonium Citrate Solution, Alkaline	12	IP084	100	ml
Ammonium Citrate Solution, Alkaline	12	IP084a	250	ml
Ammonium Citrate Solution Sp	12	IP085	100	ml
Ammonium Mercurithiocyanate Solution	12	IP086	100	ml
Ammonium Molybdate Solution	12	IP087	100	ml
Ammonium Molybdate Solution	12	IP087a	1000	ml
Ammonium Molybdate Solution, Ethanolic (A+B)	12	IP088	50 + 200	ml
Ammonium Molybdate – Sulphuric Acid Solution	12	IP089	100	ml
Ammonium Nitrate, 0.007M	12	IP090	1000	ml
Ammonium Oxalate, 0.1M	12	IP091	1000	ml
Ammonium Oxalate Solution	12	IP092	100	ml
Ammonium Oxalate Solution	12	IP092a	1000	ml
Ammonium Phosphate, Dibasic, 0.2M	12	IP093	1000	ml
Ammonium Thiocyanate, xM		IP094	1000	ml
Ammonium Thiocyanate Solution	12	IP095	100	ml
Ammonium Thiocyanate Solution	12	IP095a	1000	ml
Ammonium Thioglycollate Solution	12	IP096	100	ml
Ammonium Thioglycollate Solution	12	IP096a	500	ml
Anisaldehyde Solution	12	IP097	100	ml
Anisaldehyde Solution, Ethanolic	12	IP098	100	ml
Antimony Trichloride Reagent (Solution I)	12	IP099	100	ml
Antimony Trichloride Reagent (Solution I)	12	IP099a	500	ml
Antimony Trichloride Solution	12	IP100	100	ml
Antimony Trichloride Solution	12	IP100a	500	ml
Barium Chloride Solution	12	IP101	100	ml
Barium Chloride Solution	12	IP101a	1000	ml
Barium Hydroxide, 0.1M	24	IP102	1000	ml
Barium Hydroxide Solution	24	IP103	1000	ml
Blue Tetrazolium Solution	12	IP104	100	ml
Borax, 0.2 M	12	IP105	1000	ml
Boric Acid Solution	12	IP106	250	ml
Bromine, 0.0167M	12	IP107	1000	ml
Bromine Solution	12	IP108	100	ml
Bromine Solution, Acetic	12	IP109	1000	ml
Bromine Water	3	IP110	100	ml
Bromine Water	3	IP110a	50	ml
Cadmium Iodide Solution	12	IP111	100	ml
Calcium Chloride,xM		IP112	1000	ml
Calcium Chloride Solution	12	IP113	100	ml
Calcium Chloride Solution	12	IP113a	1000	ml
Cerous Nitrate Solution	12	IP114	1000	ml
Chloral Hydrate Solution	12	IP115	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Chloroform Water	12	IP116	1000	ml
Chromic Acid Solution	12	IP117	1000	ml
Chromotropic Acid Solution	12	IP118	100	ml
Citric Acid,0.1 M	12	IP119	1000	ml
Citric-Molybdic Acid Solution	12	IP120	1000	ml
Cobalt Chloride Solution	12	IP121	100	ml
Cobalt Thiocyanate Solution	12	IP122	100	ml
Copper Solution, Alkaline (Solution I)	12	IP123	1000	ml
Copper Solution, Alkaline (Solution II)	12	IP124	100	ml
Cupric Chloride-Pyridine Reagent	12	IP125	100	ml
Cupri-Citric Solution	12	IP126	100	ml
Cupri-Citric Solution	12	IP126a	1000	ml
Cupric Sulphate 0.02 M	12	IP127	1000	ml
Cupric Sulphate Solution	12	IP128	1000	ml
Cupric Sulphate Solution, Weak	12	IP129	1000	ml
Cupri-Tartaric Solution (I+II)	12	IP130	500 + 500	ml
Diazobenzenesulphonic Acid Solution	12	IP131	100	ml
Dichloroacetic Acid Solution	12	IP132	500	ml
Digoxin Reagent	12	IP133	100	ml
Dimethylaminobenzaldehyde Solution, Ethanolic	12	IP134	250	ml
Dimethylformamide Solution (5% v/v)	12	IP135	100	ml
N,N-Dimethyl-p-phenylenediamine Sulphate Solution	12	IP136	100	ml
Dinitrobenzene Solution	12	IP137	100	ml
Dinitrobenzene Solution	12	IP137a	1000	ml
Dinitrobenzoic Acid Solution	12	IP138	100	ml
Dinitrobenzoic Acid Solution	12	IP138a	1000	ml
Diphenylamine Solution	12	IP139	100	ml
Diphenylcarbazone Mercuric Reagent (I+II)	12	IP140	100 + 100	ml
Dipotassium Hydrogen Phosphate, 0.1M	12	IP141	1000	ml
Disodium Edetate, xM		IP142	1000	ml
Disodium Hydrogen Phosphate xM		IP143	1000	ml
Disodium Hydrogen Phosphate Solution	12	IP144	100	ml
Ethanol 90% (v/v)	24	IP145	1000	ml
Ethanol 80% (v/v)	24	IP146	1000	ml
Ethanol 75% (v/v)	24	IP147	1000	ml
Ethanol 70% (v/v)	24	IP148	1000	ml
Ethanol 60% (v/v)	24	IP149	1000	ml
Ethanol 50% (v/v)	24	IP150	1000	ml
Ethanol 40% (v/v)	24	IP151	1000	ml
Ethanol 25% (v/v)	24	IP152	1000	ml
Ethanol 20% (v/v)	24	IP153	1000	ml
Ethanol, aldehyde-free	12	IP154	1000	ml
Ferric Ammonium Sulphate Solution	12	IP155	100	ml
Ferric Ammonium Sulphate Solution	12	IP155a	1000	ml
Ferric Ammonium Sulphate Solution, Acid	12	IP156	100	ml
Ferric Chloride-Ferricyanide-Arsenite Solution (I+II+III)	12	IP157	500+500+100	ml
Ferric Chloride Solution	12	IP158	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ferric Chloride Solution	12	IP158a	1000	ml
Ferric Chloride Test Solution	12	IP159	100	ml
Ferric Chloride Test Solution	12	IP159a	1000	ml
Formic Acid, 15M	12	IP160	100	ml
Hydrazine-molybdate Reagent	12	IP161	100	ml
Hydrazine Reducing Mixture	12	IP162	30	ml
Hydrochloric Acid, *x*M		IP163	1000	ml
Hydrochloric Acid, Dilute	24	IP164	1000	ml
Hydrochloric Acid, *x*M Methanolic		IP165	1000	ml
Hydrochloric Acid AsT, Stannated	24	IP166	100	ml
Hydrochloric Acid AsT, Stannated	24	IP166a	1000	ml
Hydroxylamine Hydrochloride Reagent	12	IP167	1000	ml
Hydroxylamine Hydrochloride Solution	12	IP168	100	ml
Hydroxylamine Hydrochloride Solution Sp	12	IP169	100	ml
Hydroxylamine Solution, Ethanolic (90%)	12	IP170	100	ml
Hypophosphorus Reagent	12	IP171	100	ml
Imidazole-Mercury Reagent	12	IP172	100	ml
Imidazole Solution	12	IP173	100	ml
Indigo Carmine Solution	12	IP174	100	ml
Indigo Carmine Solution	12	IP174a	1000	ml
Iodine, *x*M		IP175	1000	ml
Iodine bromide solution	12	IP176	1000	ml
Iodine Solution	12	IP177	100	ml
Iodine Solution	12	IP177a	500	ml
Lanthanum Nitrate Solution	12	IP178	100	ml
Lanthanum Nitrate Solution	12	IP178a	1000	ml
Lead Acetate Cotton	12	IP179	10	ml
Lead Acetate Solution	6	IP180	1000	ml
Lead Nitrate Solution	12	IP181	1000	ml
Lead Nitrate Stock Solution	12	IP182	1000	ml
Lead Subacetate Solution	12	IP183	100	ml
Lithium Perchlorate, 0.1 M	12	IP184	1000	ml
Magenta Solution, Decolorised	12	IP185	100	ml
Magnesium Sulphate Solution, Ammoniacal	12	IP186	100	ml
Mercuric Acetate Solution	6	IP187	100	ml
Mercuric Bromide Solution, ethanolic	12	IP188	100	ml
Mercuric Chloride, 0.2 M	12	IP189	1000	ml
Mercuric Chloride Solution	12	IP190	100	ml
Mercuric Sulphate Solution	12	IP191	100	ml
Methanesulphonic Acid, 2 M Methanolic	12	IP192	1000	ml
Methanol, Aldehyde-free	12	IP193	1000	ml
Naphthalenediol Reagent Solution	6	IP194	100	ml
Ninhydrin Solution	12	IP195	100	ml
Ninhydrin Solution, Ethanolic	12	IP196	100	ml
Nitric Acid, *x*M		IP197	1000	ml
Nitric Acid, Dilute	24	IP198	100	ml
4-Nitrobenzyl Chloride Solution	12	IP199	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Pararosaniline Solution, Decolorised	12	IP200	100	ml
Perchloric Acid, xM		IP201	1000	ml
Periodic-Acetic Acids Solution	12	IP202	100	ml
Phenanthroline Solution	12	IP203	100	ml
Phenol Reagent	12	IP204	100	ml
Phosphomolybdic Acid Reagent	12	IP205	100	ml
Phosphomolybdic Acid Reagent	12	IP205a	500	ml
Phosphoric Acid, xM		IP206	1000	ml
Phosphoric Acid, Dilute	12	IP207	100	ml
Phosphotungstic Acid Solution	12	IP208	100	ml
Phosphotungstic Acid Solution	12	IP208a	500	ml
Picric Acid Solution	12	IP209	100	ml
Potassium Bromate, 0.0167 M	12	IP210	1000	ml
Potassium Bromate, 0.0333 M	12	IP211	1000	ml
Potassium Bromide, 0.001 M	12	IP212	1000	ml
Potassium Carbonate, 2 M	12	IP213	1000	ml
Potassium Chromate Solution	12	IP214	100	ml
Potassium Cupri-Tartrate Solution	12	IP215	500 + 500	ml
Potassium Cyanide Solution	12	IP216	100	ml
Potassium Cyanide Solution Sp	12	IP217	100	ml
Potassium Dichromate Solution	12	IP218	1000	ml
Potassium Dichromate Solution, Dilute	12	IP219	1000	ml
Potassium Dichromate Solution UV(2x10 ml Potassium Dichromate Solution for Absorbance Control at 430 nm and 6x10 ml blank)	12	IP220	80	ml
Potassium Dihydrogen Phosphate, xM		IP221	1000	ml
Potassium Ferrocyanide Solution	6	IP222	100	ml
Potassium Hydrogen Phthalate, xM		IP223	1000	ml
Potassium Hydroxide, xM		IP224	1000	ml
Potassium Hydroxide Solution	12	IP225	100	ml
Potassium Iodate, xM		IP226	1000	ml
Potassium Iodate Solution	12	IP227	100	ml
Potassium Iodate Solution	12	IP227a	1000	ml
Potassium Iodide, 1M	12	IP228	100	ml
Potassium Iodide, 1M	12	IP228a	1000	ml
Potassium Iodide Solution	12	IP229	100	ml
Potassium Iodide Solution	12	IP229a	1000	ml
Potassium Iodide Solution, Dilute	12	IP230	100	ml
Potassium Iodide Solution, Dilute	12	IP230a	1000	ml
Potassium Iodide Solution, Iodinated	12	IP231	100	ml
Potassium Iodobismuthate Solution	6	IP232	500	ml
Potassium Iodobismuthate Solution, Acetic	3	IP233	100	ml
Potassium Iodobismuthate Solution, Dilute	6	IP234	500	ml
Potassium Iodoplatinate solution	12	IP235	10	ml
Potassium Mercuri-Iodide Solution	12	IP236	100	ml
Potassium Mercuri-Iodide Solution, Alkaline	12	IP237	500	ml
Potassium Permanganate, xM		IP238	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium Permanganate-Phosphoric Acid Solution	12	IP239	100	ml
Potassium Permanganate-Phosphoric Acid Solution	12	IP239a	1000	ml
Potassium Permanganate Solution	12	IP240	100	ml
Potassium Permanganate Solution	12	IP240a	1000	ml
Potassium Permanganate Solution, Dilute	12	IP241	100	ml
Potassium Permanganate Solution, Dilute	12	IP241a	1000	ml
Potassium Thiocyanate Solution	12	IP242	100	ml
Potassium Thiocyanate Solution	12	IP242a	1000	ml
Pyridine, Anhydrous	12	IP243	100	ml
Quinoline Solution	6	IP244	100	ml
Semicarbazide Acetate Solution	12	IP245	100	ml
Silver Nitrate, *x*M		IP246	1000	ml
Silver Nitrate Solution	24	IP247	100	ml
Silver Nitrate-Pyridine Reagent	12	IP248	100	ml
Sodium Arsenite, 0.1 M:	12	IP249	1000	ml
Sodium Arsenite Solution	12	IP250	100	ml
Sodium Bicarbonate, xM		IP251	1000	ml
Sodium Bicarbonate Solution	12	IP252	1000	ml
Sodium Butanesulphonate, xM		IP253	1000	ml
Sodium Carbonate, xM		IP254	1000	ml
Sodium Carbonate Solution	12	IP255	100	ml
Sodium Carbonate Solution	12	IP255a	1000	ml
Sodium Carbonate Solution, Dilute	12	IP256	100	ml
Sodium Carbonate Solution, Dilute	12	IP256a	1000	ml
Sodium Cobaltinitrite Solution	12	IP257	100	ml
Sodium 1 Decasulphonate Solution	12	IP258	100	ml
Sodium Dihydrogen Phosphate, xM		IP259	1000	ml
Sodium Heptanesulphonate	12	IP260	100	ml
Sodium Hexanesulphonate, 0.03M	12	IP261	1000	ml
Sodium Hydroxide, xM		IP262	1000	ml
Sodium Hydroxide, xM Ethanolic		IP263	1000	ml
Sodium Hydroxide Solution	12	IP264	100	ml
Sodium Hydroxide Solution, Dilute	12	IP265	100	ml
Sodium Hydroxide Solution, Dilute	12	IP265a	1000	ml
Sodium Hypobromite Solution, Alkaline	6	IP266	100	ml
Sodium Lauryl Sulphate, xM		IP267	1000	ml
Sodium Molybdotungstophosphate solution	12	IP268	100	ml
Sodium Molybdotungstophosphate solution	12	IP268a	500	ml
Sodium Nitroprusside Carbonate Solution	6	IP269	100	ml
Sodium Octanesulphonate, 0.02M	12	IP270	1000	ml
Sodium Phosphate Solution	12	IP271	100	ml
Sodium Phosphate Solution	12	IP271a	1000	ml
Sodium Sulphide Solution	12	IP272	100	ml
Sodium Thiosulphate,xM		IP273	1000	ml
Stannous Chloride Solution	12	IP274	100	ml
Stannous Chloride Solution	12	IP274a	1000	ml
Stannous Chloride Solution AsT	12	IP275	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Stannous Chloride Solution AsT	12	IP275a	1000	ml
Startch Iodide Solution	6	IP276	100	ml
Starch Solution	6	IP277	100	ml
Sulphomolybdic Acid Solution	18	IP279	100	ml
Sulphomolybdic Acid Solution	18	IP279a	500	ml
Sulphuric Acid, xM		IP280	1000	ml
Sulphuric Acid, x%		IP281	1000	ml
Sulphuric Acid, Dilute	24	IP282	100	ml
Sulphuric Acid, Dilute	24	IP282a	1000	ml
Sulphuric Acid, xM Ethanolic		IP283	1000	ml
Sulphuric Acid, x% Ethanolic		IP284	1000	ml
Sulphuric Acid-Formaldehyde Reagent	12	IP285	100	ml
Sulphuric Acid, xM Methanolic		IP286	1000	ml
Sulphuric Acid, x% Methanolic		IP287	1000	ml
Thiocetamide Solution	12	IP288	1000	ml
Trichloroacetic Acid Solution	12	IP289	100	ml
Wash Solution pH 2.5	12	IP290	500	ml
Water,Ammonia-free	12	IP291	1000	ml
Water, Carbon Dioxide-free	12	IP292	1000	ml
Zinc and Sodium Carbonate Reagent	12	IP293	30	ml
Zinc Chloride-Formic Acid solution	12	IP294	100	ml
Zinc Chloride Solution, Iodinated	12	IP295	100	ml
Zinc Sulphate, xM		IP296	1000	ml
Zinc Sulphate Solution	6	IP297	100	ml
Zirconyl Nitrate Solution	12	IP298	100	ml

