

**ANALYTICAL
STANDARDS
AND REAGENTS**

**PHARMACOPOEIA
PRODUCTS**

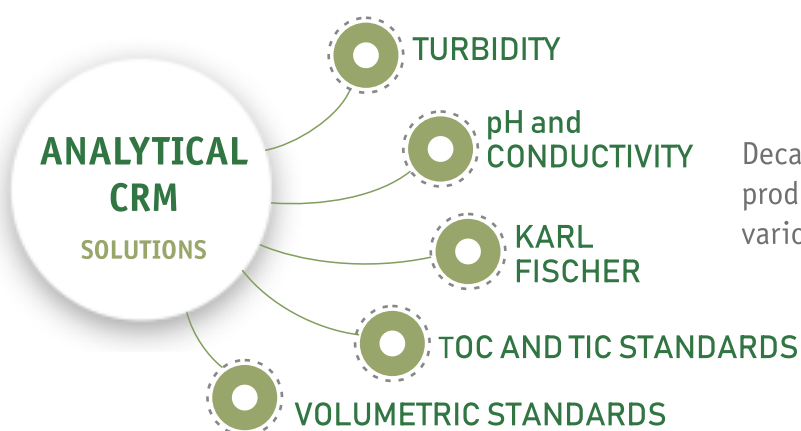
CPAchem

ISO 17034

ISO/IEC 17025

ISO 9001

PRODUCT PORTFOLIO

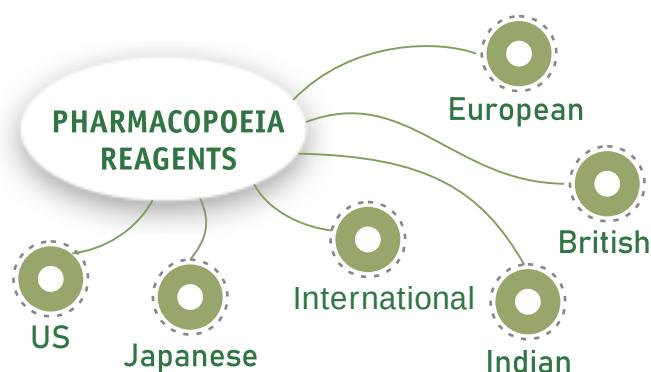


Decades of experience are brought in the production of certified reference materials to various analytical techniques.

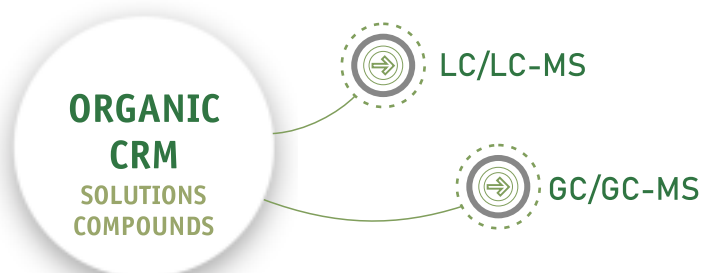
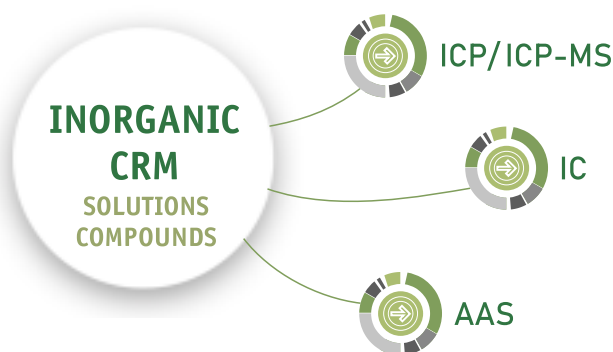
CPAchem is the only producer in the world offering products according to six different pharmacopoeias. Pharmacopoeia reagents are prepared according to the latest Pharmacopoeia recipes.

Pharmacopoeia products, designed for:

- GC and HPLC are to be found in our Organic catalogue;
- AAS, ICP and Ion Chromatography in our Inorganic catalogue.



Apart from the above products **CPAchem** produces Inorganic and Organic Certified Reference materials.



CUSTOM PRODUCTS

CPAchem is the world leader in production of Custom-made standards.

Nowadays more than 6000 laboratories in more than 100 countries worldwide use our standards.

The custom-made standards are prepared to exactly match clients' needs and give them opportunities to quickly achieve their goals.

Cost-effective solutions



Short lead time for preparation



2-5 business days delivery



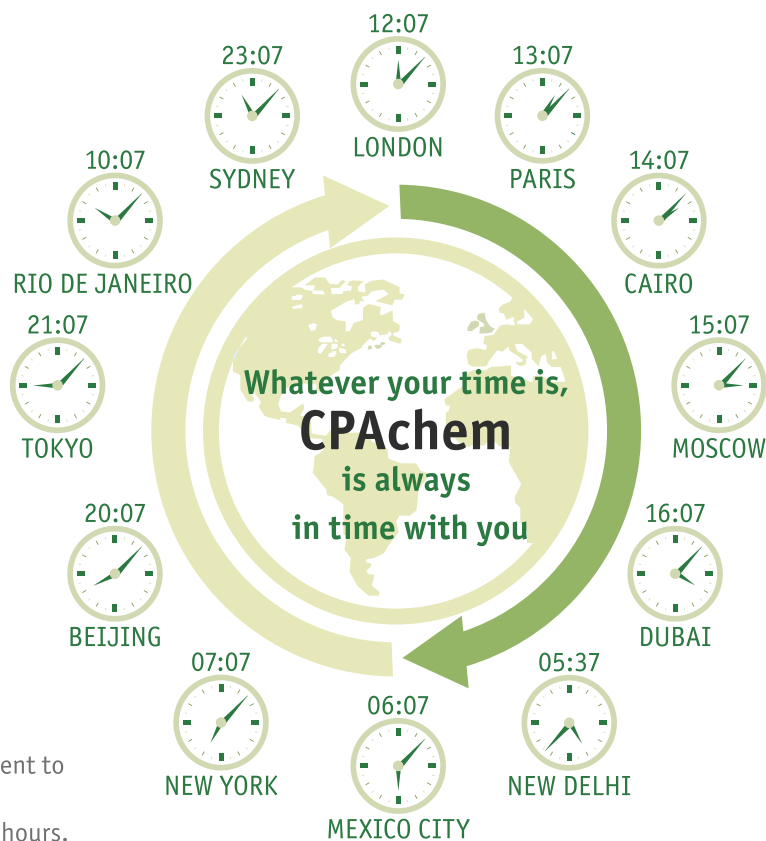
24 hour Emergency orders



TECHNOLOGY

CPAchem relies mainly on a very knowledgeable and creative team of chemists who together with software engineers developed unique Computer-Aided Manufacturing software which performs and controls the whole production process. The company has been constantly investing in high-tech apparatuses.

All these guarantee that **CPAchem** is always in time with its customers.



All customer inquiries sent to sales@cpachem.com are answered within 24 hours.

ACCREDITATION AND QUALITY

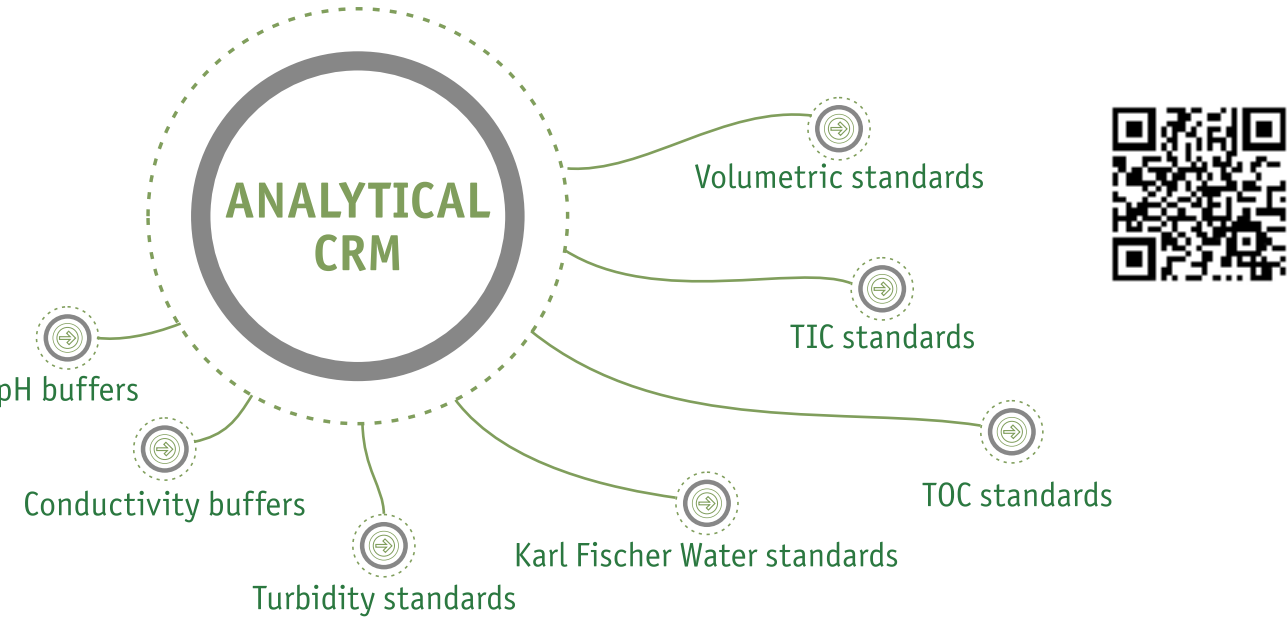
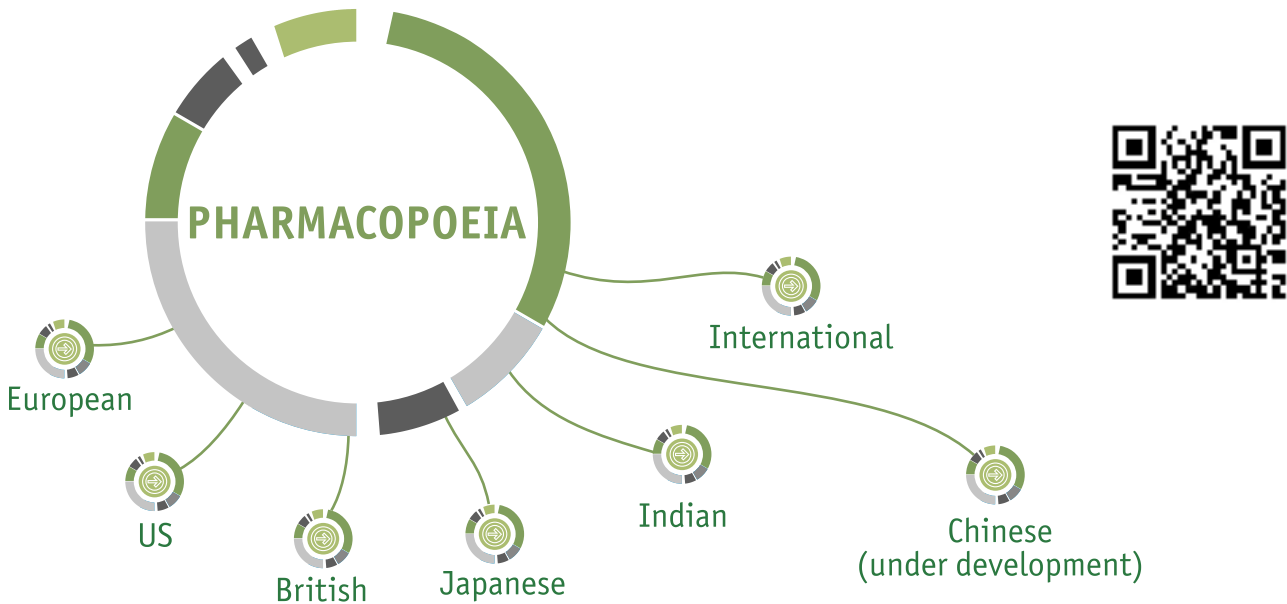
CPAchem has the highest achievable quality level for reference material producers with one of the broadest accreditation scopes in the world.



The main priority of **CPAchem's** management is to guarantee the best professional practice and quality throughout all stages of the production process, storage and distribution. The biggest proof for the quality of our products is that the percentage of valid claims has always been kept below 0.3%.

BROWSE PRODUCTS AND PRICES

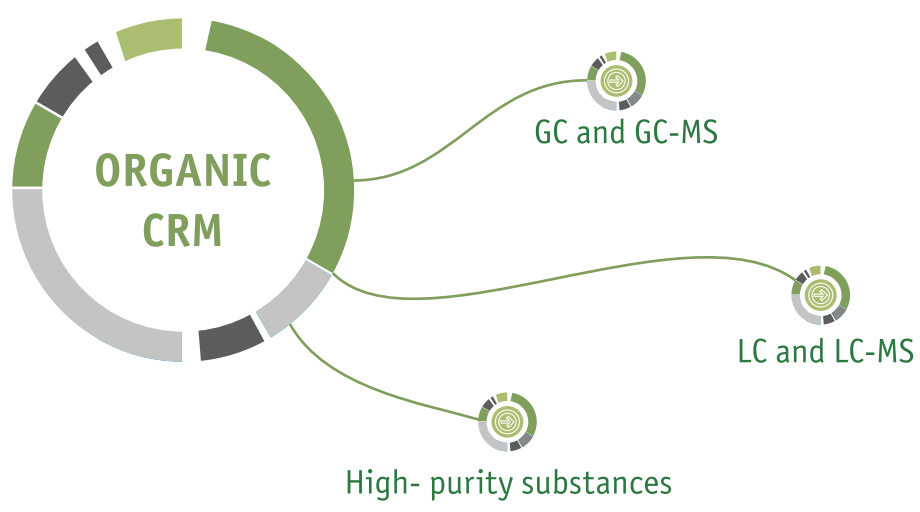
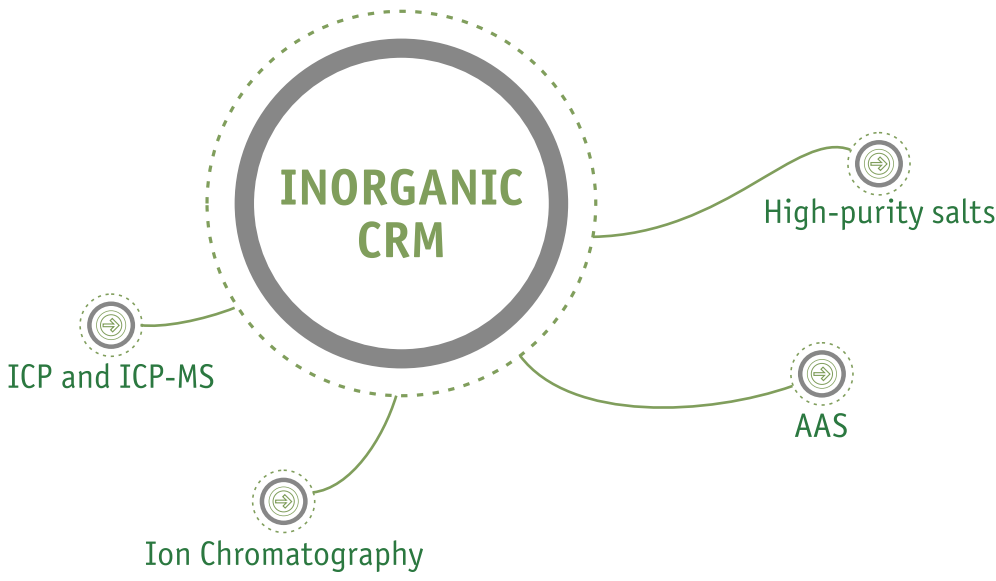
As **CPAchem** has been constantly adding products to its portfolio, browse the actual products and prices at www.cpachem.com



**CUSTOM ANALYTICAL PRODUCTS
INQUIRIES**

BROWSE PRODUCTS AND PRICES

As **CPAchem** has been constantly adding products to its portfolio, browse the actual products and prices at www.cpachem.com



**CUSTOM INORGANIC PRODUCTS
INQUIRIES**



**CUSTOM ORGANIC PRODUCTS
INQUIRIES**



CONTENTS

ANALYTICAL STANDARDS AND REAGENTS	3
CONDUCTIVITY STANDARD SOLUTIONS	5
pH-BUFFER SOLUTIONS	6
PRIMARY pH-BUFFER SOLUTIONS	6
SECONDARY pH-BUFFER SOLUTIONS	6
COLOUR CODED pH-BUFFER SOLUTIONS	7
REFERENCE pH-BUFFER SOLUTIONS	7
ANALYTICAL VOLUMETRIC SOLUTIONS	8
CONCENTRATED VOLUMETRIC SOLUTIONS	11
KARL FISCHER STANDARDS	12
TURBIDITY STANDARD SOLUTIONS	12
TOC STANDARDS	13
TIC STANDARDS	13
REAGENTS	14
BEVERAGES CONTROL	14
STANDARDS OF ETHANOL IN WATER	14
E-CIGARETTE	14
EUROPEAN PHARMACOPOEIA PRODUCTS	15
OPALESCENCE AND COLORATION SOLUTIONS	17
CLARITY AND DEGREE OF OPALESCENCE OF LIQUIDS	17
DEGREE OF COLORATION OF LIQUIDS	17
SOLUTIONS FOR ABSORPTION SPECTROPHOTOMETRY, ULTRAVIOLET AND VISIBLE	17
EUROPEAN PHARMACOPOEIA	18
REAGENTS	18
STANDARD SOLUTIONS	26
BUFFER SOLUTIONS	28
PRIMARY STANDARDS FOR VOLUMETRIC SOLUTIONS	32
VOLUMETRIC SOLUTIONS	32
U.S. PHARMACOPOEIA PRODUCTS	35
REAGENTS, INDICATORS AND SOLUTIONS	37
SOLUTIONS ACC. TO REAGENT SPECIFICATIONS	37

BUFFER SOLUTIONS	38
COLORIMETRIC SOLUTIONS (CS)	40
INDICATOR SOLUTIONS	40
VOLUMETRIC SOLUTIONS	40
TEST SOLUTIONS	42
INDICATORS AND TEST PAPERS	47
GENERAL TESTS FOR REAGENTS	48
BRITISH PHARMACOPOEIA PRODUCTS	49
APPENDIX I A. GENERAL REAGENTS	51
APPENDIX I B. VOLUMETRIC REAGENTS AND SOLUTIONS	59
PRIMARY STANDARDS	59
VOLUMETRIC SOLUTIONS	59
APPENDIX I C. STANDARD SOLUTIONS	61
APPENDIX I D. BUFFER SOLUTIONS	64
APPENDIX IV A. CLARITY OF SOLUTION	68
APPENDIX IV B. COLOUR OF SOLUTION	68
PRIMARY SOLUTIONS	68
OPALESCEENCE AND COLORATION SOLUTIONS	68
JAPANESE PHARMACOPOEIA PRODUCTS	69
STANDARD SOLUTIONS FOR VOLUMETRIC ANALYSIS	71
STANDARD SOLUTIONS	72
MATCHING FLUIDS FOR COLOR	73
REAGENTS, TEST SOLUTIONS	74
INDIAN PHARMACOPOEIA PRODUCTS	85
STANDARD BUFFER SOLUTIONS	87
GENERAL REAGENTS	88
INDICATORS AND INDICATORS TEST PAPERS	93
STANDARD SOLUTIONS	94
VOLUMETRIC REAGENTS AND SOLUTIONS	95
MOLAR SOLUTIONS	95
PREPARATION AND STANDARDISATION OF VOLUMETRIC SOLUTIONS	95
PRIMARY STANDARDS	96
INTERNATIONAL PHARMACOPOEIA PRODUCTS	97

Analytical Standards and Reagents

Analytical Standards and Reagents

Conductivity Standard Solutions

These solutions are CRMs under ISO 17034 and ISO/IEC 17025.
Traceability to International System of Units from NIST.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
CS0M0S.L25	Conductivity water (nominal 0 - 2 uS/cm) traceable to NIST	250	ml
CS5M0S.L5	Conductivity Standard 5 uS/cm at 25°C in 30% n-propanol	500	ml
CS10M0S.L5	Conductivity Standard 10 uS/cm at 25°C in 30% n-propanol	500	ml
CS15M0S.L5	Conductivity Standard 15 uS/cm at 25°C in 30% n-propanol	500	ml
CS20M0S.L5	Conductivity Standard 20 uS/cm at 25°C	500	ml
CS25M0S.L5	Conductivity Standard 25 uS/cm at 25°C	500	ml
CS50M0S.L5	Conductivity Standard 50 uS/cm at 25°C	500	ml
CS84M0S.L5	Conductivity Standard 84 uS/cm at 25°C	500	ml
CS1P2S.L5	Conductivity Standard 100 uS/cm at 25°C	500	ml
CS111M3MS	Conductivity Standard 111.3 mS/cm at 25°C	500	ml
CS147M0S.L5	Conductivity Standard 147 uS/cm at 25°C	500	ml
CS2P2S.L5	Conductivity Standard 200 uS/cm at 25°C	500	ml
CS5P2S.L5	Conductivity Standard 500 uS/cm at 25°C	500	ml
CS718M0S.L5	Conductivity Standard 718 uS/cm at 25°C	500	ml
CS1P3S.L5	Conductivity Standard 1000 uS/cm at 25°C	500	ml
CS1413M0S.L5	Conductivity Standard 1413 uS/cm at 25°C	500	ml
CS15P2S.L5	Conductivity Standard 1500 uS/cm at 25°C	500	ml
CS2P3S.L5	Conductivity Standard 2000 uS/cm at 25°C	500	ml
CS3P3S.L5	Conductivity Standard 3000 uS/cm at 25°C	500	ml
CS5P3S.L5	Conductivity Standard 5000 uS/cm at 25°C	500	ml
CS1P4S.L5	Conductivity Standard 10000 uS/cm at 25°C	500	ml
CS1288P1S.L5	Conductivity Standard 12880 uS/cm at 25°C	500	ml
CS15P3S.L5	Conductivity Standard 15000 uS/cm at 25°C	500	ml
CS2P4S.L5	Conductivity Standard 20000 uS/cm at 25°C	500	ml
CS3P4S.L5	Conductivity Standard 30000 uS/cm at 25°C	500	ml
CS5P5S.L5	Conductivity Standard 50000 uS/cm at 25°C	500	ml
CS1P5S.L5	Conductivity Standard 100000 uS/cm at 25°C	500	ml
CS2P5S.L5	Conductivity Standard 200000 uS/cm at 25°C	500	ml
CS3P5S.L5	Conductivity Standard 300000 uS/cm at 25°C	500	ml
CS15P5S.L5	Conductivity Standard 150000 uS/cm at 25°C	500	ml

pH-buffer Solutions

Primary pH-buffer Solutions

These solutions are CRMs under ISO 17034 and ISO/IEC 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 created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
PH214	pH 1.679 at 25 C Potassium Tetraoxalate (Primary pH-buffer Solution)	500	ml
PH223	pH 3.557 at 25 C Potassium Hydrogen Tartrate (Primary pH-buffer Solution)	500	ml
PH215	pH 3.776 at 25 C Potassium Dihydrogen Citrate (Primary pH-buffer Solution)	500	ml
PH216	pH 4.008 at 25 C Potassium Hydrogen Phtalate (Primary pH-buffer Solution)	500	ml
PH217	pH 6.865 at 25 C Potassium Dihydrogen Phosphate/ Hydrogen Phosphate (Primary pH-buffer Solution)	500	ml
PH218	pH 7.413 at 25 C Potassium Dihydrogen Phosphate/ di-Sodium Hydrogen Phosphate (Primary pH-buffer Solution)	500	ml
PH219	pH 9.180 at 25 C Sodium Tetraborate (Primary pH-buffer Solution)	500	ml
PH220	pH 10.01 at 25 C Sodium Carbonate/Sodium Hydrogen Carbonate (Primary pH-buffer Solution)	500	ml

Secondary pH-buffer Solutions

These solutions are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
PH014.L5	pH 1.679 at 25 C Potassium Tetraoxalate	500	ml
PH014.1L		1000	ml
PH021.L5	pH 3.557 at 25 C Potassium Hydrogen Tartrate	500	ml
PH021.1L		1000	ml
PH015.L5	pH 3.776 at 25 C Potassium Dihydrogen Citrate	500	ml
PH015.1L		1000	ml
PH016.L5	pH 4.008 at 25 C Potassium Hydrogen Phtalate	500	ml
PH016.1L		1000	ml
PH017.L5	pH 6.865 at 25 C Potassium Dihydrogen Phosphate/ Hydrogen Phosphate	500	ml
PH017.1L		1000	ml
PH018.L5	pH 7.413 at 25 C Potassium Dihydrogen Phosphate/ di-Sodium Hydrogen Phosphate	500	ml
PH018.1L		1000	ml
PH019.L5	pH 9.180 at 25 C Sodium Tetraborate	500	ml
PH019.1L		1000	ml
PH020.L5	pH 10.01 at 25 C Sodium Carbonate/Sodium Hydrogen Carbonate	500	ml
PH020.1L		1000	ml

Colour Coded pH-buffer Solutions

These pH-buffers are colour coded for simplicity.
They are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
PH004.L5	pH 4.00 at 20 C coloured Citric acid/ Sodium Hydroxide/ Sodium Chloride	500	ml
PH004.1L		1000	ml
PH007.L5	pH 7.00 at 20 C coloured Potassium Dihydrogen Phosphate/di-Sodium Hydrogen Phosphate	500	ml
PH007.1L		1000	ml
PH010.L5	pH 10.00 at 20 C coloured Borax/Sodium Hydroxide	500	ml
PH010.1L		1000	ml

Reference pH-buffer Solutions

These solutions are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
PH101.L5	pH 1.00 at 20 C Glycine/ Sodium Chloride/ Hydrochloric Acid (not acc. to ISO 17034 and ISO 17025)	500	ml
PH101.1L		1000	ml
PH102.L5	pH 2.00 at 20 C Citric Acid/ Sodium Chloride/ Hydrochloric Acid	500	ml
PH102.1L		1000	ml
PH103.L5	pH 3.00 at 20 C Citric Acid/ Sodium Chloride/ Hydrochloric Acid	500	ml
PH103.1L		1000	ml
PH104.L5	pH 4.00 at 20 C Citric Acid/ Sodium Chloride/ Sodium Hydroxide	500	ml
PH104.1L		1000	ml
PH105.L5	pH 5.00 at 20 C Citric Acid/ Sodium Hydroxide	500	ml
PH105.1L		1000	ml
PH106.L5	pH 6.00 at 20 C Citric Acid/ Sodium Hydroxide	500	ml
PH106.1L		1000	ml
PH107.L5	pH 7.00 at 20 C di-Sodium Hydrogen Phosphate/ Potassium Dihydrogen Phosphate	500	ml
PH107.1L		1000	ml
PH108.L5	pH 8.00 at 20 C Boric Acid/ Sodium Chloride/ Sodium Hydroxide	500	ml
PH108.1L		1000	ml
PH109.L5	pH 9.00 at 20 C Boric Acid/ Potassium Chloride/ Sodium Hydroxide	500	ml
PH109.1L		1000	ml
PH110.L5	pH 10.00 at 20 C Boric Acide/ Potassium Chloride/ Sodium Hydroxide	500	ml
PH110.1L		1000	ml
PH111.L5	pH 11.00 at 20 C Boric Acide/ Potassium Chloride/ Sodium Hydroxide (not acc. to ISO 17034 and ISO 17025)	500	ml
PH111.1L		1000	ml
PH112.L5	pH 12.00 at 20 C di-Sodium Hydrogen Phosphate/ Sodium Hydroxide (not acc. to ISO 17034 and ISO 17025)	500	ml
PH112.1L		1000	ml
PH113.L5	pH 13.00 at 20 C Glycine/ Sodium Hydroxide/ Sodium Chloride (not acc. to ISO 17034 and ISO 17025)	500	ml
PH113.1L		1000	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.

The analytical volumetric solutions are CRMs under ISO 17034 and ISO/IEC 17025. Traceability to International System of Units from NIST.

Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
Z10141000	Acetic Acid 0.1M (0.1N)	500	ml
Z10144028	Acetic Acid 1M (1N)	500	ml
Z10141001	Acetic Acid 2M (2N)	500	ml
Z12271002	Ammonia (Ammonium Hydroxide) 0.1M (0.1N)	500	ml
Z12381003	Ammonium iron(III) Sulphate 0.1M	500	ml
Z12341004	Ammonium Sulphate 0.5M (1N)	500	ml
Z12351005	Ammonium Thiocyanate 0.1M (0.1N)	500	ml
Z12351006	Ammonium Thiocyanate 1M (1N)	500	ml
Z12461007	Barium Chloride 0.05M (0.1N)	500	ml
Z12491009	Benzethonium chloride 0.004M (0.004N)	500	ml
Z12491010	Benzethonium chloride 0.04M (0.04N)	500	ml
Z16001011	Bromine - Bromate/Bromide 0.05M (0.1N)	500	ml
Z12723012	Calcium Chloride 0.005M (0.01N)	500	ml
Z12723013	Calcium Chloride 0.01M (0.02N)	500	ml
Z12723014	Calcium Chloride 0.02M (0.04N)	500	ml
Z12724226	Calcium Chloride 0.1M (0.2N)	500	ml
Z12723015	Calcium Chloride 0.5M (1N)	500	ml
Z12801016	Cerium (IV) Sulphate 0.05M (0.05N)	500	ml
Z12801017	Cerium (IV) Sulphate 0.1M (0.1N)	500	ml
Z13071018	Copper (II) Sulphate 0.1M (0.1N)	500	ml
Z10311018	EDTA (disodium salt) 0.005M (0.01N)	500	ml
Z10311019	EDTA (disodium salt) 0.01M (0.02N)	500	ml
Z10311234	EDTA (disodium salt) 0.050M (0.100N)	500	ml
Z10311020	EDTA (disodium salt) 0.1M (0.2N)	500	ml
Z13411228	Hydrochloric Acid 0.01 M (0.01N)	500	ml
Z13414031	Hydrochloric Acid 0.02M (0.02N)	500	ml
Z13411022	Hydrochloric Acid 0.05M (0.05N)	500	ml
Z13411023	Hydrochloric Acid 0.1M (0.1N)	500	ml
Z13411024	Hydrochloric Acid 0.25M (0.25N)	500	ml
Z13411025	Hydrochloric Acid 0.2M (0.2N)	500	ml
Z13411026	Hydrochloric Acid 0.5M (0.5N)	500	ml
Z13411027	Hydrochloric Acid 1M (1N)	500	ml
Z13411028	Hydrochloric Acid 2M (2N)	500	ml
Z13411029	Hydrochloric Acid 5M (5N)	500	ml
Z13411030	Hydrochloric Acid 6M (6N)	500	ml
Z13411031	Hydrochloric Acid 10M (10N)	500	ml
Z13234185	Hydrofluoric acid 1N (1M)	500	ml
Z13504058	Iodine 0.005M (0.01N)	500	ml
Z13504057	Iodine 0.01M (0.02N)	500	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
Z13501034	Iodine 0.05M (0.1N)	500	ml
Z13504166	Iodine 0.1M (0.2 N)	500	ml
Z13501035	Iodine 0.5M (1N)	500	ml
Z13591036	Iron (II) Sulphate 0.1M	500	ml
Z13711037	Lead (II) Nitrate 0.01M (0.02N)	500	ml
Z13711038	Lead (II) Nitrate 0.5M (1N)	500	ml
Z13851039	Magnesium Chloride 0.01M (0.02N)	500	ml
Z13854102	Magnesium Chloride 1M (2N)	500	ml
Z13871236	Magnesium Sulphate 0.1M (0.1N)	500	ml
Z13874184	Magnesium Sulphate 1M (1N)	500	ml
Z14031040	Mercury (I) (Mercurous) Nitrate 0.1M (0.1N)	500	ml
Z14041041	Mercury (II) (Mercuric) Nitrate 0.01M (0.02N)	500	ml
Z14041042	Mercury (II) (Mercuric) Nitrate 0.05M (0.1N)	500	ml
Z14174160	Nickel (II) chloride 0.5M	500	ml
Z14223043	Nitric Acid 0.01M (0.01N)	500	ml
Z14224048	Nitric Acid 0.1M (0.1N)	500	ml
Z14223044	Nitric Acid 1M (1N)	500	ml
Z14223045	Nitric Acid 2M (2N)	500	ml
Z14223046	Nitric Acid 4M (4N)	500	ml
Z14224238	Nitric Acid 5M (5N)	500	ml
Z14224167	Nitric Acid 6M (6N)	500	ml
Z14223047	Nitric Acid 8M (8N)	500	ml
Z14291048	Oxalic Acid 0.025M (0.05N)	500	ml
Z14291049	Oxalic Acid 0.05M (0.1N)	500	ml
Z14294037	Oxalic Acid 0.5N (0.25M)	500	ml
Z14291050	Oxalic Acid 0.5M (1N)	500	ml
Z14331051	Perchloric Acid in Water 0.1M (0.1N)	500	ml
Z14331052	Perchloric Acid in Water 1M (1N)	500	ml
Z14423053	Potassium Bromate 1/60M (0.01667M) (0.1N)	500	ml
Z14431054	Potassium Bromide 0.5M (0.5N)	500	ml
Z14431055	Potassium Bromide 1M (1N)	500	ml
Z14461056	Potassium Chloride 0.5M (0.5N)	500	ml
Z14461057	Potassium Chloride 1M (1N)	500	ml
Z14464162	Potassium Chloride KCl 0.001M	500	ml
Z14464161	Potassium Chloride KCl 0.01M	500	ml
Z14464098	Potassium Chloride KCl 3M	250	ml
Z14471058	Potassium Chromate 1/30M (0.0333M)	500	ml
Z14411061	Potassium Dichromate 0.167M (1N)	500	ml
Z14411060	Potassium Dichromate 1/24M (0.0417M) (0.25N)	500	ml
Z14411059	Potassium Dichromate 1/60M (0.0167M) (0.1N)	500	ml
Z14651062	Potassium hydrogen phthalate 0.1M (0.1N)	500	ml
Z14571063	Potassium Hydroxide 0.05M (0.05N)	500	ml
Z14571065	Potassium Hydroxide 0.1M (0.1N)	500	ml
Z14571066	Potassium Hydroxide 0.5M (0.5N)	500	ml
Z14571069	Potassium Hydroxide 1M (1N)	500	ml
Z14571064	Potassium Hydroxide in ethanol 0.1M (0.1N)	500	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
Z14571070	Potassium Hydroxide in ethanol 0.5M (0.5N)	500	ml
Z14571068	Potassium Hydroxide in methanol 1M (1N)	500	ml
Z14581070	Potassium Iodate 0.0147M (0.08833N)	500	ml
Z14581071	Potassium Iodate 0.01667M (0.1N)	500	ml
Z14581072	Potassium Iodate 0.05M (0.3N)	500	ml
Z14591073	Potassium Iodide 0.1M (0.1N)	500	ml
Z14591074	Potassium Iodide 1M (1N)	500	ml
Z14591075	Potassium Iodide 3M (3N)	500	ml
Z14624145	Potassium nitrate 1M	500	ml
Z14641076	Potassium Permanganate 0.01M (0.05N)	500	ml
Z14641077	Potassium Permanganate 0.02M (0.1N)	500	ml
Z14641078	Potassium Permanganate 0.05M (0.25N)	500	ml
Z14641079	Potassium Permanganate 0.2M (1N)	500	ml
Z16031080	Potassium Thiocyanate 0.1M (0.1N)	500	ml
Z14941081	Silver Nitrate 0.01M (0.01N)	500	ml
Z14941082	Silver Nitrate 0.05M (0.05N)	500	ml
Z14941083	Silver Nitrate 0.1M (0.1N)	500	ml
Z14941085	Silver Nitrate 1M (1N)	500	ml
Z15031089	Sodium Carbonate 0.05M (0.1N)	500	ml
Z15031090	Sodium Carbonate 0.5M (1N)	500	ml
Z15084083	Sodium Chloride 0.01M (0.01N)	500	ml
Z15081091	Sodium Chloride 0.05M (0.05N)	500	ml
Z15081092	Sodium Chloride 0.1M (0.1N)	500	ml
Z15081093	Sodium Chloride 1M (1N)	500	ml
Z15171207	Sodium Hydroxide 0.01M (0.01N)	500	ml
Z15171094	Sodium Hydroxide 0.02M (0.02N)	500	ml
Z15171095	Sodium Hydroxide 0.1M (0.1N)	500	ml
Z15171098	Sodium Hydroxide 0.5M (0.5N)	500	ml
Z15171099	Sodium Hydroxide 1M (1N)	500	ml
Z15171100	Sodium Hydroxide 2M (2N)	500	ml
Z15171101	Sodium Hydroxide 4M (4N)	500	ml
Z15231102	Sodium Nitrite 0.1M (0.2N)	500	ml
Z15231104	Sodium Nitrite 0.5M (1N)	500	ml
Z15231105	Sodium Nitrite 1M (2N)	500	ml
Z15241107	Sodium Oxalate 0.05M (0.1N)	500	ml
Z16041108	Sodium Thiocyanate 0.1M (0.1N)	500	ml
Z15323109	Sodium Thiosulphate 0.01M (0.01N)	500	ml
Z15323110	Sodium Thiosulphate 0.05M (0.05N)	500	ml
Z15323111	Sodium Thiosulphate 0.1M (0.1N)	500	ml
Z15324193	Sodium Thiosulphate 0.5M (0.5N)	500	ml
Z15323112	Sodium Thiosulphate 1M (1N)	500	ml
Z15451113	Sulphuric Acid 0.05M (0.1N)	500	ml
Z15451114	Sulphuric Acid 0.1M (0.2N)	500	ml
Z15451117	Sulphuric Acid 0.5M (1N)	500	ml
Z15451116	Sulphuric Acid 1M (2N)	500	ml
Z15451118	Sulphuric Acid 2.5M (5N)	500	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
Z15451119	Sulphuric Acid 5M (10N)	500	ml
Z15871120	Zinc Chloride 0.1M (0.1N)	500	ml
Z15871123	Zinc Chloride 0.5M (0.5N)	500	ml
Z107304181	Zinc Sulphate 0.01M (0.01N)	500	ml
Z16051124	Zinc Sulphate 0.02 M (0.02 N)	500	ml
Z16051122	Zinc Sulphate 0.05M (0.05N)	500	ml
Z16051123	Zinc Sulphate 0.1M (0.1N)	500	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 International System of Units from NIST.

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.

Ref. Number	Description	Volume (other volumes also possible)	msr
CC1227002	Ammonia - concentrate to make 1L 1M solution	100	ml
CC1031005	EDTA - concentrate to make 1L 0.1M solution	100	ml
CC1031006	EDTA - concentrate to make 1L 0.01 M solution	100	ml
CC1031007	EDTA - concentrate to make 1L 0.005 M solution	100	ml
CC1031008	EDTA - concentrate to make 1L 0.05M solution	100	ml
CC1341007	Hydrochloric Acid - concentrate to make 1L 1M solution	100	ml
CC1341010	Hydrochloric Acid - concentrate to make 1L 0.1M (0.1N) solution	100	ml
CC1350011	Iodine - concentrate to make 1L 0.05M (0.1N) solution	100	ml
CC1350012	Iodine - concentrate to make 1L 0.025M (0.05 N) solution	100	ml
CC1350013	Iodine - concentrate to make 1L 0.005M (0.01 N) solution	100	ml
CC1422014	Nitric Acid - concentrate to make 1L 1M (1N) solution	100	ml
CC1422015	Nitric Acid 0.1 M (0.1N) concentrated solution	100	ml
CC1430011	Potassium Dichromate - concentrate to make 1L 1/60M (0.1N) solution	100	ml
CC14581071	Potassium iodate - concentrate to make 1L 1/60M (0.1N) solution	100	ml
CC1464016	Potassium Permanganate concentrate to make 1L 1/50M (0.1N) KMnO4	100	ml
CC1494018	Silver nitrate - Concentrate to make 1L 0.1M (0.1N) solution	100	ml
CC1517019	Sodium Hydroxide - concentrate to make 1L 1M (1N) solution	100	ml
CC1517021	Sodium Hydroxide -concentrate to make 1L 0.1M (0.1N) solution	100	ml
CC1517022	Sodium Hydroxide - concentrate to make 1L 0.01M (0.01N) solution	100	ml
CC1532023	Sodium Thiosulphate - concentrate to make 1L 0.1M (0.1N) solution	100	ml
CC1532024	Sodium Thiosulphate - concentrate to make 1L 0.01M (0.01N) solution	100	ml
CC1545025	Sulphuric Acide - concentrate to make 1L 0.5M (1N) solution	100	ml
CC1545026	Sulphuric Acid - concentrate to make 1L 0.1N solution	100	ml

Karl Fischer Standards

The Water Determination Standard is designed to determine water content in substances by Karl Fischer volumetric or coulometric determinations. These standards are CRMs under ISO 17034 and ISO/IEC 17025. Traceability to International System of Units from NIST. Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
KFV05STD	Karl Fischer volumetric Water Standard - 0.5%	250	ml
KF1PGME	Karl Fischer coulometric Water Standard 1% - 10 ampoules x 4g	4x10	g
KFV1STD	Karl Fischer volumetric Water Standard - 1%	500	ml
KFFSTD	Karl Fischer volumetric Fixed Water Standard - Sodium Tartrate Dihydrate (contains 15.66 +/- 0.05% H2O)	1	g

Turbidity Standard Solutions

These solutions are CRMs under ISO 17034 and ISO/IEC 17025. Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
TD1NTU.L1	Turbidity Standard 1 NTU (Formazin)	100	ml
TD1NTU.L5		500	ml
TD10NTU.L1	Turbidity Standard 10 NTU (Formazin)	100	ml
TD10NTU.L5		500	ml
TD15NTU.L1	Turbidity Standard 15 NTU (Formazin)	100	ml
TD15NTU.L5		500	ml
TD20NTU.L1	Turbidity Standard 20 NTU (Formazin)	100	ml
TD20NTU.L5		500	ml
TD50NTU.L1	Turbidity Standard 50 NTU (Formazin)	100	ml
TD50NTU.L5		500	ml
TD100NTU.L1	Turbidity Standard 100 NTU (Formazin)	100	ml
TD100NTU.L5		500	ml
TD200NTU.L1	Turbidity Standard 200 NTU (Formazin)	100	ml
TD200NTU.L5		500	ml
TD500NTU.L1	Turbidity Standard 500 NTU (Formazin)	100	ml
TD500NTU.L5		500	ml
TD750NTU.L1	Turbidity Standard 750 NTU (Formazin)	100	ml
TD750NTU.L5		500	ml
TD1000NTU.L1	Turbidity Standard 1000 NTU (Formazin)	100	ml
TD1000NTU.L5		500	ml
TD2000NTU.L1	Turbidity Standard 2000 NTU (Formazin)	100	ml
TD2000NTU.L5		500	ml
TD4000NTU.L1	Turbidity Standard 4000NTU (Formazin)	100	ml
TD4000NTU.L5		500	ml

TOC Standards

These standards are CRMs under ISO 17034 and ISO/IEC 17025.
Traceability to International System of Units from BAM.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
TOC5.L1	TOC Standard Solution (as potassium hydrogen phthalate) 5 mg/l	100	ml
TOC5.L5		500	ml
TOC10.L1	TOC Standard Solution (as potassium hydrogen phthalate) 10 mg/l	100	ml
TOC10.L5		500	ml
TOC50.L1	TOC Standard Solution (as potassium hydrogen phthalate) 50 mg/l	100	ml
TOC50.L5		500	ml
TOC100.L1	TOC Standard Solution (as potassium hydrogen phthalate) 100 mg/l	100	ml
TOC100.L5		500	ml
TOC200.L1	TOC Standard Solution (as potassium hydrogen phthalate) 200 mg/l	100	ml
TOC200.L5		500	ml
TOC500.L1	TOC Standard Solution (as potassium hydrogen phthalate) 500 mg/l	100	ml
TOC500.L5		500	ml
TOC1000.L1	TOC Standard Solution (as potassium hydrogen phthalate) 1000 mg/l	100	ml
TOC1000.L5		500	ml
TOC2000.L1	TOC Standard Solution (as potassium hydrogen phthalate) 2000 mg/l	100	ml
TOC2000.L5		500	ml

TIC Standards

These standards are CRM's under ISO 17034 and ISO/IEC 17025.
Traceability to International System of Units from BAM.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
TIC1000.L1	TIC Standard Solution (as sodium carbonate) 1000mg/l	100	ml
TIC1000.L5		500	ml
TIC10000.L1	TIC Standard Solution (as sodium carbonate) 10000mg/l	100	ml
TIC10000.L5		500	ml

Reagents

Beverages Control

These standards are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
F367450	Caffeine [CAS:58-08-2] 0.05mg/ml in Water	50	ml
F367440	Caffeine [CAS:58-08-2] 0.1mg/ml in Water	50	ml
F367430	Caffeine [CAS:58-08-2] 0.15mg/ml in Water	50	ml
F367420	Caffeine [CAS:58-08-2] 0.2mg/ml in Water	50	ml
F367500	2 components; 50g/l each of Fructose [CAS:57-48-7] ; Glucose [CAS:50-99-7] in Water	50	ml
F367480	Glucose [CAS:50-99-7] 100g/l in Water	50	ml
F367490	Sucrose [CAS:57-50-1] 100g/l in Water	50	ml

Standards of Ethanol in Water

These standards are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
Z03644114	Ethanol 20% (v/v)	100	ml
Z03644115	Ethanol 30% (v/v)	100	ml
Z03644121	Ethanol 50% (v/v)	100	ml
Z03644116	Ethanol 60% (v/v)	100	ml
Z03644117	Ethanol 70% (v/v)	100	ml
Z03644118	Ethanol 80% (v/v)	100	ml
Z03644119	Ethanol 90% (v/v)	100	ml
KET1	Kit of ethanolic solutions 9%; 11.50%; 14%	3x100	ml
KET1a	Kit of ethanolic solutions 5%, 9%; 11.50%; 14%	4x100	ml
KET2	Kit of ethanolic solutions 35%, 40%; 45%	3x100	ml
KET3	Kit of ethanolic solutions 50%, 60%; 70%, 80%	3x100	ml
KET7	Standard Wine Material	750	ml

E-cigarette

These standards are CRMs under ISO 17034 and ISO/IEC 17025.
Certificate of analysis created in accordance with ISO Guide 31 and ISO Guide 35.

Ref. Number	Description	Volume (other volumes also possible)	msr
RD00265210	3 components; Propylene glycol [CAS:57-55-6] 49.5% w/w ; Glycerol [CAS:56-81-5] 49.5% w/w ; Nicotine [CAS:54-11-5] 1% w/w	10	g
RD002652L1	3 components; Propylene glycol [CAS:57-55-6] 49.5% w/w ; Glycerol [CAS:56-81-5] 49.5% w/w ; Nicotine [CAS:54-11-5] 1% w/w	100	g

European Pharmacopoeia products

Opalescence and Coloration Solutions

These solutions are specially intended for use in testing Ph Eur and monographs. These solutions are produced 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 Certificate of Analysis.

Clarity and degree of opalescence of liquids

Ref. Number	Description	Volume (other volumes also possible)	msr
OP001	Primary opalescent suspension	100	ml
OP002	Hydrazine sulfate solution	100	ml
OP003	Hexamethylenetetramine solution	100	ml

Degree of coloration of liquids

Ref. Number	Description	Volume (other volumes also possible)	msr
B005	Standard solution B (brown)	125	ml
B105	Colour Reference Solutions B acc. to Ph. Eur. (9x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl))	9x10 + 1x10 ml	ml
BY006	Standard solution BY (brownish yellow)	125	ml
BY106	Colour Reference Solutions BY - BY1-BY7 acc. to Ph. Eur. (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10 ml	ml
CB004	Blue Primary solution	100	ml
CR003	Primary Red solution	100	ml
CY002	Primary Yellow solution	100	ml
DM015	Hydrochloric Acid (Dilution Matrix)	1000	ml
GY008	Standard solution GY (greenish yellow)	125	ml
GY108	Colour Reference Solutions GY GY1-GY7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10 ml	ml
R009	Standard solution R (red)	125	ml
R109	Colour Reference Solutions R acc. to Ph. Eur. R1-R7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10 ml	ml
Y007	Standard solution Y (yellow)	125	ml
Y107	Colour Reference Solutions Y acc. to Ph. Eur. Y1-Y7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10 ml	ml

Solutions for Absorption Spectrophotometry, Ultraviolet and Visible

Ref. Number	Description	Volume (other volumes also possible)	msr
RIIOW	Refractive Index Standard Kit : 5x8 ml Isooctane and 5x8 ml Water	80	ml
RITW	Refractive Index Standard Kit : 5x8 ml Toluene and 5x8 ml Water	80	ml
UV2225KCl	Potassium Chloride Solution for Stray Light Limit acc. 2.2.25 of Ph Eur	30	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
UV2225KNaI	Sodium Iodide Solution for Stray Light Testing 3 x 10 ml	30	ml
UV2225KNaNi	Sodium Nitrite Solution for Stray Light Testing 3 x 10 ml	30	ml
UV2225PDA	Set of 2x10 ml Potassium Dichromate Solution for Absorbance Control 235 - 350 nm and 6x10 ml blank	80	ml
UV2225PDB	Set of 2x10 ml Potassium Dichromate Solution for Absorbance Control at 430 nm and 6x10 ml blank	80	ml
UV2225R	Set of 2x10 ml Toluene/ Hexane Solution for Resolution (for qualitative analysis) and 6x10 ml Blank	80	ml
UV2225WL	Holmium Oxide Solution for Wavelengths Control	30	ml

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 Certificate of Analysis. The identity of CPAchem's 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