Indicators and indicators test papers

In the test and assays of the Pharmacopoeia, indicators are required to indicate the completion of a chemical reaction in volumetric analysis or to indicate the pH of solutions.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Alizarin Red S Solution	12	IP299	100	ml
Brilliant Green Solution	12	IP300	100	ml
Bromocresol Green Solution	24	IP301	100	ml
Bromocresol Purple Solution	24	IP302	100	ml
Bromophenol Blue Solution	24	IP303	100	ml
Bromothymol Blue Solution	12	IP304	100	ml
Calcon Mixture	24	IP305	100	ml
Cresol Red Solution	12	IP306	100	ml
Crystal Violet Solution	12	IP307	100	ml
Dimethyl Yellow Solution	12	IP308	100	ml
Eosin Solution	12	IP309	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Eriochrome Black T Mixture	24	IP310	100	ml
Ferroin Solution	24	IP311	100	ml
Litmus Solution	12	IP312	250	ml
Metanil Yellow Solution	12	IP313	100	ml
Methyl Orange Solution	24	IP314	100	ml
Methyl Red-Methylene Blue Solution	12	IP315	100	ml
Methyl Red Solution	18	IP316	100	ml
Methylene Blue Solution	12	IP317	100	ml
1-Naphtholbenzein Solution	12	IP318	100	ml
Neutral Red Solution	12	IP319	100	ml
Nile Blue A Solution	12	IP320	100	ml
Phenol Red Solution	12	IP321	100	ml
Phenolphthalein Solution	24	IP322	100	ml
Phenolphthalein Solution, Dilute	12	IP323	100	ml
Phenolphthalein-Thymol Blue Solution (A+B)	12	IP324	(100+150)	ml
Pyridylazonaphthol Solution	12	IP325	100	ml
Quinaldine Red Solution	12	IP326	100	ml
Ruthenium Red Solution	12	IP327	100	ml
Thymol Blue Solution	24	IP328	100	ml
Thymol Blue Solution, Ethanolic	12	IP329	100	ml
Thymolphthalein Solution	24	IP330	100	ml
Titan Yellow Solution	12	IP331	100	ml
Xylenol Orange Mixture	12	IP332	50	ml
Lead Acetate Paper	12	IP333	pack of 50	
Mercuric Chloride Paper	12	IP334	pack of 50	
Starch Iodate Paper	12	IP335	pack of 50	
Starch Iodide Paper	12	IP336	pack of 50	
Titan Yellow Paper	12	IP337	pack of 50	

Standard solutions

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetaldehyde Standard Solution (100 ppm C_2H_4O)	12	IP338	100	ml
Aluminium Standard Solution concentrate (0.176% w/v aluminium potassium sulphate)	12	IP339	100	ml
Aluminium Standard Solution concentrate (1.39% w/v aluminium nitrate)	12	IP340	100	ml
Arsenic Standard Solution concentrate (1000 ppm As)	12	IP341	100	ml
Barium Standard Solution concentate (0.178% w/v barium chloride)	12	IP342	100	ml
Cadmium Standard Solution concentrate (0.228% w/v cadmium sulphate)	12	IP343	100	ml
Calcium Standard Solution concentrate (1000 ppm Ca)	12	IP344	100	ml
Calcium Standard Solution concentrate (1000 ppm Ca), Ethanolic	12	IP345	100	ml
Chloride Standard Solution concentrate (0.0824% w/v sodium chloride)	12	IP346	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Copper Standard Solution concentrate (1.965 g/l cupric sulphate)	12	IP347	100	ml
Copper Standard Solution concentrate (0.393% w/v cupric sulphate)	12	IP348	100	ml
Formaldehyde Standard Solution concentrate (3.0 g/l formaldehyde)	12	IP349	100	ml
Iron Standard Solution concentrate (0.1726% w/v ferric ammonium sulphate)	12	IP350	100	ml
Iron Standard Solution concentrate (7.022 g/l ferrous ammonium sulphate)	12	IP351	100	ml
Lead Standard Solution (0.1% Pb)	12	IP352	100	ml
Nickel Standard Solution concentrate (1000 ppm Ni)	12	IP353	100	ml
Nitrate Standard Solution concentrate (0.163% w/v potassium nitrate)	12	IP354	100	ml
Phosphate Standard Solution concentrate (0.143% w/v potassium dihydrogen phosphate)	12	IP355	100	ml
Silver Standard Solution concentrate (0.079% w/v silver nitrate)	12	IP356	100	ml
Sulphate Standard Solution concentrate (0.181% w/v potassium sulphate)	12	IP357	100	ml
Sulphate Standard Solution concentrate, Ethanolic (0.181% w/v potassium sulphate in ethanol (30%))	12	IP358	100	ml
Tin Standard Solution concentrate (0.500 g/l tin)	12	IP359	100	ml
Zinc Standard Solution (100 ppm Zn)	12	IP360	100	ml

Volumetric reagents and solutions

Volumetric solutions, also known as standard solutions, are solutions of reagents of known concentrations intended primarily for use in quantitative determinations. Concentrations are usually expressed in terms of *molarity (M)*.

Molar Solutions

A molar solution contains 1g molecule of the reagent in 1000 ml of the solution. Solutions containing one-tenth of a gram-molecule of the reagent in 1000 ml are designated as 'tenth-molar' or 0.1 M; other molarities are similarly indicated.

Preparation and Standardisation of Volumetric Solutions

It is not always possible nor is it essential, to prepare volumetric solutions of a desired theoretical molarity. A solution of approximately the desired molarity is prepared and standardised by titration against a solution of a primary standard. The molarity factor so obtained is used in all calculations, where such standardised solutions are employed. The molarity of Volumetric solutions is determined with a precision of 0.2%.

The water used in preparing volumetric solutions complies with the requirements of the monograph on Purified Water, unless otherwise specified.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium Thiocyanate, 0.1M	12	IP361	1000	ml
Barium Chloride, 0.05M	12	IP362	1000	ml
Benzethonium Chloride, 0.004M	12	IP363	1000	ml
Bromine, 0.05M	12	IP364	1000	ml
Ceric Ammonium Nitrate, 0.1 M	12	IP365	1000	ml
Ceric Ammonium Sulphate, 0.1M	12	IP366	1000	ml
Cupric Sulphate, 0.02M	12	IP367	1000	ml
Dioctyl Sodium Sulphosuccinate, 0.0005M	12	IP368	100	ml
Disodium Edetate, 0.1M	24	IP369	1000	ml
Ferric Ammonium Sulphate, 0.1M	24	IP370	1000	ml
Ferrous Ammonium Sulphate, 0.1 M	12	IP371	1000	ml
Hydrochloric Acid, 1M	24	IP372	1000	ml
Hydrochloric Acid, 0.05 M Methanolic	24	IP373	1000	ml
Iodine, 0.05 M	12	IP374	1000	ml
Lead Nitrate, 0.1 M	24	IP375	1000	ml
Magnesium Sulphate, 0.05 M	12	IP376	1000	ml
Mercuric Nitrate, 0.02M	12	IP377	1000	ml
Nitric Acid, 1M	12	IP378	1000	ml
Perchloric Acid, 0.1 M	12	IP379	1000	ml
Potassium Dichromate, 0.0167 M	12	IP380	1000	ml
Potassium Hydrogen Phthalate, 0.05 M	12	IP381	1000	ml
Potassium Hydroxide, 0.1 M	12	IP382	1000	ml
Potassium Hydroxide, 0.1 M Ethanolic	12	IP383	1000	ml
Potassium Hydroxide in ethanol (60%), 0.5 M	12	IP384	1000	ml
Potassium Iodate, 0.05 M	12	IP385	1000	ml
Potassium Permanganate, 0.02 M	12	IP386	1000	ml
Silver Nitrate, 0.1 M	24	IP387	1000	ml
Sodium Hydroxide, 1M	12	IP388	1000	ml
Sodium Hydroxide, 0.1 M Ethanolic	12	IP389	1000	ml
Sodium Methoxide, 0.1 M	12	IP390	1000	ml
Sodium Nitrite, 0.1 M	12	IP391	1000	ml
Sodium Thiosulphate, 0.1M	12	IP392	1000	ml
Sulphuric Acid, 0.5M	24	IP393	1000	ml
Sulphuric Acid, 0.25M Ethanolic	24	IP394	1000	ml
Tetrabutylammonium Hydroxide, 0.1M	12	IP395	100	ml
Zinc Chloride, 0.1M	24	IP396	1000	ml
Zinc Sulphate, 0.1M	24	IP397	1000	ml

Primary Standards

These are materials which, after drying under the specified conditions, are recommended for use as primary standards in the standardisation of volumetric solutions. The following are recommended for use as primary standards.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Benzoic Acid	36	IP398	100	g
Potassium Bromate	36	IP399	50	g
Potassium Dichromate	36	IP400	50	g
Potassium Hydrogen Phthalate	36	IP401	50	g
Potassium Iodate	36	IP402	50	g
Sodium Carbonate, Anhydrous	36	IP403	50	g
Sodium Chloride	36	IP404	250	g
Sulphanilic Acid	36	IP405	100	g
Zinc, Granulated	36	IP406	100	g

International Pharmacopoeia Products

The International Pharmacopoeia (Ph. Int.) constitutes a collection of recommended procedures for analysis and specifications for the determination of pharmaceutical substances, excipients, and dosage forms that is intended to serve as source material for reference or adaptation by any WHO Member State wishing to establish pharmaceutical requirements.

The test solutions and volumetric solutions mentioned in the International Pharmacopoeia, are described below. The test solutions are denoted by the abbreviation TS, and the volumetric solutions, or solutions that are similarly standardized, by the abbreviation VS. The concentrations are expressed in conformity with the Systume international d'Unit(c)s (SI) and they refer to the anhydrous substance.

Unless otherwise specified, all solutions indicated in the tests and assays of the International Pharmacopoeia are prepared with water R.