Ref. Number	Description	Volume (other volumes also possible)	msr
1001501	30 per cent acrylamide/bisacrylamide (29:1) solution	100	ml
1001502	30 per cent acrylamide/bisacrylamide (36.5:1) solution	100	ml
1125200	2,4 prime-DDD [CAS:53-19-0] 10 ug/ml in Cyclohexane	10	ml
1125400	2,4 prime-DDE [CAS:3424-82-6] 10 ug/ml in Cyclohexane	10	ml
1125600	2,4 prime-DDT [CAS:789-02-6] 10 ug/ml in Cyclohexane	10	ml
1097501	2-Chloroethanol solution	50	ml
1125300	4,4 prime-DDD (TDE) [CAS:72-54-8] 10 ug/ml in Cyclohexane	10	ml
1125700	4,4 prime-DDT [CAS:50-29-3] 10 ug/ml in Cyclohexane	10	ml
1125500	4,4'-DDE [CAS:72-55-9] 10 ug/ml in Cyclohexane	10	ml
1003301	4-Aminobenzoic Acid Solution - Solution A	100	ml
1000401	Acetic acid 30%	1000	ml
1000402	Acetic acid, dilute	1000	ml
1000403	Acetic acid, dilute R1	1000	ml
1000501	Acetic anhydride solution R1	1000	ml
1000901	Acetylacetone reagent R1	100	ml
1000902	Acetylacetone reagent R2	100	ml
1001401	Acid blue 92 solution	100	ml
1134201	Acid blue 93 solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1002501	Alcohol, aldehyde - free	1000	ml
1123100	Aldrin [CAS:309-00-2] 10 ug/ml in Cyclohexane	10	ml
1002601	Alizarin S solution	100	ml
1002702	Aluminium chloride reagent	1000	ml
1002701	Aluminium chloride solution	100	ml
1003101	Amido black 10B solution	100	ml
1003701	Aminohippuric acid reagent	100	ml
1003901	Aminomethylalizarindiacetic Acid Reagent (Sol A+B+C)	50+50+100	ml
1003902	Aminomethylalizarindiacetic Acid Solution	1000	ml
1004601	Aminopyrazolone solution	100	ml
1004701	Ammonia	1000	ml
1004702	Ammonia, dilute R1	1000	ml
1004703	Ammonia, dilute R2	1000	ml
1004704	Ammonia, dilute R3	1000	ml
1004706	Ammonia, dilute R4	1000	ml
1004705	Ammonia, lead-free	1000	ml
1005201	Ammonium carbonate solution	1000	ml
1005202	Ammonium carbonate solution R1	100	ml
1005301	Ammonium chloride solution	1000	ml
1005702	Ammonium molybdate solution	1000	ml
1005703	Ammonium molybdate solution R2	1000	ml
1005704	Ammonium molybdate solution R3 (I+II)	200+800	ml
1005709	Ammonium Molybdate Solution R6	100	ml
1005801	Ammonium nitrate R1	100	g
1005901	Ammonium oxalate solution	1000	ml
1006701	Ammonium Thiocyanate	1000	ml
1006801	Ammonium vanadate solution	100	ml
1007301	Anisaldehyde solution	100	ml
1007302	Anisaldehyde solution R1	100	ml
1007701	Antimony trichloride solution	100	ml
1007702	Antimony Trichloride Solution R1 (Solution A)	100	ml
1008301	Arsenite solution	100	ml
1008401	Ascorbic acid solution	100	ml
1008701	Azomethine H solution	100	ml
1009301	Barium chloride solution R1	1000	ml
1009302	Barium chloride solution R2	1000	ml
1009401	Barium hydroxide solution	1000	ml
1103801	Bisbenzimidazole stock solution	100	ml
1011502	Bismuth subnitrate solution	500	ml
1011601	Biuret reagent	1000	ml
1122400	Blocking Solution	1000	ml
1033601	Borate solution	1000	ml
1011801	Boric acid solution, saturated, cold	100	ml
1012401	Bromine solution	100	ml
1012402	Bromine water	100	ml
1012602	Bromocresol green- methyl red solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1012601	Bromocresol green solution	100	ml
1012701	Bromocresol purple solution	100	ml
1012801	Bromophenol blue solution	100	ml
1012802	Bromophenol blue solution R1	100	ml
1012803	Bromophenol blue solution R2	100	ml
1012901	Bromothymol blue solution R1	100	ml
1012902	Bromothymol blue solution R2	100	ml
1012903	Bromothymol blue solution R3	100	ml
1012904	Bromothymol blue solution R4	100	ml
1013000	BRP indicator solution	100	ml
1014601	Calcium chloride solution	1000	ml
1014602	Calcium chloride solution 0.01M	1000	ml
1014604	Calcium chloride solution 0.025M	1000	ml
1014603	Calcium chloride solution 0.02M	1000	ml
1015201	Calcium Sulfate solution	100	ml
1015301	Calconecarboxylic acid triturate	50	g
1017901	Chloral hydrate solution	100	ml
1124100	Chlordane (technical) [CAS:57-74-9] 10 ug/ml in Iso-octane	10	ml
1124200	Chlorfenvinphos [CAS:470-90-6] 10 ug/ml in Cyclohexane	10	ml
1018601	Chloroform, acidified	100	ml
1020201	Chromotrope IIB Solution	100	ml
1020302	Chromotropic Acid-Sulphuric Acid Solution	100	ml
1022002	Congo red paper	1	pack of 50
1022001	Congo red solution	100	ml
1012201	Coomassie Staining Solution	100	ml
1173000	Coomassie Staining Solution R1	100	ml
1022300	Copper edetate solution	1000	ml
1022501	Copper sulfate solution	1000	ml
1022600	Copper tetrammine, ammoniacal solution of	100	ml
1022801	Cresol red solution	100	ml
1022901	Crystal violet solution	100	ml
1023100	Cupri-citric solution	1000	ml
1023200	Cupri-citric solution R1	1000	ml
1023300	Cupri-tartaric solution (I+II)	500+500	ml
1023304	Cupri-tartaric solution R4 (I+II)	500+500	ml
1125100	Cypermethrin [CAS:52315-07-8] 10ug/ml in Cyclohexane	10	ml
1128500	Delta-HCH (delta-Hexachlorocyclohexane) [CAS:319-86-8] 10 ug/ml in Cyclohexane	10	ml
1125800	Deltamethrin [CAS:52918-63-5] 10 ug/ml in Cyclohexane	10	ml
1012202	Destaining solution	1000	ml
1122500	Developer solution	500	ml
1125900	Diazinon [CAS:333-41-5] 10ug/ml in Iso-octane	10	ml
1027001	Dichloroacetic acid solution	500	ml
1126200	Dieldrin [CAS:60-57-1] 10 ug/ml in Cyclohexane	10	ml
1029901	4-Dimethylaminocinnamaldehyde solution (concentrate to be diluted)	100	ml
1029803	Dimethylaminobenzaldehyde solution R6	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1029806	Dimethylaminobenzaldehyde solution R9	10	ml
1031101	Dimidium bromide-sulphan blue mixed solution	500	ml
1031201	Dinitrobenzene solution	1000	ml
1031301	Dinitrobenzoic acid solution	1000	ml
1032002	Dioxan solution	100	ml
1032003	Dioxan solution R1	50	ml
1032004	Dioxan solution R2	50	ml
1032001	Dioxan stock solution	100	ml
1032101	Diphenylamine solution	1000	ml
1032102	Diphenylamine solution R1	1000	ml
1032601	Diphenylcarbazone mercuric reagent (I+II)	100+100	ml
1033301	Disodium hydrogen phosphate solution	1000	ml
1126700	Ditalimfos [CAS:5131-24-8] 10 ug/ml in Acetonitrile	10	ml
1033903	Dithizone solution R2	100	ml
1034001	Divanadium pentoxide solution in sulphuric acid	100	ml
1126800	Endosulfan-alpha [CAS:959-98-8] 10 ug/ml in Cyclohexane	10	ml
1126900	Endosulfan-beta [CAS:33213-65-9] 10 ug/ml in Cyclohexane	10	ml
1127000	Endrin [CAS:72-20-8] 10 ug/ml in Cyclohexane	10	ml
1035201	Ethoxychrysoidine solution	100	ml
1035301	Ethyl acetate, treated	1000	ml
1036407	Ethylene oxide solution R4	50	ml
1036408	Ethylene oxide solution R5	10	ml
1036401	Ethylene oxide stock solution	10	ml
1036406	Ethylene oxide stock solution R1	10	ml
1127300	Fenvalerate [CAS:51630-58-1] 10ug/ml in Cyclohexane	10	ml
1037702	Ferric ammonium sulphate R2	1000	ml
1037704	Ferric ammonium sulphate R5	100	ml
1037705	Ferric ammonium sulphate R6	100	ml
1037801	Ferric chloride solution R1	1000	ml
1037802	Ferric chloride solution R2	1000	ml
1037803	Ferric chloride solution R3	100	ml
1037804	Ferric chloride-sulphamic acid reagent	1000	ml
1037901	Ferric sulfate solution	1000	ml
1038100	Ferroin	100	ml
1122600	Fixing solution	500	ml
1138700	Fixing solution for isoelectric focusing in polyacrylamide gel	500	ml
1039101	Formaldehyde solution	100	ml
1039201	Formamide, treated	100	ml
1039401	Fuchsin solution, decolorised	100	ml
1039402	Fuchsin solution, decolorised R1	100	ml
1039900	Gastric juice, artificial	1000	ml
1043101	Holmium perchlorate solution	1000	ml
1118901	Hydrobromic acid, dilute R1	1000	ml
1043507	Hydrochloric acid, brominated	100	ml
1043503	Hydrochloric acid, dilute	1000	ml
1043504	Hydrochloric acid, dilute R1	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1043505	Hydrochloric acid, dilute R2	1000	ml
1043509	Hydrochloric acid, dilute, heavy metal-free	1000	ml
1043506	Hydrochloric acid, ethanolic	1000	ml
1043508	Hydrochloric acid, lead-free	100	ml
1043511	Hydrochloric Acid, Methanolic	1000	ml
1043501	Hydrochloric acid, R1	1000	ml
1044101	Hydroquinone solution	100	ml
1044304	Hydroxylamine hydrochloride solution R2	100	ml
1044301	Hydroxylamine solution, alcoholic	100	ml
1044302	Hydroxylamine solution, alkaline (I+II)	500+500	ml
1044303	Hydroxylamine solution, alkaline R1 (I+II)	100+100	ml
1045200	Hypophosphorous reagent	100	ml
1045601	Indigo carmine solution	100	ml
1045602	Indigo carmine solution R1	1000	ml
1045901	Iodine bromide solution	1000	ml
1143001	Iodine Chloride Solution	100	ml
1045806	Iodine solution R4	1000	ml
1045807	Iodine solution R5	1000	ml
1045804	Iodine solution, alcoholic	1000	ml
1045805	Iodine solution, chloroformic	1000	ml
1046300	Iodoplatinate reagent	200	ml
1046700	Iron salicylate solution	500	ml
1046801	Isatin Reagent	100	ml
1128700	Isodrin [CAS:465-73-6] 10 ug/ml in Cyclohexane	10	ml
1047801	Lactic reagent	100	ml
1125000	lambda-Cyhalothrin [CAS:91465-08-6] 10 ug/ml in Cyclohexane	10	ml
1114001	Lanthanum chloride solution	1000	ml
1048001	Lanthanum nitrate solution	1000	ml
1048101	Lead acetate cotton	10	g
1048102	Lead acetate paper	1	pack of 50
1048103	Lead acetate solution	1000	ml
1048301	Lead nitrate solution	1000	ml
1048400	Lead subacetate solution	100	ml
1049301	Litmus paper, blue	1	pack of 50
1049302	Litmus paper, red	1	pack of 50
1049801	Magnesium nitrate solution	1000	ml
1049802	Magnesium nitrate solution R1 (10 times concentrated)	100	ml
1049901	Magnesium oxide R1	100	g
1050501	Malachite green solution	1000	ml
1129200	Malathion [CAS:121-75-5] 10ug/ml in Iso-octane	10	ml
1121701	m-Cresol purple solution	100	ml
1052001	Mercuric acetate solution	100	ml
1052101	Mercuric bromide paper	1	pack of 50
1052201	Mercuric chloride solution	100	ml
1052600	Mercuric sulphate solution	100	ml
1052801	Mercury, nitric acid solution of	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1052901	Metanil Yellow Solution	100	ml
1053300	Methanol, Aldehyde-free	1000	ml
1053400	Methanol, Anhydrous	1000	ml
1053203	Methanol, hydrochloric	100	ml
1053601	Methoxyphenylacetic Acid Reagent	30	ml
1154100	Methyl 4-acetylbenzoate reagent	100	ml
1154101	Methyl 4-acetylbenzoate reagent	100	ml
1054801	Methyl orange mixed solution	100	ml
1054802	Methyl orange solution	100	ml
1055101	Methyl red mixed solution	100	ml
1055102	Methyl red solution	100	ml
1055801	Methylene blue solution	100	ml
1055901	Methylene chloride, acidified	100	ml
1158501	Methylthymol blue mixture	50	g
1056700	Molybdovanadic reagent	100	ml
1056801	Mordant black 11 triturate	100	g
1056802	Mordant black 11 triturate R1	100	g
1057601	Naphtolbenzein solution	100	ml
1058201	Nile blue A solution	100	ml
1058301	Ninhydrin and stannous chloride reagent	100	ml
1058302	Ninhydrin and stannous chloride reagent R1 (A +B) - old Ph Eur edition	100+100	ml
1058303	Ninhydrin solution	100	ml
1058304	Ninhydrin solution R1	100	ml
1058305	Ninhydrin solution R2	100	ml
1058306	Ninhydrin solution R3	100	ml
1058307	Ninhydrin solution R4	100	ml
1058402	Nitric acid, dilute	100	ml
1058407	Nitric acid, dilute R1	100	ml
1058409	Nitric acid, dilute R2	100	ml
1058410	Nitric acid, dilute, heavy metal-free	100	ml
1058406	Nitric acid, lead-free, dilute	100	ml
1059100	Nitrochromic reagent	100	ml
1060100	Nitro-molybdovanadic reagent	500	ml
1061401	Oxalic acid and sulphuric acid solution	1000	ml
1061501	Palladium chloride solution (to be diluted)	100	ml
1062201	Pararosaniline decolorised solution	100	ml
1062901	Perchloric acid solution	100	ml
1063000	Periodic acetic acid solution	100	ml
1063601	Phenol red solution	100	ml
1063603	Phenol red solution R2	500	ml
1063604	Phenol red solution R3	500	ml
1063704	Phenolphthalein paper	1	pack of 50
1063702	Phenolphthalein solution	100	ml
1063703	Phenolphthalein solution R1	100	ml
1064501	Phenylhydrazine hydrochloride solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1064601	Phloroglucinol solution	20	ml
1065000	Phosphomolybdotungstic reagent	100	ml
1065001	Phosphomolybdotungstic reagent, dilute	100	ml
1065101	Phosphoric acid, dilute	1000	ml
1065102	Phosphoric acid, dilute R1	1000	ml
1065200	Phosphotungstic acid solution	100	ml
1065801	Picric acid solution	100	ml
1065802	Picric acid solution R1	100	ml
1069101	Potassium chloride 0.1M	1000	ml
1069201	Potassium chromate solution	1000	ml
1069401	Potassium cyanide solution	100	ml
1069402	Potassium cyanide solution, lead-free	100	ml
1069501	Potassium dichromate solution	1000	ml
1069502	Potassium dichromate solution R1	1000	ml
1069601	Potassium dihydrogen phosphate, 0.2 M	1000	ml
1070801	Potassium ferriperiodate solution	100	ml
1069801	Potassium ferrocyanide solution	100	ml
1070001	Potassium hydrogen phthalate, 0.2M	1000	ml
1070302	Potassium hydroxide in alcohol (10% V/V), 0.5M	1000	ml
1070303	Potassium hydroxide solution, alcoholic	100	ml
1070304	Potassium hydroxide solution, alcoholic R1	1000	ml
1070301	Potassium hydroxide, alcoholic 2M	100	ml
1070501	Potassium iodide and starch solution	100	ml
1070502	Potassium iodide solution	1000	ml
1070503	Potassium iodide solution, iodinated	100	ml
1070505	Potassium iodide solution, iodinated R1	100	ml
1070504	Potassium iodide solution, saturated	100	ml
1070600	Potassium iodobismuthate solution	100	ml
1070601	Potassium iodobismuthate solution R1	500	ml
1070602	Potassium iodobismuthate solution R2 (Stock solution)	100	ml
1070604	Potassium iodobismuthate solution R3	100	ml
1070605	Potassium iodobismuthate solution R4	100	ml
1070606	Potassium iodobismuthate solution R5	100	ml
1070603	Potassium iodobismuthate solution, dilute	500	ml
1070901	Potassium permanganate and phosphoric acid solution	100	ml
1070902	Potassium permanganate solution	1000	ml
1071200	Potassium plumbite solution	100	ml
1071301	Potassium pyroantimonate solution	100	ml
1071302	Potassium pyroantimonate solution R1	100	ml
1071500	Potassium tetraiodomercurate solution	100	ml
1071600	Potassium tetraiodomercurate solution, alkaline (I+II)	100+100	ml
1071801	Potassium thiocyanate solution	1000	ml
1073501	Pyridylazonaphthol Solution	100	ml
1073801	Quinaldine red solution	100	ml
1075201	Ruthenium red solution	100	ml
1075500	Salicylaldehyde azine. C ₁₄ H ₁₂ N ₂ O ₂ . (Mr 240.3)	100	g

Ref. Number	Description	Volume (other volumes also possible)	msr
1114900	SDS-PAGE Running Buffer (10 times concentrated)	1000	ml
1115000	SDS-PAGE Sample Buffer (Concentrated)	125	ml
1122100	SDS-PAGE Sample Buffer Solution for Reducing Conditions (Concentrated)	500	ml
1110400	Silver diethyldithiocarbamate C ₅ H ₁₀ AgNS ₂	1	g
1078200	Silver manganese paper	1	pack of 50
1078305	Silver nitrate reagent	100	ml
1078304	Silver nitrate solution in pyridine	100	ml
1078301	Silver nitrate solution R1	1000	ml
1078302	Silver nitrate solution R2	1000	ml
1165901	Sodium arsenite solution	100	ml
1079301	Sodium carbonate solution	1000	ml
1079302	Sodium carbonate solution R1	1000	ml
1079303	Sodium carbonate solution R2	1000	ml
1079502	Sodium chloride solution	1000	ml
1079503	Sodium chloride solution, saturated	1000	ml
1081301	Sodium hydrogen carbonate solution	1000	ml
1081401	Sodium hydroxide solution	1000	ml
1081406	Sodium hydroxide solution, carbonate - free	1000	ml
1081402	Sodium hydroxide solution, dilute	1000	ml
1081403	Sodium hydroxide solution, methanolic	100	ml
1081405	Sodium hydroxide solution, methanolic R1	100	ml
1081404	Sodium hydroxide solution, strong	1000	ml
1081407	4M Sodium hydroxide	1000	ml
1081600	Sodium hypochlorite solution, strong	1000	ml
1058305-2	Sodium metabisulphite 45.5 g/l solution	100	ml
1083801	Sodium sulfate, anhydrous R1	100	g
1083901	Sodium sulphide solution	100	ml
1083902	Sodium sulphide solution R1	100	ml
1147300-3	Standard solution for micro determination of water Karl Fischer coulometric Water Standard 1% - 10 ampoules x 4g (1 g contains 10 mg H ₂ O)	10x4	g
1085001	Stannous chloride solution	100	ml
1085101	Starch iodate paper	1	pack of 50
1085106	Starch iodide paper	1	pack of 50
1085103	Starch solution	100	ml
1086203	Sulphanilic acid solution	100	ml
1086201	Sulphanilic acid solution R1	100	ml
1086400	Sulphomolybdic reagent R2	100	ml
1086500	Sulphomolybdic reagent R3	100	ml
1086804	Sulphuric acid, dilute	1000	ml
1086805	Sulphuric acid-formaldehyde reagent	100	ml
1086809	5 M Sulfuric acid	100	ml
1088701	Tetramethyldiaminodiphenylmethane reagent	100	ml
1089601	Thioacetamide reagent (I + II)	1000	ml
1089602	Thioacetamide solution	100	ml
1090601	Thymol blue solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
1090701	Thymolphthalein solution	100	ml
1090901	Titan yellow paper	1	pack of 50
1090902	Titan yellow solution	100	ml
1091202	Titanium trichloride - sulphuric acid reagent	100	ml
1091201	Titanium trichloride solution	100	ml
1116600	TLC performance test solution	10	ml
1123001	o-Tolidine solution	500	ml
1092001	Tosylarginine methyl ester hydrochloride solution	100	ml
1092501	Trichloroacetic acid solution	1000	ml
1093801	Triphenyltetrazolium Chloride Solution	100	ml
1094201	Tris (hydroxymethyl) aminomethane solution	100	ml
1095302	Vanillin solution, phosphoric	100	ml
1095500	Water R	5000	ml
1095503	Water for chromatography	1000	ml
1095501	Water, ammonium-free	1000	ml
1095502	Water, carbon dioxide - free	1000	ml
1095506	Water, nitrate-free	1000	ml
1095507	Water, particle-free	1000	ml
1096102	Xanthidrol solution	100	ml
1096302	Xylenol orange solution	100	ml
1096301	Xylenol Orange Triturate	50	g
1102301	Zinc Acetate Solution	1000	ml
1096602	Zinc chloride solution, iodinated	1000	ml
1096601	Zinc chloride-formic acid solution	1000	ml
1096502	Zinc iodide and starch solution	100	ml
1096501	Zinc, activated	10	g
1097201	Zirconyl nitrate solution	100	ml

Standard Solutions

Ref. Number	Description	Volume (other volumes also possible)	msr
5000100	Acetaldehyde standard solution 100 times concentrated	100	ml
5000101	Acetaldehyde standard solution 100 times concentrated R1	100	ml
5000200	Aluminium standard solution	100	ml
5000203C	Aluminium standard solution 10 times concentrated	100	ml
5000201	Aluminium standard solution 100 times concentrated (1000 ppm Al)	100	ml
5000202	Aluminium standard solution 100 times concentrated (200 ppm Al)	100	ml
5006100C	Ammonium standard solution 100 times concentrated (300 ppm NH ₄)	100	ml
5000300C	Ammonium standard solution 2.5 times concentrated	100	ml
5000302	Ammonium standard solution 250 times concentrated	100	ml
5000301	Ammonium standard solution concentrated (250 ppm NH ₄)	100	ml
5000401	Antimony standard solution	100	ml
5000400C	Antimony standard solution 10 times concentrate	100	ml
5000500C	Arsenic standard solution 100 times concentrated	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
5000601	Barium standard solution	100	ml
5000600	Barium standard solution 20 times concentrated	100	ml
5005300C	Bismuth standard solution 10 times concentrated	100	ml
5000700	Cadmium standard solution	100	ml
5000801	Calcium standard solution 10 times concentrated	100	ml
5000800C	Calcium standard solution 10 times concentrated	100	ml
5000804C	Calcium standard solution 10 times concentrated R1	100	ml
5000803C	Calcium standard solution 100 times concentrated	100	ml
5000802C	Calcium standard solution alcoholic 10 times concentrated	100	ml
5004100	Chloride standard solution 10 times concentrated (500 ppm Cl)	100	ml
5000900C	Chloride standard solution 100 times concentrated	100	ml
5000901C	Chloride standard solution 100 times concentrated	100	ml
5001000	Chromium standard solution	100	ml
5001002	Chromium standard solution	100	ml
5004300	Cobalt standard solution	100	ml
5001100	Copper standard solution	100	ml
5006300	Copper standard solution (0.1 per cent Cu) for ICP	100	ml
5001200	Ferrocyanide standard solution 10 times concentrated	100	ml
5001300C	Ferrocyanide standard solution 100 times concentrated	100	ml
5001400C	Fluoride standard solution 20 times concentrated	100	ml
5001500C	Formaldehyde standard solution 200 times concentrated	100	ml
5004400	Germanium standard solution	100	ml
5003700C	Glyoxal standard solution 100 times concentrated	100	ml
5003800C	Iodide standard solution 100 times concentrated	100	ml
5001605	Iron standard solution	100	ml
5001600C	Iron standard solution 10 times concentrated	100	ml
5001602C	Iron standard solution 10 times concentrated	100	ml
5001606C	Iron standard solution 40 times concentrated	100	ml
5001606	Iron standard solution 40 times concentrated (10 000 ppm)	100	ml
5001601C	Iron Standard Solutuion 100 times concentrated	100	ml
5001700	Lead standard solution	100	ml
5001703	Lead standard solution 500 times concentrated	100	ml
5005400	Lead standard solution R1	100	ml
5001706C	Lead standard solution R1 10 times concentrated	100	ml
5001803	Magnesium standard solution	100	ml
5006200	Magnesium standard solution	100	ml
5001800C	Magnesium standard solution 10 times concentrated	100	ml
5001802C	Magnesium standard solution R1 100 times concentrated	100	ml
5004500	Manganese standard solution	100	ml
5005800	Manganese standard solution	100	ml
5001900	Mercury standard solution	100	ml
5001901C	Mercury standard solution 100 times concentrated	100	ml
5002000C	Nickel standard solution 100 times concentrated	100	ml
5002100C	Nitrate standard solution 10 times concentrated	100	ml
5003600	Palladium standard solution	100	ml
5003602	Palladium standard solution 10 times concentrated	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
5004200	Phosphate standard solution	100	ml
5002200C	Phosphate standard solution 100 times concentrated	100	ml
5002300C	Platinum standard solution 10 times concentrated	100	ml
5002402	Potassium standard solution	100	ml
5002400C	Potassium standard solution 20 times concentrated	100	ml
5005100C	Potassium standard solution 20 times concentrated	100	ml
5006400	Scandium standard solution (0.1 per cent Sc) for ICP	100	ml
5002500	Selenium standard solution	100	ml
5002501	Selenium standard solution (40 times concentrated)	100	ml
5002501C	Selenium standard solution 40 times concentrated	100	ml
5005700	Sodium standard solution	100	ml
5002700C	Sodium standard solution 10 times concentrated	100	ml
5003900	Strontium standard solution	100	ml
5005500C	Sulfite standard solution 200 times concentrated	100	ml
5002802C	Sulphate standard solution 10 times concentrated	100	ml
5002800C	Sulphate standard solution 100 times concentrated	100	ml
5002801C	Sulphate standard solution R1 100 times concentrated	100	ml
5002900	Sulphite standard solution	100	ml
5003000C	Thallium standard solution 10 times concentrated	100	ml
5003100C	Tin standard solution 100 times concentrated	100	ml
5003100	Tin standard solution 100 times concentrated (500 ppm Sn)	100	ml
5003200	Titanium standard solution	100	ml
5003300	Vanadium standard solution	100	ml
5003400	Zinc standard solution	100	ml
5003401C	Zinc standard solution 10 times concentrated	100	ml
5003500	Zirconium standard solution	100	ml

Buffer Solutions

Ref. Number	Description	Volume (other volumes also possible)	msr
4001100	Acetate buffer solution pH 4.4	1000	ml
4012500	Acetate buffer solution pH 4.5	1000	ml
4001400	Acetate buffer solution pH 4.6	1000	ml
4001600	Acetate buffer solution pH 4.7	1000	ml
4009100	Acetate buffer solution pH 5.0	1000	ml
4002200	Acetate buffer solution pH 6.0	1000	ml
4013600	Acetate buffer solution R1 pH 4.7	1000	ml
4001900	Acetate-edetate buffer solution pH 5.5	1000	ml
4014200	0.5 M Ammonium acetate buffer solution pH 4.5	1000	ml
4011900	Ammonium carbonate buffer solution 0.1 M pH 10.3	1000	ml
4007200	Ammonium chloride buffer solution pH 9.5	1000	ml
4007300	Ammonium chloride buffer solution pH 10.0	1000	ml
4011000	Ammonium chloride buffer solution pH 10.4	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
4013400	Ammonium chloride buffer solution pH 10.7	1000	ml
4005200	Borate buffer solution pH 7.5	1000	ml
4006000	Borate buffer solution 0.0015 M pH 8.0	1000	ml
4016000	Borate buffer solution pH 10.0	1000	ml
4011100	Borate buffer solution pH 10.4	1000	ml
4009700	Buffer (HEPES) solution pH 7.5	1000	ml
4008300	Buffer (phosphate) solution pH 9.0	1000	ml
4001000	Buffer copper sulphate solution pH 4.0	1000	ml
4000200	Buffer solution pH 2.0	1000	ml
4010500	Buffer solution pH 2.2	1000	ml
4000300	Buffer solution pH 2.5	1000	ml
4000400	Buffer solution pH 2.5 R1	1000	ml
4008000	Buffer solution pH 3.0	1000	ml
4000600	Buffer solution pH 3.5	1000	ml
4000800	Buffer solution pH 3.6	1000	ml
4000900	Buffer solution pH 3.7	1000	ml
4001700	Buffer solution pH 5.2	1000	ml
4001800	Buffer solution pH 5.5	1000	ml
4002900	Buffer solution pH 6.5	1000	ml
4003100	Buffer solution pH 6.6	1000	ml
4003500	Buffer solution pH 7.0	1000	ml
4004100	Buffer solution pH 7.2	1000	ml
4004600	Buffer solution pH 7.4	1000	ml
4005900	Buffer solution pH 8.0	1000	ml
4010400	Buffer solution pH 8.0	1000	ml
4007000	Buffer solution pH 9.0	1000	ml
4007100	Buffer solution R1 pH 9.0	1000	ml
4007600	Buffer solution pH 10.9	1000	ml
4014000	Buffer solution pH 11	1000	ml
4000100	Buffered acetone solution	1000	ml
4004300	Buffered salt solution pH 7.2	1000	ml
4012600	Citrate buffer solution 0.25 M pH 3.0	100	ml
4010700	Citrate buffer solution pH 5.0	1000	ml
4007500	Diethanolamine buffer solution pH 10.0	1000	ml
4002300	Diethylammonium phosphate buffer solution pH 6.0	1000	ml
4003000	Imidazole buffer solution pH 6.5	1000	ml
4004500	Imidazole buffer solution pH 7.4	1000	ml
4003600	Maleate buffer solution pH 7.0	1000	ml
4008200	Phosphate buffer solution .1M	1000	ml
4011500	Phosphate buffer solution 0.1 M pH 3.0	1000	ml
4009000	Phosphate buffer solution 0.05 M pH 4.5	1000	ml
4012000	Phosphate buffer solution 0.067 M pH 5.4	1000	ml
4010800	Phosphate buffer solution 0.1 M pH 6.5	1000	ml
4014300	0.1 M Phosphate buffer solution pH 6.7	1000	ml
4012400	Phosphate buffer solution 0.05 M pH 7.0	1000	ml
4009500	Phosphate buffer solution 0.063 M pH 7.0	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
4009400	Phosphate buffer solution 0.025M pH 7.0	1000	ml
4010300	Phosphate buffer solution 0.03M pH 7.0	1000	ml
4003900	Phosphate buffer solution 0.03M R1 pH 7.0	1000	ml
4003800	Phosphate buffer solution 0.067 M pH 7.0	1000	ml
4014400	0.05 M Phosphate buffer solution pH 7.5	1000	ml
4005400	Phosphate buffer solution 0.2 M pH 7.5	1000	ml
4005300	Phosphate buffer solution 0.33 M pH 7.5	1000	ml
4006100	Phosphate buffer solution 0.002 M pH 8.0	1000	ml
4008400	Phosphate buffer solution 0.1M pH 8.0	1000	ml
4007800	Phosphate buffer solution 1 M pH 8.0	1000	ml
4015400	0.1 M Phosphate buffer solution pH 11.3	1000	ml
4007900	Phosphate buffer solution pH 2.0	1000	ml
4010600	Phosphate buffer solution pH 2.8	1000	ml
4000500	Phosphate buffer solution pH 3.0	1000	ml
4008100	Phosphate buffer solution pH 3.2	1000	ml
4014900	Phosphate buffer solution pH 3.25	1000	ml
4015800	Phosphate buffer solution pH 3.4	1000	ml
4000700	Phosphate buffer solution pH 3.5	1000	ml
4011300	Phosphate buffer solution pH 5.0	1000	ml
4002000	Phosphate buffer solution pH 5.5	1000	ml
4011200	Phosphate buffer solution pH 5.6	1000	ml
4002100	Phosphate buffer solution pH 5.8	1000	ml
4002400	Phosphate buffer solution pH 6.0	1000	ml
4002800	Phosphate buffer solution pH 6.4	1000	ml
4012800	Phosphate buffer solution pH 6.5	1000	ml
4003300	Phosphate buffer solution pH 6.8	1000	ml
4003700	Phosphate buffer solution pH 7.0	1000	ml
4015700	Phosphate buffer solution pH 7.0 R	1000	ml
4015300	Phosphate buffer solution pH 7.0 R6	1000	ml
4004200	Phosphate buffer solution pH 7.2	1000	ml
4004800	Phosphate buffer solution pH 7.4	1000	ml
4013300	Phosphate buffer solution pH 8.5	1000	ml
4010000	Phosphate buffer solution R1 pH 3.0	1000	ml
4008500	Phosphate buffer solution R1 pH 3.2	1000	ml
4002500	Phosphate buffer solution R1 pH 6.0	1000	ml
4003400	Phosphate buffer solution R1 pH 6.8	1000	ml
4002600	Phosphate buffer solution R2 pH 6.0	1000	ml
4004000	Phosphate buffer solution R2 pH 7.0	1000	ml
4008600	Phosphate buffer solution R3 pH 7.0	1000	ml
4010200	Phosphate buffer solution R4 pH 7.0	1000	ml
4011400	Phosphate buffer solution R5 pH 7.0	1000	ml
4003200	Phosphate buffered saline pH 6.8	1000	ml
4005000	Phosphate buffered saline pH 7.4	1000	ml
4008700	Phosphate-citrate buffer solution pH 5.5	1000	ml
4001200	Phtalate buffer solution pH 4.4	1000	ml
4009200	Phtalate buffer solution pH 6.4	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
4013800	Sodium acetate buffer solution 0.1 M pH 4.0	1000	ml
4010100	Sodium acetate buffer solution pH 4.5	1000	ml
4015500	Sodium acetate buffer solution pH 5.0	1000	ml
4009800	Sodium citrate buffer solution (0.034M sodium citrate, 0.101M sodium chloride) pH 7.8	1000	ml
4013700	Sodium phosphate buffer solution 0.02 M pH 8.0	1000	ml
4014800	Sodium/calcium acetate buffer solution pH 7.0	1000	ml
4001500	Succinate buffer solution pH 4.6	1000	ml
4008900	Sulphate buffer solution pH 2.0	1000	ml
4010900	Tetrabutylammonium buffer solution pH 7.0	1000	ml
4007700	Total-ionic-strength-adjustment buffer	1000	ml
4008800	Total-ionic-strength-adjustment buffer R1	1000	ml
4006700	Tris acetate buffer solution pH 8.5	1000	ml
4009300	tris-hydrochloride buffer solution 1M pH 6.8	500	ml
4005600	Tris-hydrochloride buffer solution 0.05M pH 7.5	1000	ml
4014500	1 M Tris-hydrochloride buffer solution pH 7.5	1000	ml
4012300	Tris-hydrochloride buffer solution pH 8.0	1000	ml
4012700	Tris-hydrochloride buffer solution 1 M pH 8.0	1000	ml
4011800	Tris-hydrochloride buffer solution pH 8.3	1000	ml
4009900	tris-hydrochloride buffer solution 1.5M pH 8.8	500	ml
4015000	3 M Tris-hydrochloride buffer solution pH 8.8	1000	ml
4013500	Tris-hydrochloride buffer solution 0.05 M pH 9.0	100	ml
4012100	Tris(hydroxymethyl)aminomethane buffer solution pH 7.4	500	ml
4005500	Tris(hydroxymethyl)aminomethane buffer solution pH 7.5	1000	ml
4006200	Tris(hydroxymethyl)aminomethane buffer solution pH 8.1	100	ml
4015200	Tris(hydroxymethyl)aminomethane buffer solution pH 9.0	1000	ml
4004900	Tris(hydroxymethyl)aminomethane sodium chloride buffer solution pH 7.4	1000	ml
4012200	Tris(hydroxymethyl)aminomethane sodium chloride buffer solution R1 pH 7.4	1000	ml
4006600	Tris(hydroxymethyl)aminomethane-EDTA buffer solution pH 8.4	500	ml
4006300	Tris-glycine buffer solution pH 8.3, Concentrate to be dilluted	1000	ml
4012900	Tris-sodium acetate buffer solution pH 7.4	1000	ml
4013100	Tris-sodium acetate buffer solution pH 8.0	1000	ml
4013000	Tris-sodium acetate-sodium chloride buffer solution pH 7.4	1000	ml
4013200	Tris-sodium acetate-sodium chloride buffer solution pH 8.0	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
2000200	Primary standard - Benzoic Acid - C7H6O2	100	g
2000300	Primary standard - Potassium Bromate - KBrO3	50	g
2000400	Primary standard - Potassium Hydrogen Phthalate - C8H5KO4	50	g
2000500	Primary standard - Sodium Carbonate - Na2CO3 (anhydrous)	50	g
2000600	Primary standard - Sodium Chloride - NaCl	250	g
2000700	Primary standard - Sulphanilic Acid - C6H7NO3S	100	g
2000800	Primary standard - Zinc - Zn	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 Certificate of Analysis.