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Acetate buffer, pH 3.0, TS	12	INP001	100	ml
Acetate buffer, pH 3.0, TS	12	INP001a	1000	ml
Acetate buffer, pH 4.5, TS	12	INP002	100	ml
Acetate buffer, pH 4.5, TS	12	INP002a	1000	ml
Acetate buffer, pH 4.6, TS	12	INP003	100	ml
Acetate buffer, pH 4.6, TS	12	INP003a	1000	ml
Acetate buffer, pH 4.7, TS	12	INP004	100	ml
Acetate buffer, pH 4.7, TS	12	INP004a	1000	ml
Acetate buffer, pH 5.0, TS	12	INP005	100	ml
Acetate buffer, pH 5.0, TS	12	INP005a	1000	ml
Acetate buffer, pH 5.5, TS	12	INP006	100	ml
Acetate buffer, pH 5.5, TS	12	INP006a	1000	ml
Acetate buffer, pH 6.0, TS	12	INP007	100	ml
Acetate buffer, pH 6.0, TS	12	INP007a	1000	ml
Acetate standard buffer TS	12	INP008	100	ml
Acetate standard buffer TS	12	INP008a	1000	ml
Acetic acid (~90 g/l) TS	24	INP009	100	ml
Acetic acid (~90 g/l) TS	24	INP009a	1000	ml
Acetic acid (~120 g/l) TS	24	INP010	100	ml
Acetic acid (~120 g/l) TS	24	INP010a	1000	ml
Acetic acid (~300 g/l) TS	24	INP011	100	ml
Acetic acid (~300 g/l) TS	24	INP011a	1000	ml
Acetic acid (~60 g/l) PbTS	24	INP012	100	ml
Acetic acid (~60 g/l) PbTS	24	INP012a	1000	ml
Acetic acid (~60 g/l) TS	24	INP013	100	ml
Acetic acid (~60 g/l) TS	24	INP013a	1000	ml
Acetic acid (0.07 mol/l) VS	24	INP014	100	ml
Acetic acid (0.07 mol/l) VS	24	INP014a	1000	ml
Acetic acid (5.0 g/l) TS	24	INP015	100	ml
Acetic acid (5.0 g/l) TS	24	INP015a	1000	ml
Acetic anhydride/dioxan TS		INP016	100	ml
Acetonitrile (400 g/l) TS	24	INP017	100	ml
Aluminium chloride TS	24	INP018	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Aluminium standard (2 ppm Al) TS, 100 times concentrated	12	INP019	100	ml
Aluminium standard (10 µg Al/ml) TS	12	INP020	100	ml
4-Aminoantipyrine TS1	12	INP021	30	ml
Ammonia (~100 g/l) FeTS	12	INP022	100	ml
Ammonia (~100 g/l) PbTS	12	INP023	100	ml
Ammonia (~100 g/l) TS	12	INP024	100	ml
Ammonia (~17 g/l) TS	12	INP025	1000	ml
Ammonia (~35 g/l) TS	12	INP026	1000	ml
Ammonia (~50 g/l) TS	12	INP027	1000	ml
Ammonia buffer TS	24	INP028	1000	ml
Ammonia buffer TS2	24	INP029	1000	ml
Ammonium acetate (100 g/l) TS	12	INP030	100	ml
Ammonium acetate (100 g/l) TS	12	INP030a	1000	ml
Ammonium acetate (50g/l) TS	6	INP031	1000	ml
Ammonium acetate (80 g/l) TS	6	INP032	1000	ml
Ammonium acetate buffer, pH 4.62, TS	12	INP033	1000	ml
Ammonium chloride (10 µg/ml NH4) TS, 10 times concentrated	12	INP034	100	ml
Ammonium chloride (100 g/l) TS	24	INP035	100	ml
Ammonium chloride (20g/l) TS	24	INP036	1000	ml
Ammonium chloride buffer, pH 10.0, TS	24	INP037	100	ml
Ammonium chloride buffer, pH 10.0, TS	24	INP037a	1000	ml
Ammonium chloride buffer, pH 10.5, TS	24	INP038	100	ml
Ammonium chloride buffer, pH 10.5, TS	24	INP038a	1000	ml
Ammonium chloride TS (Nessler's reagent)	12	INP039	1000	ml
Ammonium chloride, dilute, TS	6	INP040	1000	ml
Ammonium mercurithiocyanate TS	12	INP041	100	ml
Ammonium mercurithiocyanate TS	12	INP041a	1000	ml
Ammonium molybdate (45 g/l) TS	12	INP042	100	ml
Ammonium molybdate (45 g/l) TS	12	INP042a	1000	ml
Ammonium molybdate (95 g/l) TS	12	INP043	100	ml
Ammonium molybdate (95 g/l) TS	12	INP043a	1000	ml
Ammonium molybdate/nitric acid TS	6	INP044	100	ml
Ammonium molybdate/nitric acid TS	6	INP044a	1000	ml
Ammonium molybdate/sulfuric acid TS	12	INP045	30	ml
Ammonium molybdate/vanadate TS	12	INP046	100	ml
Ammonium nitrate (50 g/l) TS	12	INP047	100	ml
Ammonium nitrate (50 g/l) TS	12	INP047a	1000	ml
Ammonium nitrate TS	12	INP048	100	ml
Ammonium nitrate TS	12	INP048a	1000	ml
Ammonium oxalate (25 g/l) TS	12	INP049	100	ml
Ammonium oxalate (25 g/l) TS	12	INP049a	1000	ml
Ammonium oxalate (50 g/l) TS	12	INP050	100	ml
Ammonium oxalate (50 g/l) TS	12	INP050a	1000	ml
Ammonium persulfate/phosphate buffer TS	12	INP051	100	ml
Ammonium reineckate (10 g/l) TS	12	INP052	100	ml
Ammonium sulfamate (25 g/l) TS	12	INP053	100	ml
Ammonium sulfamate (25 g/l) TS	12	INP053a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ammonium sulfamate (5 g/l) TS	12	INP054	100	ml
Ammonium sulfamate (5 g/l) TS	12	INP054a	1000	ml
Ammonium sulfamate (50 g/l) TS	12	INP055	100	ml
Ammonium sulfamate (50 g/l) TS	12	INP055a	1000	ml
Ammonium sulfide TS	12	INP056	100	ml
Ammonium thiocyanate (0.01 mol/l) VS	12	INP057	1000	ml
Ammonium thiocyanate (0.05 mol/l) VS	12	INP058	1000	ml
Ammonium thiocyanate (0.1 mol/l) VS	12	INP059	1000	ml
Ammonium thiocyanate (10g/l) TS	12	INP060	100	ml
Ammonium thiocyanate (10g/l) TS	12	INP060a	1000	ml
Ammonium thiocyanate (75 g/l) TS	12	INP061	100	ml
Ammonium thiocyanate (75 g/l) TS	12	INP061a	1000	ml
Ammonium thiocyanate/cobalt(II) nitrate TS	12	INP062	100	ml
Aniline (25 g/l) TS	12	INP063	100	ml
Anisaldehyde TS	12	INP064	100	ml
Anisaldehyde/sulfuric acid TS	12	INP065	30	ml
Antimony trichloride TS	12	INP066	100	ml
Arsenic, strong, AsTS	12	INP067	100	ml
Azo violet TS	12	INP068	100	ml
Barium chloride (0.1 mol/l) VS	12	INP069	1000	ml
Barium chloride (0.5 mol/l) VS	24	INP070	1000	ml
Barium chloride (50 g/l) TS	24	INP071	1000	ml
Barium hydroxide (0.15mol/l) VS	24	INP072	1000	ml
Barium nitrate (0.01 mol/l) VS	24	INP073	1000	ml
Benzalkonium chloride TS1	24	INP074	100	ml
Blue tetrazolium/ethanol TS	12	INP075	100	ml
Borate buffer, pH 8.0, TS	12	INP076	200	ml
Borate buffer, pH 9.0, TS	12	INP077	200	ml
Borate buffer, pH 9.6, TS	12	INP078	200	ml
Boric acid (50 g/l) TS	12	INP079	100	ml
Brilliant green/acetic acid TS	12	INP080	100	ml
Bromine AsTS	12	INP081	100	ml
Bromocresol green TS1	12	INP082	100	ml
Bromocresol green/ethanol TS	12	INP083	100	ml
Bromocresol purple/ethanol TS	12	INP084	100	ml
Bromophenol blue (1g/l) TS	12	INP085	100	ml
Bromophenol blue TS	24	INP086	100	ml
Bromophenol blue/ethanol TS	12	INP087	100	ml
Bromothymol blue/dimethylformamide TS	12	INP088	100	ml
Bromothymol blue/ethanol TS	12	INP089	100	ml
Brown stock standard TS	12	INP090	100	ml
Calcium acetate (0.25 mol/l) VS	12	INP091	1000	ml
Calcium chloride (3.7g/l) TS	24	INP092	1000	ml
Calcium chloride (55 g/l) TS	24	INP093	1000	ml
Calcium standard (10 µg/ml Ca) TS	12	INP094	100	ml
Calcium standard (100 µg/ml Ca), ethanolic, TS	12	INP095	100	ml
Calcium sulfate TS	12	INP096	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Calcon indicator mixture R	24	INP097	100	ml
Ceric ammonium nitrate (0.01 mol/l) VS	12	INP098	1000	ml
Ceric ammonium sulfate (0.1 mol/l) VS	12	INP099	1000	ml
Ceric ammonium sulfate/nitric acid TS	12	INP100	100	ml
Ceric sulfate (0.1 mol/l) VS	24	INP101	1000	ml
Ceric sulfate (35 g/l) TS	24	INP102	1000	ml
Chloride standard (5 µg/l) TS	3	INP103	100	ml
Citrate buffer, pH 4.0, TS	12	INP104	250	ml
Citrate buffer, pH 5.4, TS	12	INP105	100	ml
Citric acid (180 g/l) FeTS	12	INP106	1000	ml
Citric acid (20 g/l) TS	12	INP107	1000	ml
Cobalt colour TS	24	INP108	100	ml
Cobalt colour, strong, TS	24	INP109	100	ml
Cobalt(II) chloride (30 g/l) TS	12	INP110	100	ml
Cobalt(II) chloride (30 g/l) TS	12	INP110a	1000	ml
Cobalt(II) chloride (5 g/l) TS	12	INP111	100	ml
Cobalt(II) chloride (5 g/l) TS	12	INP111a	1000	ml
Cobalt(II) chloride TS	12	INP112	100	ml
Cobalt(II) nitrate (10 g/l) TS	12	INP113	100	ml
Cobalt(II) nitrate (100 g/l) TS	12	INP114	100	ml
Cobaltous chloride TS	12	INP115	100	ml
Colbatous thiocyanate TS	12	INP116	100	ml
Copper colour TS	24	INP117	100	ml
Copper colour, strong, TS	24	INP118	100	ml
Copper edetate TS	12	INP119	50	ml
Copper standard (10 µg/ml Cu) TS	12	INP120	1000	ml
Copper standard (5 µg/ml Cu) TS	6	INP121	100	ml
Copper standard TS1	12	INP122	1000	ml
Copper standard TS2	6	INP123	100	ml
Copper tetramine hydroxide TS	12	INP124	100	ml
Copper tetramine hydroxide TS	12	INP124a	500	ml
Copper(II) acetate (45 g/l) TS	12	INP125	100	ml
Copper(II) acetate (45 g/l) TS	12	INP125a	1000	ml
Copper(II) chloride/ammonia TS	12	INP126	100	ml
Copper(II) chloride/ammonia TS	12	INP126a	250	ml
Copper(II) sulfate (1 g/l) TS	12	INP127	100	ml
Copper(II) sulfate (1 g/l) TS	12	INP127a	1000	ml
Copper(II) sulfate (160 g/l) TS	12	INP128	100	ml
Copper(II) sulfate (160 g/l) TS	12	INP128a	1000	ml
Copper(II) sulfate (80 g/l) TS	12	INP129	100	ml
Copper(II) sulfate (80 g/l) TS	12	INP129a	1000	ml
Copper(II) sulfate/ammonia TS	12	INP130	100	ml
Copper(II) sulfate/ammonia TS	12	INP130a	1000	ml
Cresol red/ethanol TS	12	INP131	100	ml
Cresol red/ethanol TS	12	INP131a	250	ml
Crystal violet/acetic acid TS	12	INP132	100	ml
Crystal violet/acetic acid TS	12	INP132a	250	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Diammonium hydrogen phosphate (100 g/l) TS	12	INP133	100	ml
Diammonium hydrogen phosphate (100 g/l) TS	12	INP133a	1000	ml
Dichlorofluorescein TS	12	INP134	100	ml
2,6-Dichloroquinone chlorimide/ethanol TS	12	INP135	100	ml
Dichromate colour TS	12	INP136	100	ml
Dichromate colour, strong, TS	12	INP137	100	ml
Diethylphenylenediamine sulfate TS	12	INP138	100	ml
Diethylphenylenediamine sulfate TS	12	INP138a	1000	ml
Dimethylamine/ethanol TS	12	INP139	100	ml
4-Dimethylaminobenzaldehyde TS2	12	INP140	100	ml
4-Dimethylaminobenzaldehyde TS3	12	INP141	100	ml
4-Dimethylaminobenzaldehyde TS4	12	INP142	100	ml
4-Dimethylaminobenzaldehyde TS5	12	INP143	100	ml
Dinitrobenzene/ethanol TS	12	INP144	100	ml
Diphenylamine/sulfuric acid TS	12	INP145	100	ml
Diphenylcarbazide TS	12	INP146	100	ml
Diphenylcarbazone/ethanol TS	12	INP147	100	ml
Disodium chromotropate (10 g/l) TS	12	INP148	100	ml
Disodium chromotropate TS	12	INP149	30	ml
Disodium edetate (0.01 mol/l) VS	24	INP150	1000	ml
Disodium edetate (0.05 mol/l) VS	24	INP151	1000	ml
Disodium edetate (0.1 mol/l) VS	24	INP152	1000	ml
Disodium edetate (10 g/l) TS	24	INP153	1000	ml
Disodium edetate (20 g/l) TS	24	INP154	1000	ml
Disodium edetate (50 g/l) TS	24	INP155	1000	ml
Disodium hydrogen phosphate (100 g/l) TS	24	INP156	100	ml
Disodium hydrogen phosphate (28.4 g/l) TS	24	INP157	100	ml
Disodium hydrogen phosphate (28.4 g/l) TS	24	INP157a	1000	ml
Disodium hydrogen phosphate (40 g/l) TS	24	INP158	100	ml
Disodium hydrogen phosphate (40 g/l) TS	24	INP158a	1000	ml
Domiphen bromide (10 g/l) TS	12	INP159	100	ml
Domiphen bromide (10 g/l) TS	12	INP159a	1000	ml
Dragendorff reagent TS (A+B)	6	INP160	100	ml
Eosin Y (5 g/l) TS	12	INP161	100	ml
Ethanol (~150 g/l) TS	24	INP162	1000	ml
Ethanol (~375 g/l) TS	24	INP163	1000	ml
Ethanol (~457 g/l) TS	24	INP164	1000	ml
Ethanol (~535 g/l) TS	24	INP165	1000	ml
Ethanol (~600 g/l) TS	24	INP166	1000	ml
Ethanol (~675 g/l) TS	24	INP167	1000	ml
Ethanol (~710 g/l) TS	24	INP168	1000	ml
Ethylene oxide stock solution R	12	INP169	100	ml
Ferric ammonium sulfate (0.1 mol/l) VS	12	INP170	1000	ml
Ferric ammonium sulfate (45 g/l) TS	12	INP171	1000	ml
Ferric ammonium sulfate TS1	12	INP172	100	ml
Ferric ammonium sulfate TS2	12	INP173	100	ml
Ferric chloride (25 g/l) TS	24	INP174	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Ferric chloride (25 g/l) TS	24	INP174a	1000	ml
Ferric chloride (50 g/l) TS	24	INP175	100	ml
Ferric chloride (50 g/l) TS	24	INP175a	1000	ml
Ferric chloride (65 g/l) TS	24	INP176	100	ml
Ferric chloride (65 g/l) TS	24	INP176a	1000	ml
Ferric chloride/ferricyanide/arsenite TS (A+C)	12	INP177	100	ml
Ferroin TS	24	INP178	100	ml
Ferrous ammonium sulfate (0.1 mol/l) VS	12	INP179	1000	ml
Ferrous ammonium sulfate (1 g/l) TS	12	INP180	100	ml
Fuchsin TS	12	INP181	100	ml
Fuchsin TS	12	INP181a	200	ml
Fuchsin, decolorized, TS	12	INP182	100	ml
Glyoxal bis(2-hydroxyanil) TS	12	INP183	100	ml
Green stock standard TS	12	INP184	100	ml
Holmium perchlorate TS	12	INP185	100	ml
Hydrochloric acid (~4 g/l) TS	24	INP186	1000	ml
Hydrochloric acid (~250 g/l), stannated, AsTS	24	INP187	100	ml
Hydrochloric acid (~70 g/l) TS	24	INP188	1000	ml
Hydrochloric acid (0.0001 mol/l) VS	12	INP189	1000	ml
Hydrochloric acid (0.001 mol/l) VS	12	INP190	1000	ml
Hydrochloric acid (0.005 mol/l) VS	12	INP191	1000	ml
Hydrochloric acid (0.01 mol/l) VS	12	INP192	1000	ml
Hydrochloric acid (0.015 mol/l) VS	12	INP193	1000	ml
Hydrochloric acid (0.02 mol/l) VS	12	INP194	1000	ml
Hydrochloric acid (0.05 mol/l) VS	12	INP195	1000	ml
Hydrochloric acid (0.1 mol/l) VS	24	INP196	1000	ml
Hydrochloric acid (0.2 mol/l) VS	24	INP197	1000	ml
Hydrochloric acid (0.5 mol/l) VS	24	INP198	1000	ml
Hydrochloric acid (1 mol/l) VS	24	INP199	1000	ml
Hydrochloric acid (2 mol/l) VS	24	INP200	1000	ml
Hydrochloric acid (5 mol/l) VS	24	INP201	1000	ml
Hydrochloric acid (~250 g/l) TS	24	INP202	1000	ml
Hydrochloric acid CITS	12	INP203	100	ml
Hydrochloric acid/ethanol (1mol/l) VS	24	INP204	100	ml
Hydrochloric acid/ethanol (1mol/l) VS	24	INP204a	1000	ml
Hydrochloric acid/ethanol (0.1 mol/l) VS	24	INP205	100	ml
Hydrochloric acid/ethanol (0.1 mol/l) VS	24	INP205a	1000	ml
Hydrochloric acid/methanol (0.01 mol/l) VS	24	INP206	100	ml
Hydrochloric acid/methanol (0.01 mol/l) VS	24	INP206a	1000	ml
Hydroxylamine hydrochloride (200 g/l) TS	12	INP207	100	ml
Hydroxylamine hydrochloride (70 g/l) TS	12	INP208	100	ml
Hydroxylamine hydrochloride TS	12	INP209	100	ml
Hydroxylamine hydrochloride TS2	12	INP210	100	ml
Imidazole/mercuric chloride TS	12	INP211	100	ml
Iodide standard (20 µg I/ml) TS	12	INP212	100	ml
Iodine (0.0001 mol/l) VS	12	INP213	1000	ml
Iodine (0.0005 mol/l) VS	12	INP214	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Iodine (0.005 mol/l) VS	12	INP215	1000	ml
Iodine (0.01 mol/l) VS	12	INP216	1000	ml
Iodine (0.02 mol/l) VS	12	INP217	1000	ml
Iodine (0.05 mol/l) VS	12	INP218	1000	ml
Iodine (0.1 mol/l) VS	12	INP219	1000	ml
Iodine bromide TS	12	INP220	1000	ml
Iodine TS	12	INP221	100	ml
Iodine/chloroform TS	12	INP222	100	ml
Iodine/ethanol TS	12	INP223	1000	ml
Iron colour TS	24	INP224	100	ml
Iron colour, strong, TS	24	INP225	100	ml
Iron standard FeTS	12	INP226	100	ml
Isoniazid TS	12	INP227	100	ml
Isoniazid TS	12	INP227a	200	ml
Lanthanum nitrate (30 g/l) TS	12	INP228	100	ml
Lead acetate (80 g/l) TS	6	INP229	100	ml
Lead acetate paper R	12	INP230	pack of 50	
Lead nitrate (0.05 mol/l) VS	12	INP231	1000	ml
Lead nitrate (0.1 mol/l) VS	24	INP232	1000	ml
Lead nitrate (100 g/l) TS	12	INP233	100	ml
Lead nitrate paper R	12	INP234	pack of 50	
Lead, strong, PbTS	12	INP235	100	ml
Lithium carbonate/trinitrophenol TS	12	INP236	100	ml
Lithium chloride (10 g/l) TS	12	INP237	100	ml
Lithium methoxide (0.1 mol/l) VS	12	INP238	1000	ml
Lithium perchlorate/acetic acid TS	12	INP239	100	ml
Magnesium (0.1 mg/ml Mg) TS	12	INP240	100	ml
Magnesium chloride (0.1 mol/l) VS	24	INP241	1000	ml
Magnesium standard (10 µg/ml Mg) TS	6	INP242	100	ml
Magnesium sulfate (50 g/l) TS	12	INP243	100	ml
Magnesium sulfate/sulfuric acid TS	12	INP244	100	ml
Manganese sulfate (15 g/l) TS	12	INP245	100	ml
Manganese/silver paper R	12	INP246	pack of 50	
Mercuric acetate/acetic acid TS	6	INP247	100	ml
Mercuric bromide AsTS	12	INP248	100	ml
Mercuric bromide paper AsR	12	INP249	pack of 50	
Mercuric chloride (2.7 g/l) TS	12	INP250	100	ml
Mercuric chloride (2.7 g/l) TS	12	INP250a	1000	ml
Mercuric chloride (65 g/l) TS	12	INP251	100	ml
Mercuric chloride (65 g/l) TS	12	INP251a	1000	ml
Mercuric chloride/ethanol TS	12	INP252	100	ml
Mercuric nitrate (0.01 mol/l) VS	12	INP253	1000	ml
Mercuric nitrate (0.02 mol/l) VS	12	INP254	1000	ml
Mercuric nitrate TS	12	INP255	50	ml
Mercuric sulfate TS	12	INP256	100	ml
Methyl green/iodomercurate paper R	12	INP257	pack of 50	
Methyl orange ethanol TS	24	INP258	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Methyl orange/acetone TS	6	INP259	100	ml
Methyl red/ethanol TS	12	INP260	250	ml
Methyl red/methylthioninium chloride TS	12	INP261	50	ml
Methylamine hydrochloride (20 g/l) TS	12	INP262	100	ml
Methylthioninium chloride (0.2 g/l) TS	12	INP263	100	ml
Methylthioninium chloride (1 g/l) TS	12	INP264	100	ml
Monoethanolamine (0.1mol/l) VS	12	INP265	100	ml
Mordant Black 11 indicator mixture R	24	INP266	100	ml
N-(1-Naphthyl)ethylenediamine hydrochloride (1 g/l) TS	12	INP267	100	ml
N-(1-Naphthyl)ethylenediamine hydrochloride (5 g/l) TS	12	INP268	100	ml
N-(1-Naphthyl)ethylenediamine hydrochloride/1-propanol TS	12	INP269	30	ml
N-(1-Naphthyl)ethylenediamine/ethanol TS	12	INP270	100	ml
N-(1-Naphthyl)ethylenediamine/ethanol TS	12	INP270a	1000	ml
1-Naphthol/ethanol TS	12	INP271	100	ml
Neutral red/ethanol TS	12	INP272	100	ml
Ninhydrin/ 2-propanol (5g/l) TS	12	INP273	100	ml
Nitric acid (~130 g/l) TS	12	INP274	1000	ml
Nitric acid (0.05 mol/l) VS	12	INP275	1000	ml
Nitric acid (1 mol/l) VS	12	INP276	1000	ml
Nitric acid (15 g/l) TS	12	INP277	1000	ml
Nitric acid (3 g/l) TS	12	INP278	1000	ml
4-Nitroaniline TS1	12	INP279	100	ml
4-Nitroaniline TS1	12	INP279a	1000	ml
1-Nitroso-2-naphthol-3,6-disodium disulfonate (2 g/l) TS	12	INP280	100	ml
Opalescence stock standard TS	6	INP281	100	ml
Oracet blue B/acetic acid TS	12	INP282	100	ml
Oxalic acid (0.05 g/l) TS	12	INP283	100	ml
Oxalic acid/sulfuric acid TS	12	INP284	100	ml
Perchloric acid (~140 g/l) TS	12	INP285	100	ml
Perchloric acid (0.02 mol/l) VS	12	INP286	1000	ml
Perchloric acid (0.05 mol/l) VS	12	INP287	1000	ml
Perchloric acid (0.1 mol/l) VS	12	INP288	1000	ml
Perchloric acid TS	12	INP289	100	ml
Perchloric acid/dioxan (0.1 mol/l) VS	12	INP290	1000	ml