The identity of CPAchem's 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.

Ref. Number	Description	Volume (other volumes also possible)	msr
3008900	Acetic acid 0.1M	1000	ml
3000200	Ammonium and cerium nitrate 0.01 M	1000	ml
3000100	Ammonium and cerium nitrate 0.1 M	1000	ml
3000400	Ammonium and cerium sulphate 0.01M	1000	ml
3000300	Ammonium and cerium sulphate 0.1M	1000	ml
3000500	Ammonium thiocyanate 0.1M	1000	ml
3000600	Barium chloride 0.1M	1000	ml
3010200	0.005 M Barium perchlorate	100	ml
3009600	Barium perchlorate 0.025M	1000	ml
3000700	Barium perchlorate 0.05M	1000	ml
3000900	Benzethonium chloride 0.004 M	1000	ml
3010000	Bismuth nitrate 0.01 M	1000	ml
3001000	Bromide-bromate 0.0167M	1000	ml
3001100	Cerium sulphate 0.1 M	1000	ml
3001200	Copper sulphate 0.02M	1000	ml
3008700	Cupriethylenediamine hydroxide solution 1M	1000	ml
3001300	Ferric ammonium sulphate 0.1M	1000	ml
3001400	Ferrous sulphate 0.1M	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
3008800	Hydrochloric acid, alcoholic 0.1M	1000	ml
3002100	Hydrochloric acid 0.1M	1000	ml
3001800	Hydrochloric acid 1M	1000	ml
3001700	Hydrochloric acid 2M	1000	ml
3001600	Hydrochloric acid 3M	1000	ml
3001500	Hydrochloric acid 6M	1000	ml
3002900	Iodine 0.01M	1000	ml
3002700	Iodine 0.05M	1000	ml
3009400	Iodine 0.5M	1000	ml
3010100	Lanthanum Nitrate 0.1M	1000	ml
3009700	Lead nitrate 0.05M	1000	ml
3003100	Lead nitrate 0.1M	1000	ml
3003400	Magnesium chloride 0.1M	1000	ml
3003600	Nitric acid 1M	1000	ml
3009900	Perchloric acid 0.025M	1000	ml
3004000	Perchloric acid 0.05M	1000	ml
3003900	Perchloric acid 0.1M	1000	ml
3004500	Potassium bromate 0.0083M	1000	ml
3004400	Potassium bromate 0.0167M	1000	ml
3004300	Potassium bromate 0.02M	1000	ml
3004200	Potassium bromate 0.033M	1000	ml
3004600	Potassium dichromate 0.0167M - old Ph Eur edition	1000	ml
3004700	Potassium hydrogen phthalate 0.1M	1000	ml
3004800	Potassium Hydroxide 0.1M	1000	ml
3009100	Potassium Hydroxide 1M	1000	ml
3009000	Potassium Hydroxide alcoholic 0.01M	1000	ml
3005100	Potassium Hydroxide alcoholic 0.1M	1000	ml
3005000	Potassium Hydroxide alcoholic 0.5M	1000	ml
3004900	Potassium Hydroxide in alcohol (60% v/v) 0.5M	1000	ml
3005200	Potassium iodate 0.05M	1000	ml
3009200	Potassium iodide 0.001M	1000	ml
3005300	Potassium permanganate 0.02M	1000	ml
3009300	Silver nitrate 0.001M	1000	ml
3005600	Silver nitrate 0.1M	1000	ml
3005800	Sodium arsenite 0.1M	500	ml
3006000	Sodium edetate 0.02M	1000	ml
3005900	Sodium edetate 0.1M	1000	ml
3006600	Sodium hydroxide 0.1M	1000	ml
3006300	Sodium hydroxide 1M	1000	ml
3007000	Sodium hydroxide, ethanolic 0.1M	1000	ml
3007100	Sodium methoxide 0.1M	1000	ml
3007200	Sodium nitrite 0.1M	1000	ml
3009500	Sodium periodate 0.1M	1000	ml
3007300	Sodium thiosulphate 0.1M	1000	ml
3008000	Sulphuric acid 0.05M	1000	ml
3007800	Sulphuric acid 0.5M	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
3008300	Tetrabutylammonium hydroxide 0.1M	1000	ml
3008400	Tetrabutylammonium hydroxide in 2-propanol 0.1M	1000	ml
3008500	Zinc chloride 0.05M	1000	ml
3008600	Zinc sulphate 0.1M	1000	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

Ref. Number	Description	Volume (other volumes also possible)	msr
USP350	Acetic Acid, Diluted	1000	ml
USP351	Alcohol, 70 %	100	ml
USP352	Alcohol, 80 %	100	ml
USP353	Alcohol, 90 %	100	ml
USP354	Kit of alcoholic solution (70, 80, 90%)	3x100	ml
USP355	Alcohol, Aldehyde-free	1000	ml
USP356	Ammonium Hydroxide, 6 N	1000	ml
USP362	Hydrochloric Acid, Diluted (10 %)	1000	ml
USP363	Methanol, Aldehyde-Free	1000	ml
USP364	Nitric Acid, Diluted (10 % HNO3)	1000	ml
USP365	Standard nitrogen solution (0.1 mg/ml N)	100	ml
USP366	Potassium iodate solution (0.25 N)	500	ml
USP367	Sulfuric Acid, Diluted (10 %)	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
USP064	Acetate Buffer pH 3.5 for Heavy metals	1000	ml
USP054	Acetate Buffer pH 4.1	200	ml
USP055	Acetate Buffer pH 4.3	200	ml
USP056	Acetate Buffer pH 4.5	200	ml
USP057	Acetate Buffer pH 4.7	200	ml
USP058	Acetate Buffer pH 4.9	200	ml
USP059	Acetate Buffer pH 5.1	200	ml
USP060	Acetate Buffer pH 5.2	200	ml
USP061	Acetate Buffer pH 5.3	200	ml
USP062	Acetate Buffer pH 5.4	200	ml
USP063	Acetate Buffer pH 5.5	200	ml
USP012	Acid Phthalate Buffer pH 2.2	200	ml
USP013	Acid Phthalate Buffer pH 2.4	200	ml
USP014	Acid Phthalate Buffer pH 2.6	200	ml
USP015	Acid Phthalate Buffer pH 2.8	200	ml
USP016	Acid Phthalate Buffer pH 3.0	200	ml
USP017	Acid Phthalate Buffer pH 3.2	200	ml
USP018	Acid Phthalate Buffer pH 3.4	200	ml
USP019	Acid Phthalate Buffer pH 3.6	200	ml
USP020	Acid Phthalate Buffer pH 3.8	200	ml
USP021	Acid Phthalate Buffer pH 4.0	200	ml
USP053	Alkaline Borate Buffer pH 10.0	200	ml
USP043	Alkaline Borate Buffer pH 8.0	200	ml
USP044	Alkaline Borate Buffer pH 8.2	200	ml
USP045	Alkaline Borate Buffer pH 8.4	200	ml
USP046	Alkaline Borate Buffer pH 8.6	200	ml
USP047	Alkaline Borate Buffer pH 8.8	200	ml
USP048	Alkaline Borate Buffer pH 9.0	200	ml
USP049	Alkaline Borate Buffer pH 9.2	200	ml
USP050	Alkaline Borate Buffer pH 9.4	200	ml
USP051	Alkaline Borate Buffer pH 9.6	200	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP052	Alkaline Borate Buffer pH 9.8	200	ml
USP001	Hydrochloric Acid Buffer pH 1.2	200	ml
USP002	Hydrochloric Acid Buffer pH 1.3	200	ml
USP003	Hydrochloric Acid Buffer pH 1.4	200	ml
USP004	Hydrochloric Acid Buffer pH 1.5	200	ml
USP005	Hydrochloric Acid Buffer pH 1.6	200	ml
USP006	Hydrochloric Acid Buffer pH 1.7	200	ml
USP007	Hydrochloric Acid Buffer pH 1.8	200	ml
USP008	Hydrochloric Acid Buffer pH 1.9	200	ml
USP009	Hydrochloric Acid Buffer pH 2.0	200	ml
USP010	Hydrochloric Acid Buffer pH 2.1	200	ml
USP011	Hydrochloric Acid Buffer pH 2.2	200	ml
USP022	Neutralized Phthalate Buffer pH 4.2	200	ml
USP023	Neutralized Phthalate Buffer pH 4.4	200	ml
USP024	Neutralized Phthalate Buffer pH 4.6	200	ml
USP025	Neutralized Phthalate Buffer pH 4.8	200	ml
USP026	Neutralized Phthalate Buffer pH 5.0	200	ml
USP027	Neutralized Phthalate Buffer pH 5.2	200	ml
USP028	Neutralized Phthalate Buffer pH 5.4	200	ml
USP029	Neutralized Phthalate Buffer pH 5.6	200	ml
USP030	Neutralized Phthalate Buffer pH 5.8	200	ml
USP031	Phosphate Buffer pH 5.8	200	ml
USP032	Phosphate Buffer pH 6.0	200	ml
USP033	Phosphate Buffer pH 6.2	200	ml
USP034	Phosphate Buffer pH 6.4	200	ml
USP035	Phosphate Buffer pH 6.6	200	ml
USP036	Phosphate Buffer pH 6.8	200	ml
USP037	Phosphate Buffer pH 7.0	200	ml
USP038	Phosphate Buffer pH 7.2	200	ml
USP039	Phosphate Buffer pH 7.4	200	ml
USP040	Phosphate Buffer pH 7.6	200	ml
USP041	Phosphate Buffer pH 7.8	200	ml
USP042	Phosphate Buffer pH 8.0	200	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 .

Ref. Number	Description	Volume (other volumes also possible)	msr
USP065	Cobaltous Chloride CS	100	ml
USP066	Cupric Sulfate CS	100	ml
USP067	Ferric Chloride CS	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; fiftiethnormal, 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 grammolecule of the reagent. Solutions containing, in 1000 mL, one-tenth of a grammolecule 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.

Ref. Number	Description	Volume (other volumes also possible)	msr
USP088	Acetic Acid, Double-Normal (2 N)	1000	ml
USP089	Ammonium Thiocyanate, Tenth-Normal (0.1B N)	1000	ml
USP495	0.05 M Barium Perchlorate VS	1000	ml
USP090	Bromine, Tenth-Normal (0.1B N)	1000	ml
USP091	0.05 N Ceric Ammonium Nitrate VS	1000	ml
USP092	Ceric Sulfate, Tenth-Normal (0.1 N)	1000	ml
USP093	Cupric Nitrate, Tenth-Normal (0.1B N)	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP094	0.05 M Edetate Disodium VS	1000	ml
USP095	0.1 N Ferric Ammonium Sulfate VS	1000	ml
USP096	0.1 N Ferrous Ammonium Sulfate VS	1000	ml
USP097	1 N Hydrochloric Acid VS	1000	ml
USP098	0.5 N Hydrochloric Acid VS	1000	ml
USP099	0.5 N Hydrochloric Acid in Methanol VS	1000	ml
USP100	0.1 M Alcoholic Hydrochloric Acid VS	1000	ml
USP101	Iodine, Tenth-Normal (0.1 N)	1000	ml
USP102	0.01 N Iodine VS	1000	ml
USP103	0.01 M Lead Nitrate VS	1000	ml
USP104	0.1 M Lead Nitrate	1000	ml
USP105	0.1 M Lead Perchlorate VS	1000	ml
USP106	0.01 M Lead Perchlorate VS	1000	ml
USP111	0.1 M Mercuric Nitrate VS	1000	ml
USP112	0.1 N Oxalic Acid VS	1000	ml
USP113	0.1 N Perchloric Acid in Glacial Acetic Acid VS	1000	ml
USP114	0.1 N Perchloric Acid in Dioxane VS	1000	ml
USP115	0.1 N Potassium Bromate VS	1000	ml
USP116	0.1 N Potassium Bromide 7.5% Bromate VS	1000	ml
USP117	Potassium Dichromate, Tenth-Normal (0.1 N)	1000	ml
USP118	0.05 M Potassium Ferricyanide VS	1000	ml
USP119	Potassium Hydroxide, Normal (1 N)	1000	ml
USP120	0.5 N Alcoholic Potassium Hydroxide VS	1000	ml
USP121	0.1 M Alcoholic Potassium Hydroxide VS	1000	ml
USP122	0.1 N Methanolic Potassium Hydroxide VS	1000	ml
USP123	0.05 M Potassium Iodate VS	1000	ml
USP124	0.1 N Potassium Permanganate VS	1000	ml
USP125	0.1 N Silver Nitrate VS	1000	ml
USP126	0.05 M Sodium Arsenite VS	1000	ml
USP127	1 N Sodium Hydroxide VS	1000	ml
USP128	0.1 N Alcoholic Sodium Hydroxide VS	1000	ml
USP129	0.1 N Sodium Methoxide in Toluene VS	1000	ml
USP130	0.5 N Sodium Methoxide in Methanol VS	1000	ml
USP131	0.1 M Sodium Nitrite VS	1000	ml
USP132	0.1 N Sodium Thiosulfate VS	1000	ml
USP496	0.05 N Sulfuric Acid VS	1000	ml
USP133	0.5 N Sulfuric Acid in Alcohol VS	1000	ml
USP134	1 N Sulfuric Acid VS	1000	ml
USP135	0.1 N Tetrabutylammonium Hydroxide VS	100	ml
USP136	0.1 N Tetrabutylammonium Hydroxide in Methanol/Isopropyl Alcohol VS	1000	ml
USP137	0.1 M Tetramethylammonium Bromide VS	1000	ml
USP138	0.1 M Tetramethylammonium Chloride VS	1000	ml
USP139	0.05 M Zinc Sulfate VS	1000	ml

Test Solutions

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.

Ref. Number	Description	Volume (other volumes also possible)	msr
USP140	Acetate Buffer TS	1000	ml
USP487	0.008 M Acetic Acid TS	1000	ml
USP488	0.3 N Acetic Acid TS	1000	ml
USP485	1 M Acetic Acid TS	1000	ml
USP486	2 M Acetic Acid TS	1000	ml
USP421	Acetic Acid (6 N Acetic Acid)	1000	ml
USP424	Acetic Acid, Strong, TS	1000	ml
USP141	Acetic Acid-Ammonium Acetate Buffer TS	1000	ml
USP143	Acid Ferric Chloride TS	100	ml
USP292	Alcoholic Potassium Hydroxide TS (0,5N)	1000	ml
USP146	Alcohol-Phenol TS	100	ml
USP156	Amaranth TS	100	ml
USP159	Ammonia TS	1000	ml
USP425	Ammonia TS 2	1000	ml
USP157	Ammonia-Ammonium Chloride Buffer TS	1000	ml
USP160	Ammoniacal Potassium Ferricyanide TS	500	ml
USP158	Ammonia-Cyanide TS	100	ml
USP454	1 M Ammonium Hydroxide TS	1000	ml
USP162	Ammonium Acetate TS	100	ml
USP163	Ammonium Carbonate TS	100	ml
USP426	Ammonium Carbonate TS2	100	ml
USP164	Ammonium Chloride TS	100	ml
USP165	Ammonium Chloride-Ammonium Hydroxide TS	100	ml
USP455	2 M Ammonium Hydroxide TS	1000	ml
USP166	Ammonium Molybdate TS	100	ml
USP167	Ammonium Oxalate TS	100	ml
USP168	Ammonium Phosphate, Dibasic, TS (Ammonium Phosphate TS)	100	ml
USP169	Ammonium Thiocyanate TS	100	ml
USP170	Ammonium Vanadate TS	500	ml
USP171	Antimony Trichloride TS	100	ml
USP427	10% Ascorbic Acid TS	100	ml
USP172	Barium Chloride TS	100	ml
USP173	Barium Nitrate TS	100	ml
USP438	Benzethonium Chloride, Two Hundred Fiftieth-Molar (0.004 M)	1000	ml
USP174	Biuret Reagent TS	1000	ml
USP439	0.01 M Bismuth Nitrate VS	1000	ml
USP175	Blue Tetrazolium TS	100	ml
USP176	Brilliant Blue G TS	100	ml
USP177	Bromine TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP178	Bromine-Sodium Acetate TS	100	ml
USP180	Bromocresol Blue TS = Bromocresol Green TS	100	ml
USP181	Bromocresol Green-Methyl Red TS	100	ml
USP182	Bromocresol Purple TS	100	ml
USP183	Bromophenol Blue TS	100	ml
USP184	Bromothymol Blue TS	100	ml
USP142	Buffered Acetone TS	1000	ml
USP186	Calcium Chloride TS	100	ml
USP187	Calcium Sulfate TS	100	ml
USP188	Chloral Hydrate TS	100	ml
USP189	Chromotropic Acid TS	100	ml
USP191	Cobaltous Chloride TS	100	ml
USP190	Cobalt-Uranyl Acetate TS	100	ml
USP192	Congo Red TS	100	ml
USP194	Cresol Red TS	100	ml
USP195	Cresol Red-Thymol Blue TS	100	ml
USP197	Cupric Acetate TS	100	ml
USP198	Cupric Acetate TS, Stronger (Barfoed's Reagent)	100	ml
USP199	Cupric Citrate TS	100	ml
USP200	Cupric Citrate TS, Alkaline	100	ml
USP201	Cupric Iodide TS, Alkaline	100	ml
USP202	Cupric Oxide, Ammoniated, TS (Schweitzer's Reagent)	100	ml
USP203	Cupric Sulfate TS	100	ml
USP204	Cupric Tartrate, Alkaline, Solution (Fehling's Solution) (A+B)	1000	ml
USP207	Delafield's Hematoxylin TS	100	ml
USP209	Diazobenzenesulfonic Acid TS	100	ml
USP321	Dibasic Sodium Phosphate TS	100	ml
USP210	Dichlorofluorescein TS	100	ml
USP212	Dinitrophenylhydrazine TS	50	ml
USP213	Diphenylamine TS	100	ml
USP214	Diphenylcarbazone TS	100	ml
USP215	Dragendorff's TS (A+B)	100	ml
USP216	Edetate Disodium TS	500	ml
USP456	0.01 M Edetate Disodium TS	1000	ml
USP440	0.1 M Edetate Disodium VS	1000	ml
USP217	Eosin Y TS	50	ml
USP218	Eriochrome Black TS	100	ml
USP219	Eriochrome Cyanine TS	100	ml
USP221	Ferric Ammonium Sulfate TS	100	ml
USP222	Ferric Chloride TS	100	ml
USP223	Ferroun TS	100	ml
USP224	Folin-Ciocalteu Phenol TS	100	ml
USP225	Formaldehyde TS	100	ml
USP226	Glycerin Base TS	100	ml
USP428	0.001 N Hydrochloric Acid TS	1000	ml
USP457	0.01 N Hydrochloric Acid TS	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP446	0.02 N Hydrochloric Acid VS	1000	ml
USP458	0.025 N Hydrochloric Acid TS	1000	ml
USP459	0.05 N Hydrochloric Acid TS	1000	ml
USP429	0.06 N Hydrochloric Acid TS	1000	ml
USP489	0.08 N Hydrochloric Acid TS	1000	ml
USP447	0.1 N Hydrochloric Acid VS	1000	ml
USP490	0.125 N Hydrochloric Acid TS	1000	ml
USP430	0.36 N Hydrochloric Acid TS	1000	ml
USP431	2 N Hydrochloric Acid TS	1000	ml
USP432	3 N Hydrochloric Acid TS	1000	ml
USP433	6 N Hydrochloric Acid TS	1000	ml
USP227	Hydroxylamine Hydrochloride TS	100	ml
USP228	8-Hydroxyquinoline TS	100	ml
USP229	Indigo Carmine TS	100	ml
USP230	Intestinal Fluid, Simulated, TS (without pancreatin)	500	ml
USP232	Iodine and Potassium Iodide TS 1	100	ml
USP231	Iodine, Diluted TS	1000	ml
USP441	0.05 N Iodine VS	1000	ml
USP233	Iodobromide TS	100	ml
USP234	Iodochloride TS	1000	ml
USP235	Iron Salicylate TS	100	ml
USP434	Lanthanum Nitrate TS	100	ml
USP236	Lead Acetate TS	100	ml
USP237	Lead Acetate TS, Alcoholic	100	ml
USP435	Lead Nitrate Stock Solution TS	100	ml
USP238	Lead Subacetate TS	100	ml
USP239	Lead Subacetate TS, Diluted	125	ml
USP240	Litmus TS	100	ml
USP241	Magnesia Mixture TS	100	ml
USP443	0.01 M Magnesium Chloride VS	1000	ml
USP242	Magnesium Sulfate TS	100	ml
USP243	Malachite Green TS	100	ml
USP193	m-Cresol Purple TS	100	ml
USP245	Mercuric Acetate TS	100	ml
USP247	Mercuric Bromide TS, Alcoholic	100	ml
USP248	Mercuric Chloride TS	100	ml
USP249	Mercuric Iodide TS (Valser's Reagent)	100	ml
USP250	Mercuric Nitrate TS	100	ml
USP253	Mercuric Sulfate TS (Denig's Reagent)	100	ml
USP246	Mercuric-Ammonium Thiocyanate TS	500	ml
USP251	Mercuric-Potassium Iodide TS (Mayer's Reagent)	100	ml
USP252	Mercuric-Potassium Iodide TS, Alkaline (Nessler's Reagent)	500	ml
USP254	Mercurous Nitrate TS	100	ml
USP256	Methyl Orange TS	100	ml
USP257	Methyl Red TS	100	ml
USP196	Methyl Violet TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP259	Methyl Yellow TS	100	ml
USP260	Methyl Yellow-Methylene Blue TS	125	ml
USP255	3-Methyl-2-benzothiazolinone Hydrazone Hydrochloride TS	100	ml
USP261	Methylene Blue TS	100	ml
USP262	Methylthionine Perchlorate TS	100	ml
USP263	Molybdo-phosphotungstate TS	100	ml
USP264	2-Naphthol TS (Betanaphthol TS)	100	ml
USP266	N-(1-Naphthyl)ethylenediamine Dihydrochloride TS	100	ml
USP268	Neutral Red TS	100	ml
USP368	0.01 N Nitric Acid TS	1000	ml
USP369	0.2 N Nitric Acid TS	1000	ml
USP370	1 N Nitric Acid TS	1000	ml
USP371	2 N Nitric Acid TS	100	ml
USP269	Nickel Standard Solution TS (100 times concentrated)	100	ml
USP358	Oracet Blue B TS	100	ml
USP271	Orthophenanthroline TS	100	ml
USP272	Oxalic Acid TS	500	ml
USP273	Palladium Chloride TS, Buffered	100	ml
USP274	Perchloric Acid TS	100	ml
USP276	pH 4.7 Phenol Red TS	100	ml
USP275	Phenol Red TS	100	ml
USP277	Phenoldisulfonic Acid TS	100	ml
USP278	Phenolphthalein TS	100	ml
USP279	Phenylhydrazine Acetate TS	100	ml
USP280	Phenylhydrazine-Sulfuric Acid TS	100	ml
USP281	Phloroglucinol TS	100	ml
USP282	Phosphomolybdic Acid TS	100	ml
USP462	1 N Phosphoric Acid TS	1000	ml
USP460	0.05 M Phosphoric Acid TS	1000	ml
USP461	0.06 M Phosphoric Acid TS	1000	ml
USP491	0.75 M Phosphoric Acid TS	1000	ml
USP492	1.5 M Phosphoric Acid TS	1000	ml
USP436	10% Phosphoric Acid TS	100	ml
USP463	20% Phosphoric Acid TS	1000	ml
USP283	Phosphotungstic Acid TS	100	ml
USP284	Platinic Chloride TS	10	ml
USP285	Platinum-Cobalt TS	100	ml
USP265	p-Naphtholbenzein TS	100	ml
USP270	p-Nitroaniline TS	100	ml
USP286	Potassium Acetate TS	100	ml
USP444	0.1 N Potassium Arsenite VS	1000	ml
USP287	Potassium-Bismuth Iodide TS	500	ml
USP288	Potassium Carbonate TS	100	ml
USP289	Potassium Chromate TS	100	ml
USP290	Potassium Dichromate TS	100	ml
USP449	0.025 N Potassium Dichromate VS	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP291	Potassium Hydroxide TS	100	ml
USP466	45% Potassium Hydroxide TS	100	ml
USP464	1.8 N Potassium Hydroxide TS	1000	ml
USP465	2 N Potassium Hydroxide TS	1000	ml
USP294	20% Potassium Iodide TS	100	ml
USP295	Potassium Iodide and Starch TS	100	ml
USP296	Potassium Iodoplatinate TS	50	ml
USP468	0.2 M Dibasic Potassium Phosphate TS	1000	ml
USP467	0.02 M Monobasic Potassium Phosphate TS	1000	ml
USP299	Potassium Pyroantimonate TS	100	ml
USP300	Potassium Sulfate TS	100	ml
USP301	Potassium Thiocyanate TS	100	ml
USP445	0.1 N Potassium Thiocyanate VS	1000	ml
USP347	p-Toluenesulfonic Acid TS	100	ml
USP302	Quinaldine Red TS	100	ml
USP303	Resorcinol TS	100	ml
USP304	Ruthenium Red TS	100	ml
USP306	Silver-Ammonia-Nitrate TS	100	ml
USP451	0.002 N Silver Nitrate in Isopropyl Alcohol VS	1000	ml
USP450	0.05 N Silver Nitrate VS	1000	ml
USP310	Sodium Acetate TS	100	ml
USP311	Sodium Alizarinsulfonate TS	100	ml
USP312	Sodium Aminoacetate TS (Sodium Glycinate TS)	500	ml
USP313	Sodium Carbonate TS	100	ml
USP314	Sodium Chloride TS, Alkaline	100	ml
USP315	Sodium Citrate TS	250	ml
USP316	Sodium Citrate TS, Alkaline	250	ml
USP318	Sodium Fluoride TS	100	ml
USP319	Sodium Hydroxide TS	100	ml
USP469	0.0025 N Sodium Hydroxide TS	1000	ml
USP470	0.02 N Sodium Hydroxide TS	1000	ml
USP452	0.1 N Sodium Hydroxide VS	1000	ml
USP471	0.2 N Sodium Hydroxide TS	1000	ml
USP472	2 N Sodium Hydroxide TS	1000	ml
USP473	2.5 N Sodium Hydroxide TS	1000	ml
USP474	5 N Sodium Hydroxide TS	1000	ml
USP475	10 N Sodium Hydroxide TS	1000	ml
USP320	Sodium Iodohydroxyquinolinesulfonate TS	250	ml
USP322	Sodium Phosphotungstate TS	100	ml
USP323	Sodium Tartrate TS	100	ml
USP324	Sodium Tetraphenylboron TS	100	ml
USP329	Stannous Chloride, Acid, Stronger, TS	100	ml
USP328	Stannous Chloride, Acid, TS	100	ml
USP330	Starch Iodide Paste TS	100	ml
USP331	Starch TS	100	ml
USP333	Sudan III TS	50	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
USP334	Sudan IV TS	100	ml
USP335	Sulfanilic Acid TS	100	ml
USP337	Sulfanilic-1-Naphthylamine TS	100	ml
USP338	Sulfomolybdic Acid TS	100	ml
USP339	Sulfuric Acid TS	100	ml
USP477	0.02 N Sulfuric Acid TS	1000	ml
USP478	0.2 N Sulfuric Acid TS	1000	ml
USP479	0.5 N Sulfuric Acid TS	1000	ml
USP476	1 M Sulfuric Acid TS	1000	ml
USP480	2 N Sulfuric Acid TS	1000	ml
USP481	6 N Sulfuric Acid TS	1000	ml
USP482	7 N Sulfuric Acid TS	1000	ml
USP483	0.02 M Tetrabutylammonium Hydrogen Sulfate TS	1000	ml
USP340	Tetramethylammonium Hydroxide TS	100	ml
USP206	The Alkaline Tartrate Solution (B)	500	ml
USP205	The Copper Solution (A)	500	ml
USP341	Thioacetamide TS	100	ml
USP342	Thorium Nitrate TS	100	ml
USP343	Thymol Blue TS	100	ml
USP344	Thymolphthalein TS	100	ml
USP345	Titanium Trichloride TS	100	ml
USP346	Titanium Trichloride-Sulfuric Acid TS	100	ml
USP494	0.1% Trifluoroacetic Acid TS	1000	ml
USP348	Trinitrophenol TS (Picric Acid TS)	100	ml
USP349	Triphenyltetrazolium Chloride TS	100	ml
USP442	Xylenol orange triturate	50	g
USP437	Xylenol Orange TS	100	ml
USP453	0.1 M Zinc Sulfate VS	1000	ml
USP357	Zinc Uranyl Acetate TS	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
USP068	Cupric Sulfate Test Paper	1	pack of 50
USP069	Lead Acetate Test Paper	1	pack of 50
USP422	Litmus Paper, Blue Pack of 50	1	pack of 50
USP423	Litmus Paper, Red Pack of 50	1	pack of 50
USP070	Mercuric Bromide Test Paper	1	pack of 50
USP071	Methyl Yellow Paper	1	pack of 50
USP072	Phenolphthalein Paper	1	pack of 50

Ref. Number	Description	Volume (other volumes also possible)	msr
USP073	Starch Iodate Paper	1	pack of 50
USP074	Starch Iodide Paper	1	pack of 50
USP075	Thiazole Yellow Paper	1	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
USP076	Arsenic Trioxide Stock Solution	100	ml
USP084	Brucine Sulfate Solution	100	ml
USP078	Standard Calcium Solution	100	ml
USP077	Standard Chloride Solution	100	ml
USP082	Lead Nitrate Stock Solution	100	ml
USP083	Standard Nitrate Solution	100	ml
USP085	Standard Phosphate Solution	100	ml
USP086	Phosphate Reagent A	100	ml
USP079	Standard Potassium Solution	100	ml
USP080	Standard Sodium Solution	100	ml
USP081	Standard Strontium Solution	100	ml
USP087	Standard Sulfate Solution	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
BP001	Acetic Acid	100	ml
BP002	Acetic Acid, Dilute	1000	ml
BP003	Acetic Anhydride Solution R1	100	ml
BP004	Acetylacetone Reagent R1	100	ml
BP005	Alcohol, Aldehyde-free	1000	ml
BP006	Alizarin S Solution	100	ml
BP007	Aluminium Chloride Reagent	1000	ml
BP008	Aluminium Chloride Solution	100	ml
BP009	Amaranth Solution	100	ml
BP010	Amido Black 10B Solution	100	ml
BP011	4-Aminobenzoic Acid Solution - Solution A	100	ml
BP012	Aminohippuric Acid Reagent	100	ml
BP013	Aminomethylalzarindiacetic Acid Reagent (Sol A+B+C) 50ml+50ml+100ml	50+50+100	ml
BP014	Aminomethylalzarindiacetic Acid Solution	1000	ml
BP015	Aminophenazone Solution	100	ml
BP016	Ammonia R1, Dilute	1000	ml
BP017	Ammonia R2, Dilute	1000	ml
BP018	Ammonia R3, Dilute	1000	ml
BP019	Ammonium Carbonate Solution	1000	ml
BP020	Ammonium Carbonate Solution, Dilute	100	ml
BP021	Ammonium Chloride Solution	1000	ml
BP022	Ammonium Citrate Solution	1000	ml
BP023	Ferric ammonium sulphate solution R1	100	ml
BP024	Ferric ammonium sulphate solution R2	1000	ml
BP025	Ferric ammonium sulphate solution R5	100	ml
BP026	Ferric ammonium sulphate solution R6	100	ml
BP027	Ammonium Mercaptoacetate Solution	500	ml
BP028	Ammonium Mercurithiocyanate Reagent	1000	ml
BP029	Ammonium Metavanadate Solution	100	ml
BP030	Ammonium Molybdate Solution	1000	ml
BP031	Ammonium Molybdate Solution R2	50	ml
BP032	Ammonium molybdate solution R3 (I+II)	200+800	ml
BP033	Ammonium Molybdate Solution R6	100	ml
BP034	Ammonium Molybdate-Sulphuric Acid Solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP035	Ammonium Oxalate Solution	1000	ml
BP036	Ammonium Thiocyanate Solution	1000	ml
BP037	Ammonium Vanadate Solution	100	ml
BP038	Anisaldehyde Solution	100	ml
BP039	Anisaldehyde Solution R1	100	ml
BP040	Antimony Trichloride in Dichloroethane Solution	100	ml
BP041	Antimony Trichloride Solution	100	ml
BP042	Antimony Trichloride Solution R1 (Solution A)	100	ml
BP043	Arsenite Solution	100	ml
BP044	Ascorbic Acid Solution	100	ml
BP045	Azomethine H Solution	100	ml
BP046	Barium Chloride Solution	1000	ml
BP047	Barium Chloride Solution R1	1000	ml
BP048	Barium Chloride Solution R2	1000	ml
BP049	Barium Hydroxide Solution	1000	ml
BP050	Bismuth subnitrate solution	500	ml
BP051	Biuret Reagent	1000	ml
BP052	Blocking Solution	1000	ml
BP053	Borate Solution	1000	ml
BP054	Boric Acid Solution	100	ml
BP055	Boric Acid Solution, Cold Saturated	100	ml
BP056	0.05M Bromine	1000	ml
BP057	Bromine Solution	100	ml
BP058	Bromine Solution, Acetic	1000	ml
BP059	Bromine Water	100	ml
BP060	Bromocresol Green Solution	100	ml
BP061	Bromocresol Green-Methyl Red Solution	100	ml
BP062	Bromocresol Purple Solution	100	ml
BP063	Bromophenol Blue Solution	100	ml
BP064	Bromophenol Blue Solution R1	100	ml
BP065	Bromophenol Blue Solution R2	100	ml
BP066	Bromothymol Blue Solution R1	100	ml
BP067	Bromothymol Blue Solution R2	100	ml
BP068	Bromothymol Blue Solution R3	100	ml
BP069	BRP Indicator Solution	100	ml
BP070	Cadmium Iodide Solution	100	ml
BP071	Calcium Chloride Solution	1000	ml
BP072	Calcium Chloride Solution, 0.01M	100	ml
BP073	Calcium Sulphate Solution	100	ml
BP074	Calconcarboxylic acid tritrate	50	ml
BP075	Cerium(III) Nitrate Solution	1000	ml
BP076	Chloral Hydrate Solution	100	ml
BP077	2-Chloroethanol Solution	50	ml
BP078	Chloroform, Acidified	100	ml
BP079	Chloroform Water	1000	ml
BP080	Chromotrope IIB Solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP081	Chromotropic Acid-Sulphuric Acid Solution	100	ml
BP082	Citric-Molybdic Acid Solution	100	ml
BP083	Congo Red Paper	1	pack of 50
BP084	Congo Red Solution	100	ml
BP085	Coomassie Staining Solution	100	ml
BP086	Copper Chloride-Pyridine Reagent	100	ml
BP087	Copper Edetate Solution	1000	ml
BP088	Copper Oxide Solution, Ammoniacal	100	ml
BP089	Copper Sulphate Solution	1000	ml
BP090	Copper Sulphate Solution, Weak	1000	ml
BP091	Copper Tetrammine, Ammoniacal Solution of	100	ml
BP092	m-Cresol Purple Solution	100	ml
BP093	Cresol Red Solution	100	ml
BP094	Crystal Violet Solution	100	ml
BP095	Cupriethylenediamine Hydroxide Solution	1000	ml
BP096	Cupri-citric Solution	1000	ml
BP097	Cupri-citric solution R1	1000	ml
BP098	Cupri-tartaric solution (I+II)	500+500	ml
BP099	Cupri-tartaric Solution R1 (A+B)	500+500	ml
BP100	Cupri-tartaric solution R4 (I+II)	500+500	ml
BP101	Destaining Solution	1000	ml
BP102	Developer Solution	500	ml
BP103	Dichloroacetic Acid Solution	500	ml
BP104	Dichloromethane, Acidified	100	ml
BP105	Dichloromethane Reagent	1000	ml
BP106	Digoxin Reagent	100	ml
BP107	Dimethyl Yellow and Oracet Blue Solution	100	ml
BP108	Dimethyl Yellow Solution	100	ml
BP109	Dimethylaminobenzaldehyde Reagent	100	ml
BP110	Dimethylaminobenzaldehyde Solution R6	100	ml
BP111	Dimidium Bromide-Sulphan Blue Mixed Solution	500	ml
BP112	Dinitrobenzene Solution	1000	ml
BP113	Dinitrobenzoic Acid Solution	1000	ml
BP114	Dioxan Solution	100	ml
BP115	Dioxan Solution R1	50	ml
BP116	Dioxan Stock Solution	100	ml
BP117	Diphenylamine Solution	1000	ml
BP118	Diphenylamine Solution R1	1000	ml
BP119	Diphenylcarbazone mercuric reagent (I+II)	100+100	ml
BP120	Disodium Hydrogen Phosphate Solution	1000	ml
BP121	Dithizone Solution R2	100	ml
BP122	Divanadium Pentoxide Solution in Sulphuric Acid	100	ml
BP123	Ethyl acetate, treated	1000	ml
BP124	Ethylene Oxide Solution R5	10	ml
BP125	Ethylene Oxide Stock Solution	10	ml
BP126	Ethylene Oxide Stock Solution R1	10	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP127	Ferric Chloride Solution R3	100	ml
BP128	Ferroun Solution	100	ml
BP129	Fixing Solution	500	ml
BP130	Fixing Solution for Isoelectric Focusing in Polya...	500	ml
BP131	Fluorenone Solution	500	ml
BP132	Formamide, treated	100	ml
BP133	Fuchsin Solution, Basic	100	ml
BP134	Fuchsin Solution, Decolorised	100	ml
BP135	Fuchsin Solution R1, Decolorised	100	ml
BP136	Holmium perchlorate solution	3x10	ml
BP137	Hydrochloric Acid, Brominated	100	ml
BP138	Hydrochloric Acid, Dilute	1000	ml
BP139	Hydrochloric Acid, Ethanolic (no molarity is stat...	1000	ml
BP140	Hydrochloric Acid, Ethanolic Specify Molarity	1000	ml
BP141	Hydrochloric Acid, Methanolic Specify Molarity	1000	ml
BP142	Hydrochloric Acid R1	1000	ml
BP143	Hydrochloric Acid R1, Dilute	1000	ml
BP144	Hydrochloric Acid R2, Dilute	1000	ml
BP145	Hydrochloric Acid, Stannated	100	ml
BP146	Hydroquinone Solution	100	ml
BP147	Hydroxylamine Hydrochloride Solution R2	100	ml
BP148	Hydroxylamine Solution, Alcoholic	100	ml
BP149	Hydroxylamine solution, alkaline (I-II)	500+500	ml
BP150	Hydroxylamine solution, alkaline R1 (I-II)	100+100	ml
BP151	Hypophosphorous reagent	100	ml
BP152	Imidazole, Recrystallised	100	ml
BP153	Imidazole Solution	100	ml
BP154	Imidazole-Mercury Reagent	100	ml
BP155	Indigo Carmine Solution	100	ml
BP156	Indigo Carmine Solution R1	1000	ml
BP157	Iodine Bromide Solution	1000	ml
BP158	Iodine Chloride Solution	100	ml
BP159	Iodine Monochloride Reagent, Strong	100	ml
BP160	Iodine Solution, Alcoholic	1000	ml
BP161	Iodine Solution, Chloroformic	1000	ml
BP162	IodineSolution R4	1000	ml
BP163	Iodoplatinate Reagent	200	ml
BP164	Iron(III) Chloride Solution, Ethanolic	100	ml
BP165	Iron(III) Chloride Solution R1	1000	ml
BP166	Iron(III) Chloride Solution R2	1000	ml
BP167	Iron(III) Chloride-Sulphamic Acid Reagent	1000	ml
BP168	Iron(III) Nitrate Solution	100	ml
BP169	Isatin Reagent	100	ml
BP170	Isoniazid Solution	200	ml
BP171	Lanthanum Chloride Solution	1000	ml
BP172	Lanthanum Nitrate Solution	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP173	Lead Acetate Cotton	10	g
BP174	Lead Acetate Paper	1	pack of 50
BP175	Lead Acetate Solution	1000	ml
BP176	Lead Nitrate Solution	1000	ml
BP177	Lead Subacetate Solution	100	ml
BP178	Litmus Paper, Blue	1	pack of 50
BP179	Litmus Paper, Red	1	pack of 50
BP180	Litmus Solution	250	ml
BP181	Magnesium Nitrate Solution	100	ml
BP182	Magnesium Nitrate Solution R1 (10 times concentrated)	100	ml
BP183	Magneson Reagent	100	ml
BP184	Magneson Solution	100	ml
BP185	Malachite Green Solution	100	ml
BP186	Mercury(II) Acetate Solution	100	ml
BP187	Mercury(II) Bromide Paper	1	pack of 50
BP188	Mercury(II) Chloride Solution	100	ml
BP189	Mercury(II) Sulphate Solution	100	ml
BP190	Mercury, nitric acid solution of	100	ml
BP191	Metanil Yellow Solution	100	ml
BP193	Methanol, Acidified	1000	ml
BP194	Methanol, Aldehyde-free	1000	ml
BP195	Methanol, Anhydrous	1000	ml
BP196	Methanol, Hydrochloric	100	ml
BP197	Methoxyphenylacetic Acid Reagent	30	ml
BP198	Methyl 4-acetylbenzoate reagent	100	ml
BP199	Methyl Orange Mixed Solution	100	ml
BP200	Methyl Orange Solution	100	ml
BP201	Methyl Orange-Xylene Cyanol FF Solution	100	ml
BP202	Methyl Red Mixed Solution	100	ml
BP203	Methyl Red Solution	100	ml
BP204	Methyl Thymol Blue Mixture	50	ml
BP205	Molybdovanadic Reagent	100	ml
BP206	Mordant Black 11 Mixed Triturate	100	g
BP207	Mordant Black 11 Solution	100	ml
BP208	Mordant Black 11 Triturate	100	g
BP209	Naphthalene Black Solution	100	ml
BP210	Naphthalenediol Reagent Solution	200	ml
BP211	1-Naphthol Solution, Strong	100	ml
BP212	1-Naphtholbenzein Solution	100	ml
BP213	Neutral Red Solution	100	ml
BP214	Nickel Chloride Solution, Ammoniacal	100	ml
BP215	Nile Blue A Solution	100	ml
BP216	Ninhydrin and stannous chloride reagent R1 (A +B)	100+100	ml
BP217	Ninhydrin Reagent I	1000	ml
BP218	Ninhydrin Solution	100	ml
BP219	Ninhydrin Solution R1	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP220	Ninhydrin Solution R2	100	ml
BP221	Sodium metabisulphite 45.5 g/l solution	100	ml
BP222	Ninhydrin Solution R3	100	ml
BP223	Nitric Acid, Lead-free, Dilute	100	ml
BP224	Nitric Acid, Dilute	100	ml
BP225	Nitrochromic Reagent	100	ml
BP226	Nitro-vanado-molybdic Reagent	500	ml
BP227	Oxalic Acid and Sulphuric Acid Solution	1000	ml
BP228	Palladium Chloride Solution (to be diluted)	100	ml
BP229	Pararosaniline Solution, Decolorised	100	ml
BP230	Perchloric Acid Solution	100	ml
BP231	Periodic Acetic Acid Solution	100	ml
BP232	Phenol Red Solution	100	ml
BP233	Phenol Red Solution R1	500	ml
BP234	Phenol Red Solution R2	500	ml
BP235	Phenol Red Solution R3	500	ml
BP236	Phenoldisulphonic Acid Solution	30	ml
BP237	Phenolphthalein Solution	100	ml
BP238	Phenolphthalein Solution R1	100	ml
BP239	Phenolphthalein-Thymol Blue Solution	100	ml
BP240	Phenylhydrazine Hydrochloride Solution	100	ml
BP241	Phloroglucinol Solution	30	ml
BP242	Phosphomolybdotungstic Reagent	100	ml
BP243	Phosphomolybdotungstic Reagent, Dilute	100	ml
BP244	Phosphoric Acid, Dilute	1000	ml
BP245	Phosphoric Acid, Dilute R1	1000	ml
BP246	Phosphotungstic Acid Solution	100	ml
BP247	Picric Acid Solution	100	ml
BP248	Picric Acid Solution R1	100	ml
BP249	Piperazine Dipicrate Solution	100	ml
BP250	Potassium Pyroantimonate Solution	100	ml
BP251	Potassium Chloride, 0.1M	1000	ml
BP252	Potassium Chromate Solution	1000	ml
BP253	Potassium Dichromate Solution	1000	ml
BP254	Potassium Dichromate Solution, Dilute	1000	ml
BP255	Potassium Dichromate Solution R1	1000	ml
BP256	Potassium Dihydrogen Phosphate, 0.2M	1000	ml
BP257	Potassium Hexacyanoferrate(II) Solution	100	ml
BP258	Potassium Hydrogen Phthalate, 0.2M	1000	ml
BP259	Potassium Hydroxide, 2M Alcoholic	100	ml
BP260	Potassium Hydroxide, Ethanolic Specify Molarity	1000	ml
BP261	Potassium Hydroxide in Alcohol (10% v/v), 0.5M	1000	ml
BP262	Potassium Hydroxide, Methanolic Specify Molarity	1000	ml
BP263	Potassium Hydroxide Solution, Alcoholic	100	ml
BP264	Potassium Hydroxide Solution R1, Alcoholic	1000	ml
BP265	Potassium Iodide and Starch Solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP266	Potassium Iodide Solution	1000	ml
BP267	Potassium Iodide Solution, Dilute	1000	ml
BP268	Potassium Iodide Solution, Iodinated	100	ml
BP269	Potassium Iodide Solution, Iodinated R1	100	ml
BP270	Potassium Iodide Solution, Saturated	100	ml
BP271	Potassium Iodobismuthate Solution	100	ml
BP272	Potassium Iodobismuthate Solution, Dilute	500	ml
BP273	Potassium Iodobismuthate Solution R1	500	ml
BP274	Potassium iodobismuthate solution R2 (Stock solution)	100	ml
BP275	Potassium Iodobismuthate Solution R3	100	ml
BP276	Potassium iodobismuthate solution R4	100	ml
BP277	Potassium Iodobismuthate Solution R5	100	ml
BP278	Potassium Mercuri-iodide Solution, Alkaline	100	ml
BP279	Potassium Permanganate and Phosphoric Acid Solution	100	ml
BP280	Potassium Permanganate Solution	1000	ml
BP281	Potassium Permanganate Solution, Dilute	1000	ml
BP282	Potassium Plumbite Solution	100	ml
BP283	Potassium Tetraiodomercurate Solution	100	ml
BP284	Potassium tetraiodomercurate solution, alkaline (I+II) (100+100ml)	100+100	ml
BP285	Potassium Thiocyanate Solution	1000	ml
BP286	Pyridylazonaphthol Solution	100	ml
BP287	Quinaldine Red Solution	100	ml
BP288	Quinoline Solution	100	ml
BP289	Reducing Mixture	55	g
BP290	Ruthenium Red Solution	100	ml
BP291	Salicylaldehyde azine. C ₁₄ H ₁₂ N ₂ O ₂ . (Mr 240.3)	100	ml
BP292	SDS-PAGE Running Buffer (10 times concentrated)	1000	ml
BP293	SDS-PAGE Sample Buffer Solution for Reducing Conditions (Concentrated)	500	ml
BP294	SDS-PAGE Sample Buffer (Concentrated)	125	ml
BP295	Semicarbazide Acetate Solution	100	ml
BP296	Silver Manganese Paper	1	pack of 50
BP297	Silver Nitrate Reagent	100	ml
BP298	Silver Nitrate Solution in Pyridine	100	ml
BP299	Silver Nitrate Solution R1	1000	ml
BP300	Silver Nitrate Solution R2	1000	ml
BP301	Sodium Carbonate Solution	1000	ml
BP302	Sodium Carbonate Solution, Dilute	1000	ml
BP303	Sodium Carbonate Solution R1	1000	ml
BP304	Sodium Carbonate Solution R2	1000	ml
BP305	Sodium Chloride Solution	1000	ml
BP306	Sodium Hydrogen Carbonate Solution	1000	ml
BP307	Sodium Hydroxide, Ethanolic Specify Molarity	1000	ml
BP308	Sodium Hydroxide, Methanolic Specify Molarity	1000	ml
BP309	Sodium Hydroxide Solution	1000	ml
BP310	Sodium Hydroxide Solution, Carbonate-free	1000	ml
BP311	Sodium Hydroxide Solution, Dilute	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP312	Sodium Hydroxide Solution, Methanolic	100	ml
BP313	Sodium Hydroxide Solution R1, Methanolic	100	ml
BP314	Sodium Hydroxide Solution, Strong	1000	ml
BP315	Sodium Iodobismuthate Solution (Solution A)	100	ml
BP316	Sodium Molybdotungstophosphate Solution	500	ml
BP317	Sodium Nitroprusside-Carbonate Solution	100	ml
BP318	Sodium Sulphide Solution	100	ml
BP319	Sodium Sulphide Solution R1	100	ml
BP320	Starch Iodate Paper	1	pack of 50
BP321	Starch Iodide Paper	1	pack of 50
BP322	Starch Iodide Solution	100	ml
BP323	Starch Solution	100	ml
BP324	Sudan Red Solution	100	ml
BP325	Sudan Yellow Solution	100	ml
BP326	Sulphanilic Acid Solution	100	ml
BP327	Sulphanilic Acid Solution R1	100	ml
BP328	Sulphomolybdic Reagent R2	100	ml
BP329	Sulphomolybdic Reagent R3	100	ml
BP330	Sulphuric Acid, Dilute	1000	ml
BP331	Sulphuric Acid, Ethanolic Specify Molarity	1000	ml
BP332	Sulfuric Acid-Formaldehyde Reagent	100	ml
BP333	Sulphuric Acid, Methanolic Specify Molarity	1000	ml
BP334	Tetramethyldiaminodiphenylmethane reagent	100	ml
BP335	Thioacetamide Solution	1000	ml
BP336	Thymol Blue Solution	100	ml
BP337	Thymolphthalein Solution	100	ml
BP338	Tin(II) Chloride Solution	100	ml
BP339	Tin(II) Chloride Solution AsT	100	ml
BP340	Titan Yellow Paper	1	pack of 50
BP341	Titan Yellow Solution	100	ml
BP342	Titanium(III) Chloride-Sulphuric Acid Reagent	100	ml
BP343	TLC Performance Test Solution	10	ml
BP344	o-Tolidine Solution	500	ml
BP345	Trichloroacetic Acid Solution	1000	ml
BP346	Triphenyltetrazolium Chloride Solution	100	ml
BP347	Tris(hydroxymethyl)methylamine Solution	100	ml
BP348	Tris(hydroxymethyl)methylamine Solution, Methanolic	1000	ml
BP349	Vanillin Solution, Phosphoric	100	ml
BP350	Water	5000	ml
BP351	Water, Ammonium-free	1000	ml
BP352	Water, Carbon Dioxide-free	1000	ml
BP353	Water for Chromatography	1000	ml
BP354	Water, Nitrate-free	1000	ml
BP355	Water, Particle-free	1000	ml
BP356	Xanthydrol Reagent (without HCl)	100	ml
BP357	Xanthydrol Solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP358	Xylenol Orange Solution	100	ml
BP359	Xylenol Orange Triturate	50	ml
BP360	Zinc Acetate Solution	1000	ml
BP361	Zinc, Activated	10	g
BP362	Zinc Chloride-Formic Acid Solution	1000	ml
BP363	Zinc Chloride Solution, Iodinated	1000	ml
BP364	Zinc Iodide and Starch Solution	100	ml
BP365	Zirconyl Nitrate Solution	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
BP644	Primary standards Benzoic Acid	100	g
BP645	Primary standards Potassium Bromate	50	g
BP646	Primary standards Potassium Dichromate	100	g
BP647	Primary standards Potassium Hydrogen Phthalate	50	g
BP648	Primary standards Potassium Iodate	50	g
BP649	Primary standards Sodium Carbonate, Anhydrous	50	g
BP650	Primary standards Sodium Chloride	250	g
BP651	Primary standards Sulphanilic Acid	100	g
BP652	Primary standards Zinc	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 xM. The molarity of the volumetric solutions is determined by an appropriate number of titrations. The repeatability does not exceed 0.2% (relative standard deviation).