Periodic-acetic acid TS	12	INP291	100	ml
o-Phenanthroline (1 g/l) TS	12	INP292	100	ml
o-Phenanthroline TS	12	INP293	100	ml
Phenol (50 g/l) TS	12	INP294	100	ml
Phenol (50 g/l) TS	12	INP294a	1000	ml
Phenol red/ethanol TS	12	INP295	100	ml
Phenol red/ethanol TS	12	INP295a	250	ml
Phenoldisulfonic acid TS	6	INP296	30	ml
Phenolphthalein/ethanol TS	24	INP297	100	ml
Phenolphthalein/pyridine TS	12	INP298	100	ml
Phenylhydrazine hydrochloride (10 g/l) TS	12	INP299	100	ml
Phenylhydrazine/hydrochloric acid TS	12	INP300	100	ml
Phosphate buffer, pH 4.0, TS	12	INP301	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Phosphate buffer, pH 6.4, TS	12	INP302	200	ml
Phosphate buffer, pH 6.4, TS	12	INP302a	1000	ml
Phosphate buffer, pH 6.9, TS	12	INP303	1000	ml
Phosphate buffer, pH 7.0 (0.067 mol/l), TS	12	INP304	1000	ml
Phosphate buffer, pH 7.0, TS	12	INP305	1000	ml
Phosphate buffer, pH 7.2, TS	12	INP306	1000	ml
Phosphate buffer, pH 7.4, TS.	12	INP307	1000	ml
Phosphate buffer, pH 7.6, TS	12	INP308	200	ml
Phosphate buffer, pH 8.0, TS	12	INP309	1000	ml
Phosphate standard (5 µg/ml) TS	12	INP310	100	ml
Phosphate standard buffer, pH 6.8, TS	12	INP311	1000	ml
Phosphate standard buffer, pH 7.4, TS	12	INP312	1000	ml
Phosphate/citrate buffer pH 4.5, TS	12	INP313	1000	ml
Phosphate/citrate buffer pH 6.0, TS	12	INP314	1000	ml
Phosphomolybdic acid (80 g/l) TS	12	INP315	100	ml
Phosphomolybdic acid/ethanol TS	12	INP316	100	ml
Phosphoric acid (~105 g/l) TS	12	INP317	1000	ml
Phosphoric acid (~20g/l) TS	12	INP318	1000	ml
Phosphoric acid (~2.8 g/l) TS	12	INP319	100	ml
Phthalate buffer, pH 3.4, TS	12	INP320	200	ml
Phthalate buffer, pH 3.5, TS	12	INP321	200	ml
Phthalate buffer, pH 4.0, TS	12	INP322	200	ml
Platinic chloride (60 g/l) TS	12	INP323	10	ml
Potassio-cupric tartrate TS (A+B)	12	INP324	100	ml
Potassio-mercuric iodide TS	12	INP325	500	ml
Potassio-mercuric iodide TS	12	INP325a	1000	ml
Potassium acetate TS	12	INP326	100	ml
Potassium acetate TS	12	INP326a	1000	ml
Potassium bromate (0.00833 mol/l) VS	12	INP327	1000	ml
Potassium bromate (0.0167 mol/l) VS	12	INP328	1000	ml
Potassium bromate (0.0333 mol/l) VS	12	INP329	1000	ml
Potassium bromate (50 g/l) TS	12	INP330	100	ml
Potassium bromide (0.119 g/l) TS	12	INP331	100	ml
Potassium bromide (0.119 g/l) TS	12	INP331a	1000	ml
Potassium bromide (100 g/l) TS	12	INP332	100	ml
Potassium bromide (100 g/l) TS	12	INP332a	1000	ml
Potassium bromide (125 g/l) TS	12	INP333	100	ml
Potassium bromide (125 g/l) TS	12	INP333a	1000	ml
Potassium chloride (100 g/l) TS	12	INP334	100	ml
Potassium chloride (100 g/l) TS	12	INP334a	1000	ml
Potassium chloride (350 g/l) TS	12	INP335	100	ml
Potassium chloride (350 g/l) TS	12	INP335a	1000	ml
Potassium chromate (100 g/l) TS	12	INP336	100	ml
Potassium chromate (100 g/l) TS	12	INP336a	1000	ml
Potassium cyanide (100 g/l) TS	12	INP337	100	ml
Potassium cyanide (100 g/l) TS	12	INP337a	1000	ml
Potassium cyanide (50 g/l) TS	12	INP338	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium cyanide (50 g/l) TS	12	INP338a	1000	ml
Potassium cyanide PbTS	12	INP339	100	ml
Potassium dichromate (0.0167 mol/l) VS	12	INP340	1000	ml
Potassium dichromate (100 g/l) TS	12	INP341	100	ml
Potassium dichromate (100 g/l) TS	12	INP341a	1000	ml
Potassium dichromate TS	12	INP342	100	ml
Potassium dichromate TS	12	INP342a	1000	ml
Potassium dichromate TS2	12	INP343	100	ml
Potassium dichromate TS3	12	INP344	100	ml
Potassium dihydrogen phosphate (100 g/l) TS	12	INP345	100	ml
Potassium dihydrogen phosphate (100 g/l) TS	12	INP345a	1000	ml
Potassium dihydrogen phosphate (13.6 g/l) TS	12	INP346	100	ml
Potassium dihydrogen phosphate (13.6 g/l) TS	12	INP346a	1000	ml
Potassium dihydrogen phosphate (27.2 g/l) TS	12	INP347	100	ml
Potassium dihydrogen phosphate (27.2 g/l) TS	12	INP347a	1000	ml
Potassium dihydrogen phosphate (70 g/l) TS	12	INP348	100	ml
Potassium dihydrogen phosphate (70 g/l) TS	12	INP348a	1000	ml
Potassium ferrocyanide (45 g/l) TS	12	INP349	100	ml
Potassium ferrocyanide (45 g/l) TS	12	INP349a	1000	ml
Potassium hydrogen phthalate standard TS	12	INP350	100	ml
Potassium hydrogen phthalate standard TS	12	INP350a	1000	ml
Potassium hydroxide (~110 g/l) TS	12	INP351	100	ml
Potassium hydroxide (~110 g/l) TS	12	INP351a	1000	ml
Potassium hydroxide (~400 g/l) TS	12	INP352	100	ml
Potassium hydroxide (~400 g/l) TS	12	INP352a	1000	ml
Potassium hydroxide (~55 g/l) TS	12	INP353	100	ml
Potassium hydroxide (~55 g/l) TS	12	INP353a	1000	ml
Potassium hydroxide (~560g/l) TS	12	INP354	100	ml
Potassium hydroxide (~560g/l) TS	12	INP354a	1000	ml
Potassium hydroxide (0.01 mol/l) VS	12	INP355	1000	ml
Potassium hydroxide (0.1 mol/l) VS	12	INP356	1000	ml
Potassium hydroxide (0.5 mol/l) VS	12	INP357	1000	ml
Potassium hydroxide (1 mol/l) VS	12	INP358	1000	ml
Potassium hydroxide/ethanol (0.02 mol/l) VS	12	INP359	1000	ml
Potassium hydroxide/ethanol (0.1mol/l) VS	12	INP360	1000	ml
Potassium hydroxide/ethanol (0.5 mol/l) VS	12	INP361	1000	ml
Potassium hydroxide/ethanol (1 mol/l) VS	12	INP362	1000	ml
Potassium hydroxide/ethanol TS1	12	INP363	100	ml
Potassium hydroxide/ethanol TS1	12	INP363a	1000	ml
Potassium hydroxide/ethanol TS2	12	INP364	100	ml
Potassium hydroxide/ethanol TS2	12	INP364a	1000	ml
Potassium hydroxide/methanol TS	12	INP365	100	ml
Potassium hydroxide/methanol TS	12	INP365a	1000	ml
Potassium iodate (0.01 mol/l) VS	12	INP366	1000	ml
Potassium iodate (0.05 mol/l) VS	12	INP367	1000	ml
Potassium iodide (100 g/l) TS	12	INP368	100	ml
Potassium iodide (100 g/l) TS	12	INP368a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Potassium iodide (160g/l) TS	12	INP369	100	ml
Potassium iodide (160g/l) TS	12	INP369a	1000	ml
Potassium iodide (300 g/l) TS	12	INP370	100	ml
Potassium iodide (300 g/l) TS	12	INP370a	1000	ml
Potassium iodide (400 g/l) TS	12	INP371	100	ml
Potassium iodide (400 g/l) TS	12	INP371a	1000	ml
Potassium iodide (60 g/l) TS	12	INP372	100	ml
Potassium iodide (60 g/l) TS	12	INP372a	1000	ml
Potassium iodide (80 g/l) TS	12	INP373	100	ml
Potassium iodide (80 g/l) TS	12	INP373a	1000	ml
Potassium iodide/starch TS1	12	INP374	100	ml
Potassium iodobismuthate TS1	6	INP375	500	ml
Potassium iodobismuthate TS2	6	INP376	500	ml
Potassium iodobismuthate/acetic acid TS	3	INP377	100	ml
Potassium iodoplatinate TS	12	INP378	10	ml
Potassium iodoplatinate TS2	12	INP379	100	ml
Potassium nitrite (100 g/l) TS	12	INP380	100	ml
Potassium periodate TS	6	INP381	100	ml
Potassium permanganate (0.0002 mol/l) VS	6	INP382	1000	ml
Potassium permanganate (0.002 mol/l) VS	12	INP383	1000	ml
Potassium permanganate (0.02 mol/l) VS	12	INP384	1000	ml
Potassium permanganate (~25 g/l) TS	12	INP385	100	ml
Potassium permanganate (~10 g/l) TS	12	INP386	100	ml
Potassium permanganate (~10 g/l) TS	12	INP386a	1000	ml
Potassium permanganate (~1g/l) TS	12	INP387	100	ml
Potassium permanganate (~1g/l) TS	12	INP387a	1000	ml
Potassium permanganate, basic (~5 g/l) TS	12	INP388	100	ml
Potassium permanganate, basic (~5 g/l) TS	12	INP388a	1000	ml
Potassium permanganate, basic (~1 g/l) TS	12	INP389	100	ml
Potassium permanganate, basic (~1 g/l) TS	12	INP389a	1000	ml
Potassium permanganate/phosphoric acid TS	12	INP390	100	ml
Potassium sulfate (0.1 g/l) TS	12	INP391	100	ml
Potassium sulfate (174 mg/l) TS	12	INP392	100	ml
Potassium sulfate (174 mg/l) TS	12	INP392a	1000	ml
Potassium tetraoxalate standard TS	12	INP393	100	ml
Potassium tetraoxalate standard TS	12	INP393a	1000	ml
Potassium thiocyanate (200 g/l) TS	12	INP394	100	ml
Potassium thiocyanate (200 g/l) TS	12	INP394a	1000	ml
Pyrogallol, alkaline, TS (A+B)	12	INP395	2 x 50	ml
Quinaldine red/ethanol TS	24	INP396	100	ml
Quinaldine red/methanol TS	24	INP397	100	ml
Quinhydrone/methanol TS	24	INP398	100	ml
Red stock standard TS	12	INP399	100	ml
Resorcinol (20 g/l) TS	12	INP400	100	ml
Salicylaldehyde TS	12	INP401	100	ml
Selenious acid/sulfuric acid TS	12	INP402	100	ml
Silver nitrate (0.001 mol/l) VS	12	INP403	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Silver nitrate (0.01 mol/l) VS	12	INP404	1000	ml
Silver nitrate (0.05 mol/l) VS	24	INP405	1000	ml
Silver nitrate (0.1 mol/l) VS	24	INP406	1000	ml
Silver nitrate (100 g/l) TS	12	INP407	100	ml
Silver nitrate (40 g/l) TS	12	INP408	100	ml
Silver standard (5 µg Ag/ml) TS	6	INP409	100	ml
Sodium acetate (0.04 mol/l) VS	12	INP410	1000	ml
Sodium acetate (150 g/l) TS	24	INP411	100	ml
Sodium acetate (50 g/l) TS	24	INP412	100	ml
Sodium acetate (60 g/l) TS	24	INP413	100	ml