Ref. Number	Description	Volume (other volumes also possible)	msr
BP653	Acetic Acid 0.1M	1000	ml
BP654	Ammonium and cerium nitrate 0.1 M	1000	ml
BP655	Ammonium and cerium nitrate 0.01 M	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP656	Ammonium and cerium sulphate 0.1M	1000	ml
BP657	Ammonium and cerium sulphate 0.01M	1000	ml
BP658	Ammonium Iron(II) Sulphate	1000	ml
BP659	Ammonium Iron(III) Sulphate	1000	ml
BP660	Ammonium thiocyanate 0.1M	1000	ml
BP661	Barium chloride 0.1M	1000	ml
BP662	Barium perchlorate 0.05M	1000	ml
BP663	Barium perchlorate 0.025M	1000	ml
BP664	Benzethonium chloride 0.004 M	1000	ml
BP665	Bromine 0.05M	1000	ml
BP666	Cerium (IV) sulphate 0.1M	1000	ml
BP667	Copper sulphate 0.02M	1000	ml
BP668	Disodium edetate 0.05M	1000	ml
BP669	Disodium edetate 0.02M	1000	ml
BP670	Disodium edetate 0.01M	1000	ml
BP671	Hydrochloric acid 6M	1000	ml
BP672	Hydrochloric acid 3M	1000	ml
BP673	Hydrochloric acid 2M	1000	ml
BP674	Hydrochloric acid 1M	1000	ml
BP675	Hydrochloric acid 0.1M	1000	ml
BP676	Iodine 0.5M	1000	ml
BP677	Iodine 0.05M	1000	ml
BP678	Iodine 0.01M	1000	ml
BP679	Iron(II) Sulphate 0.1M	1000	ml
BP680	Lead nitrate 0.05M	1000	ml
BP681	Lead nitrate 0.1M	1000	ml
BP682	Magnesium chloride 0.1M	1000	ml
BP683	Magnesium Sulphate 0.05M	1000	ml
BP684	Nitric acid 1M	1000	ml
BP685	Perchloric acid 0.1M	1000	ml
BP686	Perchloric acid 0.05M	1000	ml
BP687	Potassium bromate 0.033M	1000	ml
BP688	Potassium bromate 0.02M	1000	ml
BP689	Potassium bromate 0.0167M	1000	ml
BP690	Potassium bromate 0.0083M	1000	ml
BP691	Potassium dichromate 0.0167M	1000	ml
BP692	Potassium Hydroxide 0.1M	1000	ml
BP693	Potassium Hydroxide 1M	1000	ml
BP694	Potassium Hydroxide alcoholic 0.5M	1000	ml
BP695	Potassium Hydroxide alcoholic 0.1M	1000	ml
BP696	Potassium Hydroxide alcoholic 0.01M	1000	ml
BP697	Potassium Hydroxide in alcohol (60% v/v) 0.5M	1000	ml
BP698	Potassium Hydroxide in alcohol (90% v/v) 1M	1000	ml
BP699	Potassium iodate 0.05M	1000	ml
BP700	Potassium iodide 0.001M	1000	ml
BP701	Potassium permanganate 0.02M	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP702	Silver nitrate 0.1M	1000	ml
BP703	Silver nitrate 0.001M	1000	ml
BP704	Sodium arsenite 0.1M	500	ml
BP705	Sodium hydroxide 1M	1000	ml
BP706	Sodium hydroxide 0.1M	1000	ml
BP707	Sodium hydroxide, ethanolic 0.1M	1000	ml
BP708	Sodium methoxide 0.1M	1000	ml
BP709	Sodium nitrite 0.1M	1000	ml
BP710	Sodium thiosulphate 0.1M	1000	ml
BP711	Sulphuric acid 0.5M	1000	ml
BP712	Sulphuric acid 0.05M	1000	ml
BP713	Tetrabutylammonium hydroxide 0.1M	1000	ml
BP714	Tetrabutylammonium hydroxide in 2-propanol 0.1M	1000	ml
BP715	Tetrabutylammonium iodide 0.01M	1000	ml
BP716	Zinc chloride 0.05M	1000	ml
BP717	Zinc sulphate 0.1M	1000	ml

Appendix I C. Standard solutions

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

Ref. Number	Description	Volume (other volumes also possible)	msr
BP366	Acetaldehyde Standard Solution 100 mg/l C ₂ H ₄ O	500	ml
BP367	Acetaldehyde Standard Solution 100 mg/l C ₂ H ₄ O R1	500	ml
BP368	Aluminium Standard Solution 200 mg/l Al	100	ml
BP369	Aluminium Standard Solution 100 mg/l Al	100	ml
BP370	Aluminium Standard Solution 10 mg/l Al	100	ml
BP371	Aluminium Standard Solution 2 mg/l Al	100	ml
BP372	Ammonium Standard Solution 100 mg/l NH ₄	100	ml
BP373	Ammonium Standard Solution 2.5 mg/l NH ₄	100	ml
BP374	Ammonium Standard Solution (1 ppm NH ₄) concentrated	100	ml
BP375	Antimony Standard Solution 1 mg/l Sb	100	ml
BP376	Antimony Standard Solution 100 mg/l Sb	100	ml
BP377	Arsenic Standard Solution 10 mg/l As	100	ml
BP378	Arsenic Standard Solution 1 mg/l As	100	ml
BP379	Arsenic Standard Solution 0.1 mg/l As	100	ml
BP380	Barium Standard Solution 0.1% Ba	100	ml
BP381	Barium Standard Solution 50 mg/l Ba	100	ml
BP382	Bismuth Standard Solution 100 mg/l Bi	100	ml
BP383	Cadmium Standard Solution 0.1% Cd	100	ml
BP384	Cadmium Standard Solution 10 mg/l Cd	100	ml
BP385	Calcium Standard Solution 400 mg/l Ca	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP386	Calcium Standard Solution 100 mg/l Ca	100	ml
BP387	Calcium Standard Solution Alcoholic 100 mg/l Ca	100	ml
BP388	Calcium Standard Solution R1 100 mg/l Ca	100	ml
BP389	Calcium Standard Solution 10 mg/l Ca	100	ml
BP390	Chloride Standard Solution 50 mg/l Cl	100	ml
BP391	Chloride Standard Solution 8 mg/l Cl	100	ml
BP392	Chloride Standard Solution 5 mg/l Cl	100	ml
BP393	Chromium Standard Solution 0.1% Cr	100	ml
BP394	Chromium Standard Solution 100 mg/l Cr	100	ml
BP395	Chromium Standard Solution 0.1 mg/l Cr	100	ml
BP396	Cobalt Standard Solution 100 mg/l Co	100	ml
BP397	Copper Standard Solution 0.1% Cu	100	ml
BP398	Copper Standard Solution 10 mg/l Cu	100	ml
BP399	Copper Standard Solution 0.1 mg/l Cu	100	ml
BP400	Ferricyanide Standard Solution 50 mg/l Fe(CN) ₆	100	ml
BP401	Ferrocyanide Standard Solution 100 mg/l Fe(CN) ₆	100	ml
BP402	Fluoride Standard Solution 10 mg/l F	100	ml
BP404	Formaldehyde Standard Solution 5 mg/l CH ₂ O	100	ml
BP405	Germanium Standard Solution 100 mg/l Ge	100	ml
BP406	Glucose Standard Solution	100	ml
BP407	Glyoxal Standard Solution 20 mg/l C ₂ H ₂ O ₂	100	ml
BP408	Iodide Standard Solution 20 mg/l I	100	ml
BP409	Iodide Standard Solution (10 ppm I) concentrated	100	ml
BP410	Iron Standard Solution 0.1% Fe	100	ml
BP411	Iron Standard Solution 250 mg/l Fe	100	ml
BP412	Iron Standard Solution 20 mg/l Fe	100	ml
BP413	Iron Standard Solution 10 mg/l Fe	100	ml
BP414	Iron Standard Solution 8 mg/l Fe	100	ml
BP415	Iron Standard Solution 2 mg/l Fe	100	ml
BP416	Iron Standard Solution 1 mg/l Fe	100	ml
BP417	Lead Standard Solution 0.1% Pb	100	ml
BP418	Lead Standard Solution 0.1% Pb R1	100	ml
BP419	Lead Standard Solution 100 mg/l Pb	100	ml
BP420	Lead Standard Solution 20 mg/l Pb	100	ml
BP421	Lead Standard Solution 10 mg/l Pb	100	ml
BP422	Lead Standard Solution 10 mg/l Pb R1	100	ml
BP423	Lead Standard Solution 10 mg/l Pb R2	100	ml
BP424	Lead Standard Solution 2 mg/l Pb	100	ml
BP425	Lead Standard Solution 1 mg/l Pb	100	ml
BP426	Lead Standard Solution 0.5 mg/l Pb	100	ml
BP427	Lead Standard Solution 0.1 mg/l Pb	100	ml
BP428	Lithium Standard Solution 100 mg/l Li	100	ml
BP429	Magnesium Standard Solution 0.1% Mg	100	ml
BP430	Magnesium Standard Solution 100 mg/l Mg	100	ml
BP431	Magnesium Standard Solution 10 mg/l Mg	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP432	Magnesium Standard Solution 10 mg/l Mg R1	100	ml
BP433	Manganese Standard Solution 100 mg/l Mn	100	ml
BP434	Mercury Standard Solution 1000 mg/l Hg	100	ml
BP435	Mercury Standard Solution 100 mg/l Hg	100	ml
BP436	Mercury Standard Solution 10 mg/l Hg	100	ml
BP437	Mercury Standard Solution 5 mg/l Hg	100	ml
BP438	Nickel Standard Solution 10 mg/l Ni	100	ml
BP439	Nickel Standard Solution 0.2 mg/l Ni	100	ml
BP440	Nickel Standard Solution 0.1 mg/l Ni	100	ml
BP441	Nitrate Standard Solution 100 mg/l NO ₃	100	ml
BP442	Nitrate Standard Solution 10 mg/l NO ₃	100	ml
BP443	Nitrate Standard Solution 2 mg/l NO ₃	100	ml
BP444	Nitrite Standard Solution 20 mg/l NO ₂	100	ml
BP445	Palladium Standard Solution 500 mg/l Pd	100	ml
BP446	Palladium Standard Solution 20 mg/l Pd	100	ml
BP447	Palladium Standard Solution 0.5 mg/l Pd	100	ml
BP448	Phosphate Standard Solution 200 mg/l PO ₄	100	ml
BP449	Phosphate Standard Solution 100 mg/l PO ₄	100	ml
BP450	Phosphate Standard Solution 5 mg/l PO ₄	100	ml
BP451	Platinum Standard Solution 30 mg/l Pt	100	ml
BP452	Potassium Standard Solution 0.2 % K	100	ml
BP453	Potassium Standard Solution 600 mg/l K	100	ml
BP454	Potassium Standard Solution 100 mg/l K	100	ml
BP455	Potassium Standard Solution 20 mg/l K	100	ml
BP456	Selenium Standard Solution 100 mg/l Se	100	ml
BP457	Selenium Standard Solution 1 mg/l Se	100	ml
BP458	Silver Standard Solution 5 mg/l Ag	100	ml
BP459	Sodium Standard Solution 200 mg/l Na	100	ml
BP460	Sodium Standard Solution 50 mg/l Na	100	ml
BP461	Strontium Standard Solution 1.0% Sr	100	ml
BP462	Sulphate Standard Solution 100 mg/l SO ₄	100	ml
BP463	Sulphate Standard Solution 10 mg/l SO ₄	100	ml
BP464	Sulphate Standard Solution 10 mg/l SO ₄ R1	100	ml
BP465	Sulphite Standard Solution 80 mg/l SO ₂	100	ml
BP466	Thallium Standard Solution 10 mg/l Tl	100	ml
BP467	Tin Standard Solution 0.1 mg/l Sn	100	ml
BP468	Titanium Standard Solution 100 mg/l Ti	100	ml
BP469	Vanadium Standard Solution 1 g/l V	100	ml
BP470	Zinc Standard Solution 5 mg/ml Zn	100	ml
BP471	Zinc Standard Solution 100 mg/l Zn	100	ml
BP472	Zinc Standard Solution 25 mg/l Zn	100	ml
BP473	Zinc Standard Solution 10 mg/l Zn	100	ml
BP474	Zinc Standard Solution 5 mg/l Zn	100	ml
BP475	Zirconium Standard Solution 1 g/l Zr	100	ml

Appendix I D. Buffer solutions

Buffer solutions are prepared using carbon dioxide-free water.

Ref. Number	Description	Volume (other volumes also possible)	msr
BP476	Acetate Buffer pH 2.4	1000	ml
BP477	Acetate Buffer pH 2.8	1000	ml
BP478	Acetate Buffer pH 3.4	1000	ml
BP479	Acetate Buffer pH 3.5	1000	ml
BP480	Acetate Buffer pH 3.7	1000	ml
BP481	Acetate Buffer pH 4.4	1000	ml
BP482	Acetate Buffer pH 4.6	1000	ml
BP483	Acetate Buffer pH 5.0	1000	ml
BP484	Acetate Buffer pH 6.0	1000	ml
BP485	Acetate Buffer Solution pH 4.5	1000	ml
BP486	Acetate Buffer Solution pH 4.7	1000	ml
BP487	Acetate Buffer Solution pH 5.0	1000	ml
BP488	Acetate–Edetate Buffer Solution pH 5.5	1000	ml
BP489	Acetone Solution, Buffered	1000	ml
BP490	Ammonia Buffer pH 10.0	1000	ml
BP491	Ammonia Buffer pH 10.9	1000	ml
BP492	Ammonia Buffer Dilute pH 10.9	1000	ml
BP493	Ammonium Carbonate Buffer Solution 0.1M pH 10.3	1000	ml
BP494	Ammonium Chloride Buffer Solution pH 9.5	1000	ml
BP495	Ammonium Chloride Buffer Solution pH 10.4	1000	ml
BP496	Borate Buffer pH 7.5	1000	ml
BP497	Borate Buffer pH 8.0	1000	ml
BP498	Borate Buffer pH 9.0	1000	ml
BP499	Borate Buffer pH 9.6	1000	ml
BP500	Borate Buffer Solution 0.0015M pH 8.0	1000	ml
BP501	Borate Buffer Solution pH 10.4	1000	ml
BP502	Boric Buffer pH 9.0	1000	ml
BP503	Buffer (Acetate) Solution pH 5.0	1000	ml
BP504	Buffer (HEPES) Solution pH 7.5	1000	ml
BP505	Buffer (Phosphate) Solution pH 9.0	1000	ml
BP506	Buffer Solution pH 2.0	1000	ml
BP507	Buffer Solution pH 2.2	1000	ml
BP508	Buffer Solution pH 2.5	1000	ml
BP509	Buffer Solution R1 pH 2.5	1000	ml
BP510	Buffer Solution pH 3.0	1000	ml
BP511	Buffer Solution pH 3.7	1000	ml
BP512	Buffer Solution pH 5.2	1000	ml
BP513	Buffer Solution pH 5.5	1000	ml
BP514	Buffer Solution pH 6.5	1000	ml
BP515	Buffer Solution pH 6.6	1000	ml
BP516	Buffer Solution pH 7.0	1000	ml
BP517	Buffer Solution pH 7.4	1000	ml

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

Ref. Number	Description	Volume (other volumes also possible)	msr
BP564	Phosphate Buffer 0.1M Mixed pH 7.0	1000	ml
BP565	Phosphate Buffer pH 7.5	1000	ml
BP566	Phosphate Buffer Mixed pH 10	1000	ml
BP567	Phosphate Buffer, 0.025M Standard	1000	ml
BP568	Phosphate Buffer Solution pH 2.0	1000	ml
BP569	Phosphate Buffer Solution pH 2.8	1000	ml
BP570	Phosphate Buffer Solution pH 3.0	1000	ml
BP571	Phosphate Buffer Solution 0.1M pH 3.0	1000	ml
BP572	Phosphate Buffer Solution R1 pH 3.0	1000	ml
BP573	Phosphate Buffer Solution pH 3.2	1000	ml
BP574	Phosphate Buffer Solution R1 pH 3.2	1000	ml
BP575	Phosphate Buffer Solution pH 3.5	1000	ml
BP576	Phosphate Buffer Solution 0.05M pH 4.5	1000	ml
BP577	Phosphate Buffer Solution pH 5.0	1000	ml
BP578	Phosphate Buffer Solution 0.067M pH 5.4	1000	ml
BP579	Phosphate Buffer Solution pH 5.5	1000	ml
BP580	Phosphate Buffer Solution pH 5.6	1000	ml
BP581	Phosphate Buffer Solution pH 5.8	1000	ml
BP582	Phosphate Buffer Solution R1 pH 6.0	1000	ml
BP583	Phosphate Buffer Solution R2 pH 6.0	1000	ml
BP584	Phosphate Buffer Solution 0.1M pH 6.3	1000	ml
BP585	Phosphate Buffer Solution pH 6.4	1000	ml
BP586	Phosphate Buffer Solution pH 6.5	1000	ml
BP587	Phosphate Buffer Solution 0.1M pH 6.5	1000	ml
BP588	Phosphate Buffer Solution pH 6.8	1000	ml
BP589	Phosphate Buffer Solution pH 7.0	1000	ml
BP590	Phosphate Buffer Solution R1 pH 7.0	1000	ml
BP591	Phosphate Buffer Solution R2 pH 7.0	1000	ml
BP592	Phosphate Buffer Solution R3 pH 7.0	1000	ml
BP593	Phosphate Buffer Solution R4 pH 7.0	1000	ml
BP594	Phosphate Buffer Solution R5 pH 7.0	1000	ml
BP595	Phosphate Buffer Solution 0.025M pH 7.0	1000	ml
BP596	Phosphate Buffer Solution 0.03M pH 7.0	1000	ml
BP597	Phosphate Buffer Solution 0.05M pH 7.0	1000	ml
BP598	Phosphate Buffer Solution 0.063M pH 7.0	1000	ml
BP599	Phosphate Buffer Solution pH 7.2	1000	ml
BP600	Phosphate Buffer Solution pH 7.4	1000	ml
BP601	Phosphate Buffer Solution 0.33M pH 7.5	1000	ml
BP602	Phosphate Buffer Solution 0.02M pH 8.0	1000	ml
BP603	Phosphate Buffer Solution 0.1M pH 8.0	1000	ml
BP604	Phosphate Buffer Solution 1M pH 8.0	1000	ml
BP643	Phosphate Buffer Solution pH 8.5	1000	ml
BP605	Phosphate Buffer Solution pH 9.0	1000	ml
BP606	Phosphate–Citrate Buffer Solution pH 5.5	1000	ml
BP607	Phthalate Buffer pH 3.6	1000	ml
BP608	Phthalate Buffer Solution pH 4.4	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
BP609	Phthalate Buffer Solution 0.5M pH 6.4	1000	ml
BP610	SalinePhosphate-buffered pH 6.4	1000	ml
BP611	Saline Phosphate-buffered pH 6.8	1000	ml
BP612	Saline Phosphate-albumin Buffered pH 7.2	1000	ml
BP613	Saline R1, Phosphate-albumin Buffered pH 7.2	1000	ml
BP614	Saline , Phosphate-buffered pH 7.4	1000	ml
BP615	Sodium Acetate Buffer Solution pH 4.5	1000	ml
BP616	Sodium Acetate Solution , Buffered pH 6.0	1000	ml
BP617	Sodium Citrate Buffer Solution pH 7.8 (0.034M Sodium Citrate, 0.101M Sodium Chloride)	1000	ml
BP618	Succinate Buffer Solution pH 4.6	1000	ml
BP619	Sulphate Buffer Solution pH 2.0	1000	ml
BP620	Tetrabutylammonium Buffer Solution pH 7.0	1000	ml
BP621	Total Ionic Strength Adjustment Buffer R1	1000	ml
BP622	Total Ionic Strength Adjustment Buffer	1000	ml
BP623	Tris-acetate Buffer Solution pH 8.	1000	ml
BP624	Tris-chloride Buffer pH 7.4	1000	ml
BP625	Tris-chloride Buffer pH 7.5	1000	ml
BP626	Tris-chloride Buffer R1 pH 7.5	1000	ml
BP627	Tris-chloride Buffer pH 8.1	1000	ml
BP628	Tris-chloride Buffer pH 8.6	1000	ml
BP629	Tris-EDTA Buffer pH 8.4	1000	ml
BP630	Tris-EDTA BSA Buffer Solution pH 8.4	1000	ml
BP631	Tris-glycine Buffer Solution pH 8.3	1000	ml
BP632	Tris-hydrochloride Buffer Solution pH 8.3	1000	ml
BP633	Tris-hydrochloride Buffer Solution 1M pH 8.0	1000	ml
BP634	Tris-hydrochloride Buffer Solution 1M pH 6.8	1000	ml
BP635	Tris-hydrochloride Buffer Solution pH 8.0	1000	ml
BP636	Tris-hydrochloride Buffer Solution 1,5M pH 8.8	1000	ml
BP637	Tris(hydroxymethyl)aminomethane Sodium Chloride Buffer solution pH 7.4	1000	ml
BP638	Tris(hydroxymethyl)aminomethane Sodium Chloride Buffer Solution pH 7.4 R1	1000	ml
BP639	Tris-sodium Acetate Buffer Solution pH 7.4	1000	ml
BP640	Tris-sodium Acetate-sodium Chloride Buffer Solution	1000	ml
BP641	Tris-sodium Acetate Buffer Solution pH 8.0	1000	ml
BP642	Tris-sodium Acetate-Sodium Chloride Buffer Solution	1000	ml

Appendix IV A. Clarity of Solution

Ref. Number	Description	Volume (other volumes also possible)	msr
BPC001	Primary opalescent suspension	100	ml
BPC002	Hydrazine sulfate solution	100	ml
BPC003	Hexamethylenetetramine solution	100	ml

Appendix IV B. Colour of Solution

Primary solutions

Ref. Number	Description	Volume (other volumes also possible)	msr
BPCB004	Blue Primary Solution	100	ml
BPCR003	Red solution	100	ml
BPCY002	Yellow solution	100	ml

Opalescence and coloration Solutions BP

Ref. Number	Description	Volume (other volumes also possible)	msr
BPB005	Standard solution B (brown)	125	ml
BPB105	Colour Reference Solutions B: B1-B9 (9x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	9x10 + 1x10	ml
BPBY006	Standard solution BY (brownish yellow)	125	ml
BPBY106	Colour Reference Solutions BY: BY1-BY7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10	ml
BPDM015	Hydrochloric Acid (Dilution Matrix)	1000	ml
BPGY008	Standard solution GY (greenish yellow)	125	ml
BPGY108	Colour Reference Solutions GY: GY1-GY7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10	ml
BPR009	Standard solution R (red)	125	ml
BPR109	Colour Reference Solutions R: R1-R7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10	ml
BPY007	Standard solution Y (yellow)	125	ml
BPY107	Colour Reference Solutions Y: Y1-Y7 (7x10 ml ampoules) + 10 ml Hydrochloric acid (10 g/L HCl)	7x10 + 1x10	ml

Japanese Pharmacopoeia products

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.

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

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH036	Sodium Hydroxide 0.5 mol/l	1000	ml
JPH037	Sodium Hydroxide 0.2 mol/l	1000	ml
JPH038	Sodium Hydroxide 0.1 mol/l	1000	ml
JPH039	Sodium Lauryl Sulfate 0.01 mol/l	1000	ml
JPH040	Sodium Methoxide 0.1 mol/l	1000	ml
JPH041	Sodium Methoxide-1,4-Dioxane 0.1 mol/l	1000	ml
JPH042	Sodium Nitrite 0.1 mol/l	1000	ml
JPH043	Sodium Oxalate 0.005 mol/l	1000	ml
JPH044	Sodium Thiosulfate 0.1 mol/l	1000	ml
JPH045	Sulfuric Acid 0.5 mol/l	1000	ml
JPH046	Sulfuric Acid 0.25 mol/l	1000	ml
JPH047	Sulfuric Acid 0.1 mol/l	1000	ml
JPH048	Sulfuric Acid 0.05 mol/l	1000	ml
JPH049	Titanium (III) Chloride 0.1 mol/l	100	ml
JPH050	Zinc 0.1 mol/L	1000	ml
JPH051	Zinc Acetate 0.05 mol/l	1000	ml
JPH052	Zinc Acetate 0.02 mol/l	1000	ml
JPH053	Zinc Sulfate 0.1 mol/l	1000	ml

Standard Solutions

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

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH054	Borate pH Standard Solution	200	ml
JPH055	Calcium Hydroxide pH Standard Solution	200	ml
JPH056	Carbonate pH Standard Solution	200	ml
JPH057	Oxalate pH Standard Solution	200	ml
JPH058	pH Standard Solution, Borate	200	ml
JPH059	pH Standard Solution, Calcium Hydroxide	200	ml
JPH060	pH Standard Solution, Carbonate	200	ml
JPH061	pH Standard Solution, Oxalate	200	ml
JPH062	pH Standard Solution, Phosphate	200	ml
JPH063	pH Standard Solution, Phthalate	200	ml
JPH064	Phosphate pH Standard Solution	200	ml
JPH065	Phthalate pH Standard Solution	200	ml
JPH066	Standard Aluminum Stock Solution	100	ml
JPH067	Standard Ammonium Solution	100	ml
JPH068	Standard Arsenic Stock Solution	100	ml
JPH069	Standard Boron Solution	100	ml
JPH070	Standard Cadmium Stock Solution	100	ml
JPH071	Standard Calcium Solution	100	ml
JPH072	Standard Calcium Solution for Atomic Absorption Spectrophotometry	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH073	Standard Copper Stock Solution	100	ml
JPH074	Standard Cyanide Stock Solution	100	ml
JPH075	Standard Fluorine Solution	100	ml
JPH076	Standard Gold Stock Solution	100	ml
JPH077	Standard Gold Solution for Atomic Absorption Spectrophotometry	100	ml
JPH078	Standard Iron Solution	100	ml
JPH079	Standard Lead Stock Solution	100	ml
JPH080	Standard Mercury Solution (100 times concentrated)	100	ml
JPH081	Standard Methanol Solution	100	ml
JPH082	Standard Nickel Solution	100	ml
JPH083	Standard Nitric Acid Solution	100	ml
JPH084	Standard Phosphoric Acid Solution	100	ml
JPH085	Standard Potassium Stock Solution	100	ml
JPH086	Standard Selenium Stock Solution	100	ml
JPH087	Standard Silver Stock Solution	100	ml
JPH088	Standard Sodium Dodecylbenzene Sulfonate Solution	100	ml
JPH089	Standard Sodium Stock Solution	100	ml
JPH090	Standard Tin Solution (100 times concentrated)	100	ml
JPH091	Standard Zinc Stock Solution	100	ml
JPH092	Standard Zinc Solution for Atomic Absorption Spectrophotometry	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

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH093	Cobalt (II) Chloride Colorimetric Stock Solution	100	ml
JPH094	Copper (II) Sulfate Colorimetric Stock Solution	100	ml
JPH095	Iron (III) Chloride Colorimetric Stock Solution	100	ml
JPH096	Matching Fluids for Color JP - kit of 20 fluids (A-T)	20X10	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