Sodium acetate/glacial acetic acid (0.1 mol/l) VS	12	INP414	1000	ml
Sodium alizarinsulfonate (1 g/l) TS	12	INP415	100	ml
Sodium alizarinsulfonate (10 g/l) TS	12	INP416	100	ml
Sodium arsenite (0.05 mol/l) VS	12	INP417	1000	ml
Sodium arsenite (0.1 mol/l) VS	12	INP418	1000	ml
Sodium carbonate (10 g/l) TS	24	INP419	100	ml
Sodium carbonate (10 g/l) TS	24	INP419a	1000	ml
Sodium carbonate (200 g/l) TS	24	INP420	100	ml
Sodium carbonate (200 g/l) TS	24	INP420a	1000	ml
Sodium carbonate (50 g/l) TS	24	INP421	100	ml
Sodium carbonate (50 g/l) TS	24	INP421a	1000	ml
Sodium carbonate (75 g/l) TS	24	INP422	100	ml
Sodium carbonate (75 g/l) TS	24	INP422a	1000	ml
Sodium carbonate standard TS	24	INP423	100	ml
Sodium carbonate standard TS	24	INP423a	1000	ml
Sodium chloride (10 g/l) TS	24	INP424	100	ml
Sodium chloride (10 g/l) TS	24	INP424a	1000	ml
Sodium chloride (300g/l) TS	24	INP425	100	ml
Sodium chloride (300g/l) TS	24	INP425a	1000	ml
Sodium chloride (400 g/l) TS	24	INP426	100	ml
Sodium chloride (400 g/l) TS	24	INP426a	1000	ml
Sodium chloride (9 g/l) TS	24	INP427	100	ml
Sodium chloride (9 g/l) TS	24	INP427a	1000	ml
Sodium citrate (250 g/l) TS	12	INP428	100	ml
Sodium citrate (250 g/l) TS	12	INP428a	1000	ml
Sodium cobaltinitrite (100 g/l) TS	12	INP429	100	ml
Sodium diethyldithiocarbamate (0.8 g/l) TS	12	INP430	100	ml
Sodium dihydrogen phosphate (275 g/l) TS	12	INP431	100	ml
Sodium dihydrogen phosphate (45 g/l) TS	12	INP432	100	ml
Sodium hydrogen carbonate (100 g/l) TS	12	INP433	100	ml
Sodium hydrogen carbonate (100 g/l) TS	12	INP433a	1000	ml
Sodium hydrogen carbonate (40 g/l) TS	12	INP434	100	ml
Sodium hydrogen carbonate (40 g/l) TS	12	INP434a	1000	ml
Sodium hydroxide (~150 g/l) TS	12	INP435	100	ml
Sodium hydroxide (~150 g/l) TS	12	INP435a	1000	ml
Sodium hydroxide (~200 g/l) TS	12	INP436	100	ml
Sodium hydroxide (~200 g/l) TS	12	INP436a	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sodium hydroxide (~300 g/l) TS	12	INP437	100	ml
Sodium hydroxide (~300 g/l) TS	12	INP437a	1000	ml
Sodium hydroxide (~400 g/l) TS	12	INP438	100	ml
Sodium hydroxide (~400 g/l) TS	12	INP438a	1000	ml
Sodium hydroxide (~80 g/l) TS	12	INP439	100	ml
Sodium hydroxide (~80 g/l) TS	12	INP439a	1000	ml
Sodium hydroxide (~40 g/l) TS	12	INP440	100	ml
Sodium hydroxide (~40 g/l) TS	12	INP440a	1000	ml
Sodium hydroxide (0.001 mol/l) VS	12	INP441	1000	ml
Sodium hydroxide (0.01 mol/l) VS	12	INP442	1000	ml
Sodium hydroxide (0.01 mol/l), carbonate-free, VS	12	INP443	1000	ml
Sodium hydroxide (0.02 mol/l) VS	12	INP444	1000	ml
Sodium hydroxide (0.02 mol/l), carbonate-free, VS	12	INP445	1000	ml
Sodium hydroxide (0.05 mol/l) VS	12	INP446	1000	ml
Sodium hydroxide (0.1 mol/l) VS	12	INP447	1000	ml
Sodium hydroxide (0.1 mol/l), carbonate-free, VS	12	INP448	1000	ml
Sodium hydroxide (0.2 mol/l) VS	12	INP449	1000	ml
Sodium hydroxide (0.2 mol/l), carbonate-free, VS	12	INP450	1000	ml
Sodium hydroxide (0.5 mol/l) VS	12	INP451	1000	ml
Sodium hydroxide (0.5 mol/l), carbonate-free, VS	12	INP452	1000	ml
Sodium hydroxide (1 mol/l) VS	12	INP453	1000	ml
Sodium hydroxide (1 mol/l), carbonate-free, VS	12	INP454	1000	ml
Sodium hydroxide (10 g/l) TS	12	INP455	100	ml
Sodium hydroxide (10 g/l) TS	12	INP455a	1000	ml
Sodium hydroxide (50 g/l) TS	12	INP456	100	ml
Sodium hydroxide (50 g/l) TS	12	INP456a	1000	ml
Sodium hydroxide/ethanol TS	24	INP457	100	ml
Sodium hydroxide/ethanol TS	24	INP457a	1000	ml
Sodium hydroxide/methanol TS	24	INP458	100	ml
Sodium hydroxide/methanol TS	24	INP458a	1000	ml
Sodium laurilsulfate (10 g/l) TS	12	INP459	100	ml
Sodium laurilsulfate (10 g/l) TS	12	INP459a	1000	ml
Sodium metabisulfite (50 g/l) TS	24	INP460	100	ml
Sodium metabisulfite (50 g/l) TS	24	INP460a	1000	ml
Sodium metaperiodate TS	12	INP461	100	ml
Sodium metaperiodate TS	12	INP461a	1000	ml
Sodium methoxide (0.1 mol/l) VS	12	INP462	1000	ml
Sodium molybdotungstophosphate TS	12	INP463	100	ml
Sodium nitrite (0.1 mol/l) VS	12	INP464	1000	ml
Sodium nitrite (0.1 mol/l) VS	12	INP464a	100	ml
Sodium nitrite (10 g/l) TS	12	INP465	100	ml
Sodium nitrite (10 g/l) TS	12	INP465a	1000	ml
Sodium nitrite (100 g/l) TS	12	INP466	100	ml
Sodium nitrite (100 g/l) TS	12	INP466a	1000	ml
Sodium nitrite (20 g/l) TS	12	INP467	100	ml
Sodium nitrite (20 g/l) TS	12	INP467a	1000	ml
Sodium nitrite (3 g/l) TS	12	INP468	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sodium nitrite (3 g/l) TS	12	INP468a	1000	ml
Sodium nitrite (35 g/l) TS	12	INP469	100	ml
Sodium nitrite (35 g/l) TS	12	INP469a	1000	ml
Sodium nitrite (50 g/l) TS	12	INP470	100	ml
Sodium nitrite (50 g/l) TS	12	INP470a	1000	ml
Sodium nitrite/hydrochloric acid TS	12	INP471	100	ml
Sodium nitroprusside (8.5 g/l) TS	6	INP472	100	ml
Sodium nitroprusside, alkaline, TS	12	INP473	100	ml
Sodium salicylate (11.5 g/l) TS	12	INP474	100	ml
Sodium standard (200 µg Na/ml) TS	12	INP475	100	ml
Sodium sulfide TS	12	INP476	100	ml
Sodium tetraborate (10 g/l) TS	12	INP477	100	ml
Sodium tetraborate (10 g/l) TS	12	INP477a	1000	ml
Sodium tetraborate standard TS	12	INP478	125	ml
Sodium tetraphenylborate (30 g/l) TS	12	INP479	100	ml
Sodium thiosulfate (0.002 mol/l) VS	12	INP480	1000	ml
Sodium thiosulfate (0.01 mol/l) VS	12	INP481	1000	ml
Sodium thiosulfate (0.02 mol/l) VS	12	INP482	1000	ml
Sodium thiosulfate (0.05 mol/l) VS	12	INP483	1000	ml
Sodium thiosulfate (0.1 mol/l) VS	24	INP484	1000	ml
Sodium thiosulfate (320 g/l) TS	24	INP485	100	ml
Stannous chloride AsTS	12	INP486	100	ml
Stannous chloride AsTS	12	INP486a	1000	ml
Stannous chloride TS	12	INP487	100	ml
Stannous chloride TS	12	INP487a	1000	ml
Stannous chloride/hydrochloric acid TS1	12	INP488	100	ml
Sudan red TS	12	INP489	100	ml
Sulfamic acid (5 g/l) TS	12	INP490	100	ml
Sulfamic acid (5 g/l) TS	12	INP490a	1000	ml
Sulfanilic acid, diazotized, TS	6	INP491	50	ml
Sulfosalicylic acid (175 g/l) TS	12	INP492	100	ml
Sulfuric acid (~10 g/l) TS	24	INP493	100	ml
Sulfuric acid (~10 g/l) TS	24	INP493a	1000	ml
Sulfuric acid (~100 g/l) TS	24	INP494	100	ml
Sulfuric acid (~100 g/l) TS	24	INP494a	1000	ml
Sulfuric acid (~1125 g/l) TS	24	INP495	100	ml
Sulfuric acid (~190 g/l) TS	24	INP496	100	ml
Sulfuric acid (~440 g/l) TS	24	INP497	100	ml
Sulfuric acid (~50 g/l) TS	24	INP498	100	ml
Sulfuric acid (~570 g/l) TS	24	INP499	100	ml
Sulfuric acid (~635 g/l) TS	24	INP500	100	ml
Sulfuric acid (~700 g/l) TS	24	INP501	100	ml
Sulfuric acid (0.005 mol/l) VS	24	INP502	1000	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Sulfuric acid (0.01 mol/l) VS	24	INP503	1000	ml
Sulfuric acid (0.05 mol/l) VS	24	INP504	1000	ml
Sulfuric acid (0.1 mol/l) VS	24	INP505	1000	ml
Sulfuric acid (0.125 mol/l) VS	24	INP506	1000	ml
Sulfuric acid (0.25 mol/l) VS	24	INP507	1000	ml
Sulfuric acid (0.5 mol/l) VS	24	INP508	1000	ml
Sulfuric acid/ethanol (~0.05 mol/l)	12	INP509	100	ml
Sulfuric acid/ethanol TS	12	INP510	100	ml
Sulfuric acid/methanol TS	12	INP511	100	ml
Tannic acid (50 g/l) TS	12	INP512	100	ml
Tartaric acid (10 g/l) TS	12	INP513	100	ml
Tartaric acid (10 g/l) TS	12	INP513a	1000	ml
Tartaric acid (200 g/l) TS	12	INP514	100	ml
Tartaric acid (200 g/l) TS	12	INP514a	500	ml
Tartaric acid (5 g/l) TS	12	INP515	100	ml
Tartaric acid (5 g/l) TS	12	INP515a	1000	ml
Tetrabutylammonium hydroxide (0.1 mol/l) VS	12	INP516	100	ml
Tetrabutylammonium hydroxide (0.1 mol/l) VS	12	INP516a	1000	ml
Tetrabutylammonium hydroxide TS	12	INP517	100	ml
Tetrabutylammonium hydroxide/methanol TS	12	INP518	100	ml
Tetramethylammonium hydroxide/ethanol TS	12	INP519	100	ml
Thiourea (0.1 g/l) TS	12	INP520	100	ml
Thorium nitrate (0.005 mol/l) VS	12	INP521	1000	ml
Thymol blue/dimethylformamide TS	12	INP522	100	ml
Thymol blue/ethanol TS	12	INP523	100	ml
Thymol blue/methanol TS	12	INP524	100	ml
Thymol TS1	12	INP525	100	ml
Thymol TS2	12	INP526	100	ml
Thymol TS3	12	INP527	100	ml
Thymolphthalein/dimethylformamide TS	12	INP528	100	ml
Thymolphthalein/ethanol TS	24	INP529	100	ml
Titan yellow TS	12	INP530	100	ml
Titanium dioxide/sulfuric acid TS	12	INP531	100	ml
Titanium trichloride (0.1 mol/l) VS	12	INP532	1000	ml
4-Toluenesulfonic acid/ethanol TS	12	INP533	100	ml
Triketohydrindene/butanol TS	12	INP534	100	ml
Triketohydrindene/butanol/acetic acid TS	12	INP535	100	ml
Triketohydrindene/ethanol TS	12	INP536	100	ml
Triketohydrindene/pyridine/acetone TS	12	INP537	100	ml
Triketohydrindene/sodium metabisulfite TS	12	INP538	100	ml
Trimethylpyridine (50 g/l) TS	12	INP539	100	ml
Trimethylpyridine (50 g/l) TS	12	INP539a	1000	ml
Trisodium orthophosphate (2 g/l) TS	12	INP540	100	ml