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH097	Acetate buffer solution pH 3.5	100	ml
JPH098	Acetate buffer solution pH 4.5	100	ml
JPH099	Acetate buffer solution pH 5.4	100	ml
JPH100	Acetate buffer solution 0.01 mol/l pH 5.0	100	ml
JPH101	Acetate buffer solution pH 5.5	100	ml
JPH102	Acetic acid-ammonium acetate buffer solution pH 3.0	100	ml
JPH103	Acetic acid-ammonium acetate buffer solution pH 4.5	100	ml
JPH104	Acetic acid-ammonium acetate buffer solution pH 4.8	100	ml
JPH105	Acetic acid dilute	100	ml
JPH106	Acetic acid-potassium acetate buffer solution pH 4.3	100	ml
JPH107	Acetic acid-sodium acetate buffer solution 0.05 mol/l pH 4.0	100	ml
JPH108	Acetic acid-sodium acetate buffer solution 0.05 mol/L pH 4.0	100	ml
JPH109	Acetic acid-sodium acetate buffer solution pH 4.5	100	ml
JPH110	Acetic acid-sodium acetate buffer solution for iron limit test pH 4.5	100	ml
JPH111	Acetic acid-sodium acetate buffer solution pH 4.7	100	ml
JPH112	Acetic acid-sodium acetate buffer solution pH 5.0	100	ml
JPH113	Acetic acid-sodium acetate buffer solution pH 5.5	100	ml
JPH114	Acetic acid-sodium acetate buffer solution pH 5.6	100	ml
JPH115	Acetic acid-sodium acetate buffer solution 1 mol/l pH 5.0	100	ml
JPH116	Acetic acid-sodium acetate buffer solution 0.1 mol/l pH 4.0	100	ml
JPH117	Acetic acid-sodium acetate buffer solution 0.05 mol/l pH 4.6	100	ml
JPH118	Acetic acid-sodium acetate TS	100	ml
JPH119	Acetic acid-sodium acetate TS 0.02 mol/l	100	ml
JPH120	Acetic acid TS 6 mol/l	100	ml
JPH121	Acetic acid TS 0.25 mol/l	100	ml
JPH122	Acetic acid (100)-sulfuric acid TS	100	ml
JPH123	Acetic acid (31)	100	ml
JPH124	Acetic anhydride-pyridine TS	100	ml
JPH125	Alizarin complexone TS	100	ml
JPH126	Alizarin red S TS	100	ml
JPH127	Alizarin yellow GG-thymolphthalein TS	100	ml
JPH128	Alizarin yellow GG TS	100	ml
JPH129	Alkali copper TS	100	ml
JPH130	Alkaline copper TS	100	ml
JPH131	Alkaline glycerin TS	100	ml
JPH132	Aluminon TS	100	ml
JPH133	Aluminum (III) chloride TS	100	ml
JPH134	4-Aminoacetophenone TS	100	ml
JPH135	Ammonia-ammonium acetate buffer solution pH 8.0	100	ml
JPH136	Ammonia-ammonium acetate buffer solution pH 8.5	100	ml
JPH137	Ammonia-ammonium chloride buffer solution pH 8.0	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH138	Ammonia-ammonium chloride buffer solution pH 10.0	100	ml
JPH139	Ammonia-ammonium chloride buffer solution pH 10.7	100	ml
JPH140	Ammonia-ammonium chloride buffer solution pH 11.0	100	ml
JPH141	Ammonia copper TS	100	ml
JPH142	Ammonia-ethanol TS	100	ml
JPH143	Ammonia-saturated 1-butanol TS	100	ml
JPH144	Ammonia TS	100	ml
JPH144a	Ammonia TS	1000	ml
JPH145	Ammonia water 1 mol/l	100	ml
JPH146	Ammonia water 13.5 mol/l	100	ml
JPH147	Ammonium acetate TS	100	ml
JPH148	Ammonium acetate TS 0.5 mol/l	100	ml
JPH149	Ammonium carbonate TS	100	ml
JPH150	Ammonium chloride-ammonia TS	100	ml
JPH151	Ammonium chloride buffer solution pH 10	100	ml
JPH152	Ammonium chloride TS	100	ml
JPH153	Ammonium dihydrogenphosphate TS 0.02 mol/l	100	ml
JPH154	Ammonium formate buffer solution 0.05 mol/l pH 4.0	100	ml
JPH155	Ammonium iron (III) sulfate TS	100	ml
JPH156	Ammonium iron (III) sulfate TS acidic	100	ml
JPH157	Ammonium iron (III) sulfate TS dilute	100	ml
JPH158	Ammonium oxalate TS	100	ml
JPH159	Ammonium peroxodisulfate 10% TS	100	ml
JPH160	Ammonium sulfate buffer solution	100	ml
JPH161	Ammonium thiocyanate-cobalt (II) nitrate TS	100	ml
JPH162	Ammonium thiocyanate TS	100	ml
JPH163	Anthrone TS	100	ml
JPH164	Arsenic (III) trioxide TS	100	ml
JPH165	Arsenic trioxide TS	100	ml
JPH167	Barium chloride TS	100	ml
JPH168	Barium nitrate TS	100	ml
JPH169	Bismuth nitrate TS	100	ml
JPH170	Bismuth potassium iodide TS	100	ml
JPH171	Bismuth subnitrate TS	100	ml
JPH172	Borate-hydrochloric acid buffer solution pH 9.0	100	ml
JPH173	Boric acid-methanol buffer solution	100	ml
JPH174	Boric acid-potassium chloride-sodium hydroxide buffer solution pH 9.0	200	ml
JPH175	Boric acid-potassium chloride-sodium hydroxide buffer solution pH 9.2	200	ml
JPH176	Boric acid-potassium chloride-sodium hydroxide buffer solution pH 9.6	200	ml
JPH177	Boric acid-potassium chloride-sodium hydroxide buffer solution pH 10.0	200	ml
JPH178	Boric acid 0.2 mol/l - potassium chloride 0.2 mol/l TS for buffer solution	200	ml
JPH179	Bromine-acetic acid TS	100	ml
JPH180	Bromine TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH181	Bromocresol green-crystal violet TS	100	ml
JPH182	Bromocresol green-methyl red TS	100	ml
JPH183	Bromocresol green-sodium hydroxide-acetic acid-sodium acetate TS	100	ml
JPH184	Bromocresol green-sodium hydroxide-ethanol TS	100	ml
JPH185	Bromocresol green-sodium hydroxide TS	100	ml
JPH186	Bromocresol green TS	100	ml
JPH187	Bromocresol purple-dipotassium hydrogenphosphatecitric acid TS	100	ml
JPH188	Bromocresol purple-sodium hydroxide TS	100	ml
JPH189	Bromocresol purple TS	100	ml
JPH190	Bromophenol blue-potassium biphthalate TS	100	ml
JPH191	Bromophenol blue TS	100	ml
JPH192	Bromophenol blue TS 0.05%	100	ml
JPH193	Bromophenol blue TS pH 7.0	100	ml
JPH194	N-Bromosuccinimide TS	1000	ml
JPH195	Bromothymol blue-sodium hydroxide TS	100	ml
JPH196	Bromothymol blue TS	100	ml
JPH197	Calcium chloride TS	100	ml
JPH198	Carbonate buffer solution 0.1 mol/L pH 9.6	100	ml
JPH199	Cerium (III) nitrate TS	100	ml
JPH200	Cerium (IV) tetraammonium sulfate-phosphoric acid TS	100	ml
JPH201	Cerium (IV) tetraammonium sulfate TS	100	ml
JPH202	Chloral hydrate TS	100	ml
JPH203	Chromium (VI) trioxide TS	100	ml
JPH204	Chromotropic acid TS	100	ml
JPH205	Citric acid-acetic acid TS	100	ml
JPH206	Citric acid-phosphate-acetonitrile TS	100	ml
JPH207	Citric acid TS 0.01 mol/l	100	ml
JPH208	Citric acid TS for buffer solution 1 mol/l	100	ml
JPH209	Cobalt (II) chloride-ethanol TS	100	ml
JPH210	Cobalt (II) chloride TS	100	ml
JPH211	Congo red TS	100	ml
JPH212	Copper (II) acetate TS strong	100	ml
JPH213	Copper (II) chloride-acetone TS	100	ml
JPH214	Copper (II) sulfate solution alkaline	1000	ml
JPH215	Copper (II) sulfate TS	100	ml
JPH216	m-Cresol purple TS	100	ml
JPH217	Cresol red TS	100	ml
JPH218	Crystal violet TS	100	ml
JPH219	Cupriethylenediamine TS 1 mol/l	1000	ml
JPH220	2,3-Diaminonaphthalene TS	100	ml
JPH221	2,4-Diaminophenol hydrochloride TS	100	ml
JPH222	Dichlorofluorescein TS	100	ml
JPH223	Dilute bismuth subnitrate-potassium iodide TS for spray	100	ml
JPH224	4-Dimethylaminobenzaldehyde-hydrochloric acid TS	100	ml
JPH225	4-Dimethylaminobenzylidene rhodanine TS	100	ml
JPH226	1,3-Dinitrobenzene TS alkaline (0.008mol/l solution)	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH227	4,4-Dinitrophenylhydrazine-diethylene glycol dimethyl ether TS	100	ml
JPH228	4,4-Dinitrophenylhydrazine-ethanol TS	100	ml
JPH229	4,4-Dinitrophenylhydrazine TS	100	ml
JPH230	Diphenylamine-acetic acid TS	100	ml
JPH231	Diphenylamine TS	100	ml
JPH232	Diphenylcarbazone TS	100	ml
JPH233	Dipotassium hydrogen phosphate-citric acid buffer solution pH 5.3	100	ml
JPH234	Dipotassium hydrogen phosphate 1 mol/l TS for buffer solution	100	ml
JPH235	Disodium dihydrogen ethylenediamine tetraacetate 0.1 mol/l TS	1000	ml
JPH236	Disodium dihydrogen ethylenediamine tetraacetate 0.04 mol/l TS	1000	ml
JPH237	Disodium dihydrogen ethylenediamine tetraacetate 0.4 mol/l TS pH 8.5	1000	ml
JPH238	Disodium hydrogen phosphate-citric acid buffer solution pH 3.0	100	ml
JPH239	Disodium hydrogen phosphate-citric acid buffer solution pH 4.5	100	ml
JPH240	Disodium hydrogen phosphate-citric acid buffer solution pH 5.4	100	ml
JPH241	Disodium hydrogen phosphate-citric acid buffer solution 0.05 mol/L pH 6.0	100	ml
JPH242	Disodium hydrogen phosphate-citric acid buffer solution pH 6.0	100	ml
JPH243	Disodium hydrogen phosphate-citric acid buffer solution pH 7.2	100	ml
JPH244	Disodium hydrogen phosphate-citric acid buffer solution for penicillium origin b-galactosidase pH 4.5	100	ml
JPH245	Disodium hydrogen phosphate TS	100	ml
JPH246	Disodium hydrogen phosphate 0.05 mol/l TS	1000	ml
JPH247	Disodium hydrogen phosphate 0.5 mol/l TS	1000	ml
JPH248	2,6-Di-tert-butylcresol TS	100	ml
JPH249	Dragendorff's TS (A+B)	100	ml
JPH250	Edetate Disodium TS	1000	ml
JPH251	Eriochrome black T-sodium chloride indicator	100	ml
JPH252	Ethanol aldehyde-free	1000	ml
JPH253	Ethanol dilute	1000	ml
JPH254	Ethylenediamine TS	100	ml
JPH255	Fehling's TS (A+B)	500 +500	ml
JPH256	Fehling's TS for amylolytic activity test (A+B)	500 +500	ml
JPH257	Ferric Ammonium Sulfate TS	100	ml
JPH258	Fluorescein sodium TS	100	ml
JPH259	Folin's TS	100	ml
JPH260	Folin's TS dilute	100	ml
JPH261	Formaldehyde solution TS	100	ml
JPH262	Fuchsin-ethanol TS	100	ml
JPH263	Gelatin-phosphate buffer solution	100	ml
JPH264	Gelatin-phosphate buffer solution pH 7.0	100	ml
JPH265	Gelatin-phosphate buffer solution pH 7.4	100	ml
JPH265a	Gelatin-phosphate buffer solution pH 7.4	1000	ml
JPH266	Gelatin-tris buffer solution	100	ml
JPH267	Gelatin-tris buffer solution pH 8.0	100	ml
JPH268	Griess-Romijn's nitric acid reagent	30	ml
JPH269	Griess-Romijn's nitrous acid reagent	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH270	Hanus' TS	100	ml
JPH271	Hydrochloric acid-ammonium acetate buffer solution pH 3.5	100	ml
JPH272	Hydrochloric acid dilute	100	ml
JPH273	Hydrochloric acid-ethanol (95) TS	100	ml
JPH274	Hydrochloric acid-methanol 0.01 mol/l TS	100	ml
JPH275	Hydrochloric acid-methanol 0.05 mol/l TS	100	ml
JPH276	Hydrochloric acid-2-propanol TS	100	ml
JPH276a	Hydrochloric acid-2-propanol TS	1000	ml
JPH277	Hydrochloric acid-potassium chloride buffer solution pH 2.0	100	ml
JPH278	Hydrochloric acid purified	100	ml
JPH279	Hydrochloric acid TS 0.001 mol/l	1000	ml
JPH280	Hydrochloric acid T0.01 mol/l TS	1000	ml
JPH281	Hydrochloric acid 0.02 mol/l TS	1000	ml
JPH282	Hydrochloric acid 0.05 mol/l TS	1000	ml
JPH283	Hydrochloric acid TS 0.1 mol/l	1000	ml
JPH284	Hydrochloric acid TS 0.2 mol/l	1000	ml
JPH285	Hydrochloric acid TS 0.5 mol/l	1000	ml
JPH286	Hydrochloric acid TS 1 mol/l	1000	ml
JPH287	Hydrochloric acid TS 2 mol/l	1000	ml
JPH288	Hydrochloric acid TS 3 mol/l	1000	ml
JPH289	Hydrochloric acid TS 4 mol/l	1000	ml
JPH290	Hydrochloric acid TS 61 mol/l	1000	ml
JPH291	Hydrochloric acid TS 7.5 mol/l	1000	ml
JPH292	Hydrochloric acid TS 10 mol/l	1000	ml
JPH293	Hydrogen hexachloroplatinate (IV) TS	10	ml
JPH294	Hydrogen sulfide TS	100	ml
JPH295	Hydroxylammonium chloride-iron (III) chloride TS	100	ml
JPH296	Hydroxylammonium chloride TS	100	ml
JPH297	Hydroxylammonium chloride TS pH 3.1	100	ml
JPH298	Hydroxylammonium chloride-ethanol TS	100	ml
JPH299	Imidazole TS	100	ml
JPH300	Indigo carmine TS	100	ml
JPH301	Iodine-starch TS	100	ml
JPH302	Iodine TS	100	ml
JPH303	Iodine TS dilute	100	ml
JPH304	Iodine TS 0.5 mol/l	100	ml
JPH305	Iron (III) chloride-acetic acid TS	100	ml
JPH306	Iron (III) chloride-iodine TS	100	ml
JPH307	Iron (III) chloride-methanol TS	100	ml
JPH308	Iron (III) chloride-pyridine TS anhydrous	100	ml
JPH309	Iron (III) chloride TS	100	ml
JPH310	Iron (III) chloride TS acidic	100	ml
JPH311	Iron (III) nitrate TS	100	ml
JPH312	Iron (III) perchlorate-ethanol TS	100	ml
JPH313	Iron (III) sulfate TS	100	ml
JPH314	Iron (II) tartrate TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH315	Iron (II) thiocyanate TS	100	ml
JPH316	Iron-phenol TS	100	ml
JPH317	Isoniazid TS	100	ml
JPH318	Lactic acid TS	100	ml
JPH319	Lead (II) acetate TS	100	ml
JPH320	Lead subacetate TS	100	ml
JPH321	Magnesia TS	100	ml
JPH322	Magnesium sulfate TS	100	ml
JPH323	Mercury (II) acetate TS for nonaqueous titration	100	ml
JPH324	Mercury (II) chloride TS	100	ml
JPH325	Metanil yellow TS	100	ml
JPH326	Methanesulfonic acid TS	100	ml
JPH327	Methanesulfonic acid TS 0.1 mol/L	100	ml
JPH327a	Methanesulfonic acid TS 0.1 mol/L	500	ml
JPH328	Methanol anhydrous	100	ml
JPH329	Methylene blue-potassium perchlorate TS	100	ml
JPH330	Methylene blue-sulfuric acid-sodium dihydrogenphosphate TS	100	ml
JPH331	Methylene blue TS	100	ml
JPH332	Methyl orange-boric acid TS	100	ml
JPH333	Methyl orange TS	100	ml
JPH334	Methyl orange-xylenecyanol FF TS	100	ml
JPH335	Methyl red-methylene blue TS	100	ml
JPH336	Methyl red TS	100	ml
JPH337	Methyl red TS for acid or alkali test	100	ml
JPH338	Methylthymol blue-potassium nitrate indicator	50	ml
JPH339	Methylthymol blue-sodium chloride indicator	50	ml
JPH340	Methyl yellow TS	100	ml
JPH341	Molybdenum (III) oxide-citric acid TS	100	ml
JPH342	3-(N-Morpholino)propanesulfonic acid buffer solution 0.02 mol/l pH 7.0	100	ml
JPH343	3-(N-Morpholino)propanesulfonic acid buffer solution 0.02 mol/l pH 8.0	100	ml
JPH344	3-(N-Morpholino)propanesulfonic acid buffer solution 0.1 mol/l pH 7.0	100	ml
JPH345	Murexide-sodium chloride indicator	30	ml
JPH346	1,3-Naphthalenediol	30	ml
JPH347	p-Naphtholbenzein TS	100	ml
JPH348	Neutral red TS	100	ml
JPH349	Ninhydrin-acetic acid TS	100	ml
JPH350	Ninhydrin-butanol TS	100	ml
JPH351	Ninhydrin-citric acid-acetic acid TS	100	ml
JPH352	0.2% Ninhydrin-water saturated 1-butanol TS	100	ml
JPH353	Nitric acid dilute	100	ml
JPH354	Nitric acid TS 2 mol/L	100	ml
JPH355	2,2',2''-Nitrilotriethanol buffer solution pH 7.8	1000	ml
JPH356	1-Nitroso-2-naphthol TS	100	ml
JPH357	NN Indicator	50	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH358	Oxalic acid TS	100	ml
JPH359	Palladium (II) chloride TS	100	ml
JPH360	Perchloric acid-ethanol TS	100	ml
JPH361	1,10-Phenanthroline TS	30	ml
JPH362	Phenol-hydrochloric acid TS	30	ml
JPH363	Phenolphthalein-thymol blue TS (A+B)	100+150	ml
JPH364	Phenolphthalein TS	100	ml
JPH365	Phenolphthalein TS alkaline	100	ml
JPH366	Phenol red TS	100	ml
JPH367	Phenol red TS dilute	100	ml
JPH368	Phenylhydrazinium chloride TS	100	ml
JPH369	Phosphate buffer solution for component determination of bupleurum root	100	ml
JPH370	Phosphate buffer solution for pancreatin	100	ml
JPH371	Phosphate buffer solution pH 3.0	100	ml
JPH372	Phosphate buffer solution 0.02 mol/l pH 3.0	100	ml
JPH373	Phosphate buffer solution pH 3.1	100	ml
JPH374	Phosphate buffer solution 0.05 mol/L pH 3.5	100	ml
JPH375	Phosphate buffer solution 0.02 mol/l pH 3.5	100	ml
JPH376	Phosphate buffer solution 0.1 mol/l pH 4.5	100	ml
JPH377	Phosphate buffer solution 0.1 mol/L pH 5.3	100	ml
JPH378	Phosphate buffer solution 1/15 mol/L pH 5.6	100	ml
JPH379	Phosphate buffer solution pH 5.9	100	ml
JPH380	Phosphate buffer solution pH 6.0	100	ml
JPH381	Phosphate buffer solution 0.05 mol/l pH 6.0	100	ml
JPH382	Phosphate buffer solution pH 6.2	100	ml
JPH382a	Phosphate buffer solution pH 6.2	1000	ml
JPH383	Phosphate buffer solution pH 6.5	100	ml
JPH384	Phosphate buffer solution pH 6.8	100	ml
JPH385	Phosphate buffer solution 0.01 mol/L pH 6.8	100	ml
JPH386	Phosphate buffer solution 0.1 mol/L pH 6.8	100	ml
JPH387	Phosphate buffer solution pH 7.0	100	ml
JPH388	Phosphate buffer solution 0.05 mol/L pH 7.0	100	ml
JPH389	Phosphate buffer solution 0.1 mol/L pH 7.0	100	ml
JPH390	Phosphate buffer solution pH 7.2	100	ml
JPH391	Phosphate buffer solution pH 7.4	100	ml
JPH392	Phosphate buffer solution 0.03 mol/L pH 7.5	100	ml
JPH393	Phosphate buffer solution pH 8.0	100	ml
JPH394	Phosphate buffer solution for antibiotics 0.1 mol/L pH 8.0	100	ml
JPH395	Phosphate buffer solution 0.02 mol/l pH 8.0	100	ml
JPH396	Phosphate buffer solution 0.1 mol/l pH 8.0	100	ml
JPH397	Phosphate buffer solution 0.2 mol/l pH 10.5	100	ml
JPH398	Phosphate buffer solution pH 12	100	ml
JPH399	Phosphate buffer solution for antibiotics pH 6.5	100	ml
JPH400	Phosphate buffer solution for processed aconite root	100	ml
JPH401	Phosphate-buffered sodium chloride TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH402	Phosphate buffer-sodium chloride TS 0.01 mol/L pH 7.4	100	ml
JPH403	Phosphate TS	100	ml
JPH404	Phosphoric acid-sodium sulfate buffer solution pH 2.3	100	ml
JPH405	Phosphoric acid-acetic acid-boric acid buffer solution pH 2.0	100	ml
JPH406	Phosphotungstic acid TS	100	ml
JPH407	Potassium acetate TS	100	ml
JPH408	Potassium carbonate-sodium carbonate TS	100	ml
JPH409	Potassium chloride-hydrochloric acid buffer solution	100	ml
JPH410	Potassium chloride TS acidic	100	ml
JPH411	Potassium chromate TS	100	ml
JPH412	Potassium dichromate-sulfuric acid TS	100	ml
JPH413	Potassium dichromate TS	100	ml
JPH414	Potassium dihydrogen phosphate TS 0.02 mol/l	100	ml
JPH415	Potassium dihydrogen phosphate TS 0.05 mol/l	100	ml
JPH416	Potassium dihydrogen phosphate TS 0.1 mol/L pH 2.0	100	ml
JPH417	Potassium dihydrogen phosphate TS 0.25 mol/L pH 3.5	100	ml
JPH418	Potassium dihydrogen phosphate TS 0.33 mol/L	100	ml
JPH419	Potassium dihydrogen phosphate 0.05 mol/l pH 3.0	100	ml
JPH420	Potassium dihydrogen phosphate TS 0.05 mol/l pH 4.7	100	ml
JPH421	Potassium dihydrogen phosphate TS 0.1 mol/l	100	ml
JPH422	Potassium dihydrogen phosphate TS 0.2 mol/l	100	ml
JPH423	Potassium dihydrogen phosphate TS for buffer solution 0.2 mol/l	100	ml
JPH424	Potassium hexacyanoferrate (III) TS alkaline	100	ml
JPH425	Potassium hexahydroxoantimonate (V) TS	100	ml
JPH426	Potassium hydrogen phthalate buffer solution pH 3.5	100	ml
JPH427	Potassium hydrogen phthalate buffer solution pH 4.6	100	ml
JPH428	Potassium hydrogen phthalate buffer solution 0.3 mol/l pH 4.6	100	ml
JPH429	Potassium hydrogen phthalate buffer solution pH 5.6	100	ml
JPH430	Potassium hydrogen phthalate TS for buffer solution 0.2 mol/l	100	ml
JPH431	Potassium hydroxide-ethanol TS dilute	100	ml
JPH432	Potassium hydroxide TS	100	ml
JPH433	Potassium hydroxide TS 8 mol/l	100	ml
JPH434	Potassium iodide-zinc sulfate TS	100	ml
JPH435	Potassium periodate TS	100	ml
JPH436	Potassium permanganate TS	1000	ml
JPH437	Potassium permanganate TS acidic	100	ml
JPH438	Potassium sulfate TS	100	ml
JPH439	Potassium thiocyanate TS	100	ml
JPH440	Purified water for ammonium limit test	1000	ml
JPH441	Pyridine dehydrated	100	ml
JPH442	Pyrophosphate buffer solution pH 9.0	100	ml
JPH443	Pyrophosphate buffer solution 0.05 mol/l pH 9.0	100	ml
JPH444	Quinoline TS	100	ml
JPH445	Selenious acid-sulfuric acid TS	30	ml
JPH446	Silver chromate-saturated potassium chromate TS	100	ml
JPH447	Silver nitrate-ammonia TS	30	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH448	Silver nitrate TS	100	ml
JPH449	Sodium acetate-acetone TS	100	ml
JPH450	Sodium acetate TS	100	ml
JPH451	Sodium carbonate TS	100	ml
JPH452	Sodium carbonate TS 0.55 mol/l	100	ml
JPH453	Sodium chloride TS	100	ml
JPH454	Sodium chloride TS 0.1 mol/l	100	ml
JPH455	Sodium chloride TS 1 mol/L	100	ml
JPH456	Sodium dihydrogen phosphate TS 2 mol/l	100	ml
JPH457	Sodium dihydrogen phosphate TS pH 2.5	100	ml
JPH458	Sodium dihydrogen phosphate TS 0.05 mol/l	100	ml
JPH459	Sodium dihydrogen phosphate TS 0.1 mol/l	100	ml
JPH460	Sodium dihydrogen phosphate TS 0.05 mol/l pH 2.6	100	ml
JPH461	Sodium dihydrogen phosphate TS 0.05 mol/l pH 3.0	100	ml
JPH462	Sodium dihydrogen phosphate TS 0.1 mol/l pH 3.0	100	ml
JPH463	Sodium disulte TS	100	ml
JPH464	Sodium hydrogen carbonate TS	100	ml
JPH465	Sodium hydroxide-dioxane TS	100	ml
JPH466	Sodium hydroxide TS	100	ml
JPH467	Sodium hydroxide TS 0.05 mol/l	100	ml
JPH468	Sodium hydroxide TS 0.5 mol/l	100	ml
JPH469	Sodium hydroxide TS 2 mol/l	100	ml
JPH470	Sodium hydroxide TS 4 mol/l	100	ml
JPH471	Sodium hydroxide TS 6 mol/L	100	ml
JPH472	Sodium hydroxide TS 8 mol/l S	100	ml
JPH473	Sodium lauryl sulfate TS	100	ml
JPH474	Sodium lauryl sulfate TS 0.2 mol/L	100	ml
JPH475	Sodium naphthoquinone sulfonate TS	100	ml
JPH476	Sodium periodate TS	100	ml
JPH477	Sodium phosphate TS	100	ml
JPH478	Sodium phosphate buffer solution 0.1 mol/L pH 7.0	100	ml
JPH479	Sodium salicylate-sodium hydroxide TS	100	ml
JPH480	Sodium sulfide TS	100	ml
JPH481	Sodium sulfite TS 1 mol/l	30	ml
JPH482	Sodium tetraborate-calcium chloride buffer solution pH 8.0	100	ml
JPH483	Sodium thiosulfate TS	100	ml
JPH484	Sulfosalicylic acid TS	100	ml
JPH485	Sulfuric acid dilute	100	ml
JPH486	Sulfuric acid-ethanol TS	100	ml
JPH487	Sulfuric acid-hexane-methanol TS	100	ml
JPH488	Sulfuric acid-methanol TS	100	ml
JPH489	Sulfuric acid-methanol TS 0.05 mol/l	100	ml
JPH490	Sulfuric acid-sodium dihydrogenphosphate TS	100	ml
JPH491	Sulfuric acid-sodium hydroxide TS	100	ml
JPH492	Sulfuric acid TS	100	ml
JPH493	Sulfuric acid TS 0.05 mol/l	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH494	Sulfuric acid TS 0.25 mol/l	1000	ml
JPH495	Sulfuric acid TS 0.5 mol/l	1000	ml
JPH496	Sulfuric acid TS 2 mol/l	1000	ml
JPH497	Tartrate buffer solution pH 3.0	100	ml
JPH498	Tetrabutylammonium hydroxide TS 0.005 mol/l	100	ml
JPH499	Tetrabutylammonium hydroxide-methanol TS	100	ml
JPH500	Tetrabutylammonium hydroxide 10% in methanol TS	100	ml
JPH501	Tetrahydroxyquinone indicator	30	ml
JPH502	Tetramethylammonium hydroxide-methanol TS	1000	ml
JPH503	Tetramethylammonium hydroxide TS	100	ml
JPH504	Tetramethylammonium hydroxide TS pH 5.5	100	ml
JPH505	Tetraphenylboron potassium TS	100	ml
JPH506	Thiourea TS	100	ml
JPH507	Thymol blue-N,N-dimethylformamide TS	100	ml
JPH508	Thymol blue TS	100	ml
JPH509	Thymolphthalein TS	100	ml
JPH510	Tin (II) chloride-sulfuric acid TS	100	ml
JPH511	Tin (II) chloride TS acidic	100	ml
JPH512	Titanium (III) chloride-sulfuric acid TS	100	ml
JPH513	Titanium (IV) oxide TS	100	ml
JPH514	Trichloroacetic acid-gelatin-tris buffer solution	100	ml
JPH515	Trichloroacetic acid TS	100	ml
JPH516	Trichloroacetic acid TS for serrapeptase	100	ml
JPH517	Triethylamine buffer solution pH 3.2	100	ml
JPH518	Triethylamine-phosphate buffer solution pH 5.0	100	ml
JPH519	Trifluoroacetic acid TS	100	ml
JPH520	2,4,6-Trinitrophenol-ethanol TS	100	ml
JPH521	2,4,6-Trinitrophenol TS	100	ml
JPH522	Tris-acetic acid buffer solution pH 6.5	100	ml
JPH523	Tris buffer solution 0.5 mol/L pH 6.8	100	ml
JPH524	Tris buffer solution pH 7.0	100	ml
JPH525	Tris buffer solution 0.05 mol/l pH 7.0	100	ml
JPH526	Tris buffer solution 0.1 mol/l pH 8.0	100	ml
JPH527	Tris buffer solution pH 8.2	100	ml
JPH528	Tris buffer solution pH 8.4	100	ml
JPH529	Tris buffer solution 0.05 mol/L pH 8.6	100	ml
JPH530	Tris buffer solution pH 8.8	100	ml
JPH531	Tris buffer solution pH 9.5	100	ml
JPH532	Tris-hydrochloride buffer solution 0.2 mol/L pH 7.4	100	ml
JPH533	Tris-hydrochloride buffer solution 0.05 mol/L pH 7.5	100	ml
JPH534	Uranyl acetate TS	30	ml
JPH535	Uranyl acetate-zinc TS	100	ml
JPH536	Vanillin-sulfuric acid-ethanol TS	100	ml
JPH537	Zinc acetate buffer solution 0.25 mol/L pH 6.4	100	ml
JPH538	Zinc chloride TS	100	ml
JPH539	Zinc chloride TS 0.04 mol/L	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
JPH540	Zinc iodide-starch TS	100	ml
JPH541	Zinc sulfate TS	100	ml
JPH542	Zirconyl-alizarin red S TS	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
IP001	Boric Acid and Potassium Chloride 0.2M	100	ml
IP002	Disodium Hydrogen Phosphate 0.2M	100	ml
IP003	Hydrochloric Acid 0.2M	100	ml
IP004	Potassium Chloride 0.2M	100	ml
IP005	Potassium Dihydrogen Phosphate 0.2M	100	ml
IP006	Potassium Hydrogen Phthalate 0.2M	100	ml
IP007	Acetate Buffer pH 2.8	100	ml
IP008	Acetate Buffer pH 3.4	100	ml
IP009	Acetate Buffer pH 3.5	100	ml
IP010	Acetate Buffer pH 3.7	100	ml
IP011	Acetate Buffer pH 4.0	100	ml
IP012	Acetate Buffer pH 4.4	100	ml
IP013	Acetate Buffer pH 4.6	100	ml
IP014	Acetate Buffer pH 4.7	100	ml
IP015	Acetate Buffer pH 5.0	100	ml
IP016	Acetate Buffer pH 5.5	100	ml
IP017	Acetate Buffer pH 6.0	100	ml
IP018	Acetate Buffer Solution	100	ml
IP019	Acetic Acid-Ammonium Acetate Buffer	100	ml
IP020	Acetic Ammonia Buffer Ethanolic pH 3.7	100	ml
IP021	Acetone Solution, Buffered	100	ml
IP022	Ammonia - Ammonium Chloride Buffer	100	ml
IP023	Ammonia Buffer pH 9.5	100	ml
IP024	Ammonia Buffer pH 10.0	100	ml
IP025	Barbitone Buffer pH 7.4	100	ml
IP026	Barbitone Buffer Mixed pH 8.6	100	ml
IP027	Boric Buffer pH 9.0	100	ml
IP028	Buffer Solution pH 2.5	100	ml
IP029	Carbonate Buffer pH 9.7	100	ml
IP030	Chloride Buffer pH 2.0	100	ml
IP031	Citro-phosphate Buffer pH 5.0	100	ml
IP032	Citro-phosphate Buffer pH 6.0	100	ml
IP033	Citro-phosphate Buffer pH 7.0	100	ml
IP034	Citro-phosphate Buffer pH 7.2	100	ml
IP035	Citro-phosphate Buffer pH 7.6	100	ml
IP036	Cupric Sulphate Solution, Buffered pH 4.0	100	ml
IP037	Diethanolamine Buffer pH 10.0	100	ml
IP038	Glycine Buffer pH 11.3	100	ml
IP039	Glycine Buffer Solution	100	ml
IP040	Imidazole Buffer pH 6.5	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP041	Palladium Chloride Solution, Buffered	100	ml
IP042	Phosphate Buffer pH 2.0	100	ml
IP043	Phosphate Buffer pH 2.5	100	ml
IP044	Phosphate Buffer pH 3.6	100	ml
IP045	Phosphate Buffer Mixed pH 4.0	100	ml
IP046	Phosphate Buffer pH 4.9	100	ml
IP047	Phosphate Buffer pH 5.0	100	ml
IP048	Phosphate Buffer Mixed pH 5.5	100	ml
IP049	Phosphate Buffer pH 6.5	100	ml
IP050	Phosphate Buffer Mixed pH 6.8	100	ml
IP051	Phosphate Buffer Mixed pH 7.0	100	ml
IP052	Phosphate Buffer with Azide, Mixed pH 7.0	100	ml
IP053	Phosphate Buffer 0.067M Mixed pH 7.0,	100	ml
IP054	Phosphate Buffer 0.33M Mixed pH 7.5	100	ml
IP055	Phosphate Buffer 0.02M pH 8.0	100	ml
IP056	Phosphate Buffer, 0.025M Standard	100	ml
IP057	Saline, Phosphate-buffered	100	ml
IP058	Saline, Phosphate-buffered pH 6.4	100	ml
IP059	Saline, Phosphate-buffered pH 7.4	100	ml