DESCRIPTION	VALIDITY *months*	REF	VOLUME	UNIT
Trisodium orthophosphate (2 g/l) TS	12	INP540a	1000	ml
Vanadium/sulfuric acid TS	12	INP541	100	ml
Water R	12	INP542	5000	ml
Water, ammonia-free, R	12	INP543	1000	ml
Water, carbon-dioxide-free and ammonia-free, R	12	INP544	1000	ml
Water, carbon-dioxide-free, R	12	INP545	1000	ml
Xylenol orange indicator mixture R	12	INP546	50	ml
Yellow stock standard TS	12	INP547	100	ml
Zinc standard (20 µg/ml Zn) TS	12	INP548	100	ml
Zirconyl nitrate TS	12	INP549	100	ml

GENERAL SALES TERMS AND CONDITIONS

1. ORDERING

1.1. The orders should be placed in writing with indication of the article number, quantity (numberand size of packages) and article description.

Please, state date and invoice number when referring to previous orders. This reference is meant, however, to be valid only for the nature of the product and not the Prices.

1.2. Orders placed by telephone will only become legally binding after they have been confirmed by us in writing or after we have sent the goods with invoice to the buyer.

1.3. We reserve the right to cancel or delay, in whole or partially, orders or contracts for the supply of products due to unforeseen difficulties such as a result of force major circumstances occurring either in our own laboratory (facilities) or in those of our suppliers. Such developments relieve us from the obligations previously undertaken at the time the order was accepted.

1.4. In accordance with legal regulations, we reserve the right to terminate contracts or suspend deliveries in the event of changes in the economic conditions of the customers (bankruptcy, liquidation, insolvency, company dissolution or modification, etc.). In such cases the customer will be held responsible for breach of contract.

2. PRICES

2.1. The Prices are in EUR, EXW Stara Zagora, Bulgaria. Invoicing will be made in Euro at the Prices applicable on the date of delivery. We do not hold any responsibility with regard to the resale policy of our clients.

2.2. In the case of a substantial cost increase occurs prior to the order delivery, we shall be entitled, after the customer has been duly informed, to surcharge this to the agreed Prices. The buyer shall have the right to cancel his order within 7 days after notification of the Price increase.

2.3. Transport cost: the transport cost for the deliveries will be charged to the client and added in the invoice to the value of the goods, thus forming the final invoice amount

3. DELIVERY

3.1. Delivery will be made as quickly as possible using the means of transport and courier agreed upon between us and the buyer. We cannot, however, bind ourselves to a fixed delivery period.

3.2. In the event of being hindered in the fulfillment of our obligations due to unforeseen circumstances,e.g. operational breakdowns, shortage of raw material, transport difficulties, etc. No matter such could be suffered in our facilities, by our suppliers or by the postal services or forwarding agents, the delivery period will be extended by reasonable margin provided that the supply or service is still able to be rendered. Should the above mentioned circumstances prevent the rendering of the supply then we shall be released from our obligations in such respects.

3.3.In the above mentioned cases, when the delivery period is prolonged or the supplier is released from his supply obligations, no claims for compensation or rights of cancellation arise for the ordering party.

4. PACKAGING

4.1. We pack our goods using the most appropriate material based on the nature of the goods themselves and the means of shipment selected.

4.2. We provide packaging free of charge and do not accept its return.

5. GUARANTEE, NOTIFICATION OF DEFFECTS, RETURN OF GOODS AND LIABILITY

5.1. Upon receipt the buyer is obliged to check immediately if the goods correspond in quality and quantity to the contractual agreements. If this check is not carried out thoroughly and if apparent faults are not notified immediately, within one week at the latest from the receipt of goods, the goods will be accepted regardless such faults. Claims will not entail release from payment obligations.

5.2. Justified complaints will be acknowledged by Price reduction, subsequent improvement, exchange or repurchase against refund. Subsequently derived claims will be excluded.

5.3. Recognition can not be given to complaints against the quality of unstable products which have decomposed due to too long storage or incorrect storing conditions. We disclaim all liability for damages occurring as a result of improper handling or storage.

5.4. We shall not accept any returned goods without our prior agreement. Returned goods received by us without prior mutual agreement will be returned back to sender at his costs and risk.

5.5. Return of properly supplied goods will only be made in exceptional cases and with the proviso that the goods will be returned in their undamaged original packaging.

5.6. The buyer shall be responsible for observing any official regulations in relation to dealing (supply, storage, processing, trade, etc.) in individual products. We shall reject any recourse to liability in respect of damage caused by our customers through non-observance of protective legislation (e.g.. regulation concerning dangerous substances).

6. PAYMENT

6.1. Our invoices will be payable in advance otherwise agreed upon between us and the buyer. Once the invoice becomes due, an interest for the delay of payment is charged to the Buyer amouting the equivalent of the European Central Bank interest rate increased by 6 percentage points.

6.2. For bank transfers, bank drafts or girocheques, the time of receipt of payments shall be considered to be the date on which we receive the credit advice from the financial institution.

6.3. Where, during a provisional business relationship, the inability of the Buyer to make payment provides valid evidence of suspect reliability, we shall be entitled to cancel all current supply contracts or to request payment in advance.

7. CHOICE OF DOMICILE AND COURT OF JURISDICTION

7.1. All disputes between our Company and its Customers are under the jurisdiction of the Stara Zagora Court. The Stara Zagora judicial authorities will have sole jurisdiction over any controversy arising within the context of these relations.

Custom Analytical Reagent

* Required

Compound*	CAS number or reference*	Concentration*

CONCENTRATION Units* mg/ml ☐ µg/ml ☐ ng/ml ☐ wt./wt% ☐
vol./vol% ☐ Molarity ☐ Normality ☐ Other ☐

GRADE of chemicals to be used : .....

PACKAGE SIZE* 100 ml ☐ 500 ml ☐ 1 000 ml ☐ other ☐

NUMBER* of bottles ☐

Annual usage ☐ **Delivery Quantity** ☐

Delivery Frequency

Shelf life (if known) ☐

Comments/Notes .....

.....

.....

.....

.....

YOUR INFORMATION

Name* .....

Title .....

Company* .....

City* ..... ***State/Prov*** .....

Zip/Postal Code* ..... ***Country**** .....

Telephone* ..... ***Fax*** .....

E-mail* .....

Please photocopy, complete the information requested and fax to your local distributor or CPAchem at: +359 42 607 716

www.cpachem.com

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mobile: (+359) 886 796501
Tel./fax: (+359) 42 607716
E-mail: info@cpachem.com
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