General reagents

Ref. Number	Description	Volume (other volumes also possible)	msr
IP061	Acetic Acid, Dilute	100	ml
IP062	Acetic Acid Sp. ,Dilute	100	ml
IP063	Acetic Anhydride-Dioxan Solution	50	ml
IP064	Aluminium Chloride Solution	100	ml
IP065	Aminohydroxynaphthalenesulphonic Acid Solution	100	ml
IP067	Ammonia-Ammonium Chloride Solution, Strong	100	ml
IP068	Ammonia-Cyanide Solution Sp	100	ml
IP069	Ammonia–Cyanide Wash Solution	100	ml
IP072	Ammonia Solution, Dilute	1000	ml
IP073	Ammonia, 18M	1000	ml
IP074	Ammonia Solution Sp., Dilute	100	ml
IP075	Ammonia Solution, Iron-free	100	ml
IP076	Ammonium Acetate, 0.1M	1000	ml
IP077	Ammonium Carbonate, 2M	1000	ml
IP078	Ammonium Carbonate Solution	100	ml
IP079	Ammonium Chloride, 2M	1000	ml
IP080	Ammonium Chloride – Ammonium Hydroxide Solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP081	Ammonium Chloride Solution	100	ml
IP082	Ammonium Chloride Solution (Nessler's)	1000	ml
IP083	Ammonium Citrate Solution	1000	ml
IP084	Ammonium Citrate Solution, Alkaline	100	ml
IP085	Ammonium Citrate Solution Sp	100	ml
IP086	Ammonium Mercurithiocyanate Solution	100	ml
IP087	Ammonium Molybdate Solution	100	ml
IP088	Ammonium Molybdate Solution, Ethanolic (A+B)	50+200	ml
IP089	Ammonium Molybdate – Sulphuric Acid Solution	100	ml
IP090	Ammonium Nitrate, 0.007M	1000	ml
IP091	Ammonium Oxalate, 0.1M	1000	ml
IP092	Ammonium Oxalate Solution	100	ml
IP093	Ammonium Phosphate, Dibasic, 0.2M	1000	ml
IP095	Ammonium Thiocyanate Solution	100	ml
IP096	Ammonium Thioglycollate Solution	100	ml
IP097	Anisaldehyde Solution	100	ml
IP098	Anisaldehyde Solution, Ethanolic	100	ml
IP099	Antimony Trichloride Reagent (Solution I)	100	ml
IP100	Antimony Trichloride Solution	100	ml
IP101	Barium Chloride Solution	100	ml
IP102	Barium Hydroxide, 0.1M	1000	ml
IP103	Barium Hydroxide Solution	1000	ml
IP104	Blue Tetrazolium Solution	100	ml
IP105	Borax, 0.2 M	1000	ml
IP106	Boric Acid Solution	250	ml
IP107	Bromine, 0.0167M	1000	ml
IP108	Bromine Solution	100	ml
IP109	Bromine Solution, Acetic	1000	ml
IP110	Bromine Water	100	ml
IP111	Cadmium Iodide Solution	100	ml
IP113	Calcium Chloride Solution	100	ml
IP114	Cerous Nitrate Solution	1000	ml
IP115	Chloral Hydrate Solution	100	ml
IP116	Chloroform Water	1000	ml
IP117	Chromic Acid Solution	1000	ml
IP118	Chromotropic Acid Solution	100	ml
IP119	Citric Acid, 0.1M	1000	ml
IP120	Citric-Molybdic Acid Solution	1000	ml
IP121	Cobalt Chloride Solution	100	ml
IP122	Cobalt Thiocyanate Solution	100	ml
IP123	Copper Solution, Alkaline (Solution I)	1000	ml
IP124	Copper Solution, Alkaline (Solution II)	100	ml
IP125	Cupric Chloride-Pyridine Reagent	100	ml
IP126	Cupri-Citric Solution	100	ml
IP127	Cupric Sulphate 0.02M	1000	ml
IP128	Cupric Sulphate Solution	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP129	Cupric Sulphate Solution, Weak	1000	ml
IP130	Cupri-Tartaric Solution (I+II)	500+500	ml
IP131	Diazobenzenesulphonic Acid Solution	100	ml
IP132	Dichloroacetic Acid Solution	500	ml
IP133	Digoxin Reagent	100	ml
IP134	Dimethylaminobenzaldehyde Solution, Ethanolic	250	ml
IP135	Dimethylformamide Solution (5% v/v)	100	ml
IP136	N,N-Dimethyl-p-phenylenediamine Sulphate Solution	100	ml
IP137	Dinitrobenzene Solution	100	ml
IP138	Dinitrobenzoic Acid Solution	100	ml
IP139	Diphenylamine Solution	100	ml
IP140	Diphenylcarbazone Mercuric Reagent (I+II)	100+100	ml
IP141	Dipotassium Hydrogen Phosphate, 0.1M	1000	ml
IP144	Disodium Hydrogen Phosphate Solution	100	ml
IP145	Ethanol 90% (v/v)	1000	ml
IP146	Ethanol 80% (v/v)	1000	ml
IP147	Ethanol 75% (v/v)	1000	ml
IP148	Ethanol 70% (v/v)	1000	ml
IP149	Ethanol 60% (v/v)	1000	ml
IP150	Ethanol 50% (v/v)	1000	ml
IP151	Ethanol 40% (v/v)	1000	ml
IP152	Ethanol 25% (v/v)	1000	ml
IP153	Ethanol 20% (v/v)	1000	ml
IP154	Ethanol, aldehyde-free	1000	ml
IP155	Ferric Ammonium Sulphate Solution	100	ml
IP156	Ferric Ammonium Sulphate Solution, Acid	100	ml
IP157	Ferric Chloride-Ferricyanide-Arsenite Solution (I+II+III)	500+500+100	ml
IP158	Ferric Chloride Solution	100	ml
IP159	Ferric Chloride Test Solution	100	ml
IP160	Formic Acid, 15M	100	ml
IP161	Hydrazine-molybdate Reagent	100	ml
IP162	Hydrazine Reducing Mixture	30	ml
IP164	Hydrochloric Acid, Dilute	1000	ml
IP166	Hydrochloric Acid AsT, Stannated	100	ml
IP167	Hydroxylamine Hydrochloride Reagent	1000	ml
IP168	Hydroxylamine Hydrochloride Solution	100	ml
IP169	Hydroxylamine Hydrochloride Solution Sp	100	ml
IP170	Hydroxylamine Solution, Ethanolic(90%)	100	ml
IP171	Hypophosphorus Reagent	100	ml
IP172	Imidazole-Mercury Reagent	100	ml
IP173	Imidazole Solution	100	ml
IP174	Indigo Carmine Solution	100	ml
IP176	Iodine bromide solution	1000	ml
IP177	Iodine Solution	100	ml
IP178	Lanthanum Nitrate Solution	100	ml
IP179	Lead Acetate Cotton	10	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP180	Lead Acetate Solution	1000	ml
IP181	Lead Nitrate Solution	1000	ml
IP182	Lead Nitrate Stock Solution	1000	ml
IP183	Lead Subacetate Solution	100	ml
IP184	Lithium Perchlorate, 0.1M	1000	ml
IP185	Magenta Solution, Decolorised	100	ml
IP186	Magnesium Sulphate Solution, Ammoniacal	100	ml
IP187	Mercuric Acetate Solution	100	ml
IP188	Mercuric Bromide Solution, Ethanolic	100	ml
IP189	Mercuric Chloride, 0.2M	1000	ml
IP190	Mercuric Chloride Solution	100	ml
IP191	Mercuric Sulphate Solution	100	ml
IP192	Methanesulphonic Acid, 2M Methanolic	1000	ml
IP193	Methanol, Aldehyde-free	1000	ml
IP194	Naphthalenediol Reagent Solution	100	ml
IP195	Ninhydrin Solution	100	ml
IP196	Ninhydrin Solution, Ethanolic	100	ml
IP198	Nitric Acid, Dilute	100	ml
IP199	4-Nitrobenzyl Chloride Solution	100	ml
IP200	Pararosaniline Solution, Decolorised	100	ml
IP202	Periodic-Acetic Acids Solution	100	ml
IP203	Phenanthroline Solution	100	ml
IP204	Phenol Reagent	100	ml
IP205	Phosphomolybdic Acid Reagent	100	ml
IP207	Phosphoric Acid, Dilute	100	ml
IP208	Phosphotungstic Acid Solution	100	ml
IP209	Picric Acid Solution	100	ml
IP210	Potassium Bromate, 0.0167M	1000	ml
IP211	Potassium Bromate, 0.0333M	1000	ml
IP212	Potassium Bromide, 0.001M	1000	ml
IP213	Potassium Carbonate, 2M	1000	ml
IP214	Potassium Chromate Solution	100	ml
IP215	Potassium Cupri-Tartrate Solution	500+500	ml
IP216	Potassium Cyanide Solution	100	ml
IP217	Potassium Cyanide Solution Sp	100	ml
IP218	Potassium Dichromate Solution	1000	ml
IP219	Potassium Dichromate Solution, Dilute	1000	ml
IP220	Potassium Dichromate Solution UV(2x10 ml Potassium Dichromate Solution for Absorbance Control at 430 nm and 6x10 ml blank)	80	ml
IP222	Potassium Ferrocyanide Solution	100	ml
IP225	Potassium Hydroxide Solution	100	ml
IP227	Potassium Iodate Solution	100	ml
IP228	Potassium Iodide, 1M	100	ml
IP229	Potassium Iodide Solution	100	ml
IP230	Potassium Iodide Solution, Dilute	100	ml
IP231	Potassium Iodide Solution, Iodinated	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP232	Potassium Iodobismuthate Solution	500	ml
IP233	Potassium Iodobismuthate Solution, Acetic	100	ml
IP234	Potassium Iodobismuthate Solution, Dilute	500	ml
IP235	Potassium Iodoplatinate solution	10	ml
IP236	Potassium Mercuri-Iodide Solution	100	ml
IP237	Potassium Mercuri-Iodide Solution, Alkaline	500	ml
IP239	Potassium Permanganate-Phosphoric Acid Solution	100	ml
IP240	Potassium Permanganate Solution	100	ml
IP241	Potassium Permanganate Solution, Dilute	100	ml
IP242	Potassium Thiocyanate Solution	100	ml
IP243	Pyridine, Anhydrous	100	ml
IP244	Quinoline Solution	100	ml
IP245	Semicarbazide Acetate Solution	100	ml
IP247	Silver Nitrate Solution	100	ml
IP248	Silver Nitrate-Pyridine Reagent	100	ml
IP249	Sodium Arsenite, 0.1M	1000	ml
IP250	Sodium Arsenite Solution	100	ml
IP252	Sodium Bicarbonate Solution	1000	ml
IP255	Sodium Carbonate Solution	100	ml
IP256	Sodium Carbonate Solution, Dilute	100	ml
IP257	Sodium Cobaltinitrite Solution	100	ml
IP258	Sodium 1 Decasulphonate Solution	100	ml
IP260	Sodium Heptanesulphonate	100	ml
IP261	Sodium Hexanesulphonate, 0.03M	1000	ml
IP264	Sodium Hydroxide Solution	100	ml
IP265	Sodium Hydroxide Solution, Dilute	100	ml
IP266	Sodium Hypobromite Solution, Alkaline	100	ml
IP268	Sodium Molybdotungstophosphate solution	100	ml
IP269	Sodium Nitroprusside Carbonate Solution	100	ml
IP270	Sodium Octanesulphonate, 0.02M	1000	ml
IP271	Sodium Phosphate Solution	100	ml
IP272	Sodium Sulphide Solution	100	ml
IP274	Stannous Chloride Solution	100	ml
IP275	Stannous Chloride Solution AsT	100	ml
IP276	Startch Iodide Solution	100	ml
IP277	Starch Solution	100	ml
IP279	Sulphomolybdic Acid Solution	100	ml
IP282	Sulphuric Acid, Dilute	100	ml
IP285	Sulphuric Acid-Formaldehyde Reagent	100	ml
IP288	Thiocetamide Solution	1000	ml
IP289	Trichloroacetic Acid Solution	100	ml
IP290	Wash Solution pH 2.5	500	ml
IP291	Water, Ammonia-free	1000	ml
IP292	Water, Carbon Dioxide-free	1000	ml
IP293	Zinc and Sodium Carbonate Reagent	30	ml
IP294	Zinc Chloride-Formic Acid solution	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP295	Zinc Chloride Solution, Iodinated	100	ml
IP297	Zinc Sulphate Solution	100	ml
IP298	Zirconyl Nitrate Solution	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
IP299	Alizarin Red S Solution	100	ml
IP300	Brilliant Green Solution	100	ml
IP301	Bromocresol Green Solution	100	ml
IP302	Bromocresol Purple Solution	100	ml
IP303	Bromophenol Blue Solution	100	ml
IP304	Bromothymol Blue Solution	100	ml
IP305	Calcon Mixture	100	ml
IP306	Cresol Red Solution	100	ml
IP307	Crystal Violet Solution	100	ml
IP308	Dimethyl Yellow Solution	100	ml
IP309	Eosin Solution	100	ml
IP310	Eriochrome Black T Mixture	100	ml
IP312	Litmus Solution	250	ml
IP313	Metanil Yellow Solution	100	ml
IP314	Methyl Orange Solution	100	ml
IP315	Methyl Red-Methylene Blue Solution	100	ml
IP316	Methyl Red Solution	100	ml
IP317	Methylene Blue Solution	100	ml
IP318	1-Naphtholbenzein Solution	100	ml
IP319	Neutral Red Solution	100	ml
IP320	Nile Blue A Solution	100	ml
IP321	Phenol Red Solution	100	ml
IP322	Phenolphthalein Solution	100	ml
IP323	Phenolphthalein Solution, Dilute	100	ml
IP324	Phenolphthalein-Thymol Blue Solution (A+B)	100+150	ml
IP325	Pyridylazonaphthol Solution	100	ml
IP326	Quinaldine Red Solution	100	ml
IP327	Ruthenium Red Solution	100	ml
IP328	Thymol Blue Solution	100	ml
IP329	Thymol Blue Solution, Ethanolic	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP330	Thymolphthalein Solution	100	ml
IP331	Titan Yellow Solution	100	ml
IP332	Xylenol Orange Mixture	50	ml
IP333	Lead Acetate Paper	1	pack of 50
IP334	Mercuric Chloride Paper	1	pack of 50
IP335	Starch Iodate Paper	1	pack of 50
IP336	Starch Iodide Paper	1	pack of 50
IP337	Titan Yellow Paper	1	pack of 50
IP337	Titan Yellow Paper	1	pack of 50

Standard solutions

Ref. Number	Description	Volume (other volumes also possible)	msr
IP338	Acetaldehyde Standard Solution (100 ppm C ₂ H ₄ O)	100	ml
IP339	Aluminium Standard Solution concentrate (0.176% w/v aluminium potassium sulphate)	100	ml
IP340	Aluminium Standard Solution concentrate (1.39% w/v aluminium nitrate)	100	ml
IP341	Arsenic Standard Solution concentrate (1000 ppm As)	100	ml
IP342	Barium Standard Solution concentrate (0.178% w/v barium chloride)	100	ml
IP343	Cadmium Standard Solution concentrate (0.228% w/v cadmium sulphate)	100	ml
IP344	Calcium Standard Solution concentrate (1000 ppm Ca)	100	ml
IP345	Calcium Standard Solution concentrate Ethanolic (1000 ppm Ca)	100	ml
IP346	Chloride Standard Solution concentrate (0.0824% w/v sodium chloride)	100	ml
IP347	Copper Standard Solution concentrate (1.965 g/l cupric sulphate)	100	ml
IP348	Copper Standard Solution concentrate (0.393% w/v cupric sulphate)	100	ml
IP349	Formaldehyde Standard Solution concentrate (3.0 g/l formaldehyde)	100	ml
IP350	Iron Standard Solution concentrate (0.1726% w/v ferric ammonium sulphate)	100	ml
IP351	Iron Standard Solution concentrate (7.022 g/l ferrous ammonium sulphate)	100	ml
IP352	Lead Standard Solution (0.1% Pb)	100	ml
IP353	Nickel Standard Solution concentrate (1000 ppm Ni)	100	ml
IP354	Nitrate Standard Solution concentrate (0.163% w/v potassium nitrate)	100	ml
IP355	Phosphate Standard Solution concentrate (0.143% w/v potassium dihydrogen phosphate)	100	ml
IP356	Silver Standard Solution concentrate (0.079% w/v silver nitrate)	100	ml
IP357	Sulphate Standard Solution concentrate (0.181% w/v potassium sulphate)	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP358	Sulphate Standard Solution concentrate Ethanolic (0.181% w/v solution of potassium sulphate in ethanol (30%))	100	ml
IP359	Tin Standard Solution concentrate (0.500 g/l Tin)	100	ml
IP360	Zinc Standard Solution (100 ppm Zn)	100	ml
IP361	Ammonium Thiocyanate 0.1M	1000	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
IP362	Barium Chloride 0.05M	1000	ml
IP363	Benzethonium Chloride 0.004M	1000	ml
IP364	Bromine 0.05M	1000	ml
IP365	Ceric Ammonium Nitrate 0.1M	1000	ml
IP366	Ceric Ammonium Sulphate 0.1M	1000	ml
IP367	Cupric Sulphate 0.02M	1000	ml
IP368	Dioctyl Sodium Sulphosuccinate 0.0005M	100	ml
IP369	Disodium Edetate 0.1M	1000	ml
IP370	Ferric Ammonium Sulphate 0.1M	1000	ml
IP371	Ferrous Ammonium Sulphate 0.1M	1000	ml
IP372	Hydrochloric Acid 1M	1000	ml
IP373	Hydrochloric Acid Methanolic 0.05M	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
IP374	Iodine 0.05M	1000	ml
IP375	Lead Nitrate 0.1M	1000	ml
IP376	Magnesium Sulphate 0.05M	1000	ml
IP377	Mercuric Nitrate 0.02M	1000	ml
IP378	Nitric Acid 1M	1000	ml
IP379	Perchloric Acid 0.1M	1000	ml
IP380	Potassium Dichromate 0.0167M	1000	ml
IP381	Potassium Hydrogen Phthalate 0.05M	1000	ml
IP382	Potassium Hydroxide 0.1M	1000	ml
IP383	Potassium Hydroxide Ethanolic 0.1M	1000	ml
IP384	Potassium Hydroxide in ethanol (60%) 0.5M	1000	ml
IP385	Potassium Iodate 0.05M	1000	ml
IP386	Potassium Permanganate 0.02M	1000	ml
IP387	Silver Nitrate 0.1M	1000	ml
IP388	Sodium Hydroxide 1M	1000	ml
IP389	Sodium Hydroxide Ethanolic 0.1M	1000	ml
IP390	Sodium Methoxide 0.1M	1000	ml
IP391	Sodium Nitrite 0.1M	1000	ml
IP392	Sodium Thiosulphate 0.1M	1000	ml
IP393	Sulphuric Acid 0.5M	1000	ml
IP394	Sulphuric Acid Ethanolic 0.25M	1000	ml
IP395	Tetrabutylammonium Hydroxide 0.1M	100	ml
IP396	Zinc Chloride 0.1M	1000	ml
IP397	Zinc Sulphate 0.1M	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.

Ref. Number	Description	Volume (other volumes also possible)	msr
IP398	Benzoic Acid	100	g
IP399	Potassium Bromate	50	g
IP400	Potassium Dichromate	50	g
IP401	Potassium Hydrogen Phthalate	50	g
IP402	Potassium Iodate	50	g
IP403	Sodium Carbonate, Anhydrous	50	g
IP404	Sodium Chloride	250	g
IP405	Sulphanilic Acid	100	g
IP406	Zinc, Granulated	100	g

International Pharmacopoeia products

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 International System of Units (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.

Ref. Number	Description	Volume (other volumes also possible)	msr
INP001	Acetate buffer TS pH 3.0	100	ml
INP002	Acetate buffer TS pH 4.5	100	ml
INP003	Acetate buffer TS pH 4.6	100	ml
INP004	Acetate buffer TS pH 4.7	100	ml
INP005	Acetate buffer TS pH 5.0	100	ml
INP006	Acetate buffer TS pH 5.5	100	ml
INP007	Acetate buffer TS pH 6.0	100	ml
INP008	Acetate standard buffer TS	100	ml
INP009	Acetic acid TS ~90 g/l	100	ml
INP010	Acetic acid TS ~120 g/l	100	ml
INP011	Acetic acid TS ~300 g/l	100	ml
INP012	Acetic acid TS ~60 g/l Pb	100	ml
INP013	Acetic acid TS ~60 g/l	100	ml
INP014	Acetic acid VS 0.07 mol/l	100	ml
INP015	Acetic acid TS 5.0 g/l	100	ml
INP016	Acetic anhydride/dioxan TS	100	ml
INP017	Acetonitrile TS 400 g/l	100	ml
INP018	Aluminium chloride TS	100	ml
INP019	Aluminium standard 10 times concentrated TS 2 ppm Al	100	ml
INP020	Aluminium standard (10 µg/ml Al) TS	100	ml
INP021	4-Aminoantipyrine TS1	30	ml
INP022	Ammonia TS ~100 g/l Fe	100	ml
INP023	Ammonia TS ~100 g/l Pb	100	ml
INP024	Ammonia TS ~100 g/l	100	ml
INP025	Ammonia TS ~17 g/l	1000	ml
INP026	Ammonia TS ~35 g/l	1000	ml
INP027	Ammonia TS ~50 g/l	1000	ml
INP028	Ammonia buffer TS	1000	ml
INP029	Ammonia buffer TS2	1000	ml
INP030	Ammonium acetate TS 100 g/l	100	ml
INP031	Ammonium acetate TS 50 g/l	1000	ml
INP032	Ammonium acetate TS 80 g/l	1000	ml
INP033	Ammonium acetate buffer TS pH 4.62	1000	ml
INP034	Ammonium chloride 10 times concentrated TS 10 µg/ml NH4	100	ml
INP035	Ammonium chloride TS 100 g/l	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP036	Ammonium chloride TS 20g/l	1000	ml
INP037	Ammonium chloride buffer TS pH 10.0	100	ml
INP038	Ammonium chloride buffer TS pH 10.5	100	ml
INP039	Ammonium chloride TS (Nessler's reagent)	1000	ml
INP040	Ammonium chloride dilute TS	1000	ml
INP041	Ammonium mercurithiocyanate TS	100	ml
INP042	Ammonium molybdate TS 45 g/l	100	ml
INP043	Ammonium molybdate TS 95 g/l	100	ml
INP044	Ammonium molybdate/nitric acid TS	100	ml
INP045	Ammonium molybdate/sulfuric acid TS	30	ml
INP046	Ammonium molybdate/vanadate TS	100	ml
INP047	Ammonium nitrate TS 50 g/l	100	ml
INP048	Ammonium nitrate TS	100	ml
INP049	Ammonium oxalate TS 25 g/l	100	ml
INP050	Ammonium oxalate TS 50 g/l	100	ml
INP051	Ammonium persulfate/phosphate buffer TS	100	ml
INP052	Ammonium reineckate TS 10 g/l	100	ml
INP053	Ammonium sulfamate TS 25 g/l	100	ml
INP054	Ammonium sulfamate TS 5 g/l	100	ml
INP055	Ammonium sulfamate TS 50 g/l	100	ml
INP056	Ammonium sulfide TS	100	ml
INP057	Ammonium thiocyanate VS 0.01 mol/l	1000	ml
INP058	Ammonium thiocyanate VS 0.05 mol/l	1000	ml
INP059	Ammonium thiocyanate VS 0.1 mol/l	1000	ml
INP060	Ammonium thiocyanate TS 10 g/l	100	ml
INP061	Ammonium thiocyanate TS 75 g/l	100	ml
INP062	Ammonium thiocyanate/cobalt (II) nitrate TS	100	ml
INP063	Aniline TS 25 g/l	100	ml
INP064	Anisaldehyde TS	100	ml
INP065	Anisaldehyde/sulfuric acid TS	30	ml
INP066	Antimony trichloride TS	100	ml
INP067	Arsenic strong As TS	100	ml
INP068	Azo violet TS	100	ml
INP069	Barium chloride VS 0.1 mol/l	1000	ml
INP070	Barium chloride VS 0.5 mol/l	1000	ml
INP071	Barium chloride TS 50 g/l	1000	ml
INP072	Barium hydroxide VS 0.15 mol/l	1000	ml
INP073	Barium nitrate VS 0.01 mol/l	1000	ml
INP074	Benzalkonium chloride TS1	100	ml
INP075	Blue tetrazolium/ethanol TS	100	ml
INP076	Borate buffer TS pH 8.0	200	ml
INP077	Borate buffer TS pH 9.0	200	ml
INP078	Borate buffer TS pH 9.6	200	ml
INP079	Boric acid (50 g/l) TS	100	ml
INP080	Brilliant green/acetic acid TS	100	ml
INP081	Bromine As TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP082	Bromocresol green TS1	100	ml
INP083	Bromocresol green/ethanol TS	100	ml
INP084	Bromocresol purple/ethanol TS	100	ml
INP085	Bromophenol blue TS 1 g/l	100	ml
INP086	Bromophenol blue TS	100	ml
INP087	Bromophenol blue/ethanol TS	250	ml
INP088	Bromothymol blue/dimethylformamide TS	100	ml
INP089	Bromothymol blue/ethanol TS	100	ml
INP090	Brown stock standard TS	100	ml
INP091	Calcium acetate VS 0.25 mol/l	1000	ml
INP092	Calcium chloride TS 3.7 g/l	1000	ml
INP093	Calcium chloride TS 55 g/l	1000	ml
INP094	Calcium standard TS 10 µg/ml Ca	100	ml
INP095	Calcium standard ethanolic TS 100 µg/ml Ca	100	ml
INP096	Calcium sulfate TS	100	ml
INP097	Calcon indicator mixture R	100	ml
INP098	Ceric ammonium nitrate VS 0.01 mol/l	1000	ml
INP099	Ceric ammonium sulfate VS 0.1 mol/l	1000	ml
INP100	Ceric ammonium sulfate/nitric acid TS	100	ml
INP101	Ceric sulfate VS 0.1 mol/l	1000	ml
INP102	Ceric sulfate TS 35 g/l	1000	ml
INP103	Chloride standard TS 5 g/l	100	ml
INP104	Citrate buffer TS pH 4.0	250	ml
INP105	Citrate buffer TS pH 5.4	100	ml
INP106	Citric acid TS 180 g/l Fe	1000	ml
INP107	Citric acid TS 20 g/l	1000	ml
INP108	Cobalt colour TS	100	ml
INP109	Cobalt colour strong TS	100	ml
INP110	Cobalt(II) chloride TS 30 g/l	100	ml
INP111	Cobalt(II) chloride TS 5 g/l	100	ml
INP112	Cobalt(II) chloride TS	100	ml
INP113	Cobalt(II) nitrate TS 10 g/l	100	ml
INP114	Cobalt(II) nitrate TS 100 g/l	100	ml
INP115	Cobaltous chloride TS	100	ml
INP116	Colbatus thiocyanate TS	100	ml
INP117	Copper colour TS	100	ml
INP118	Copper colour strong TS	100	ml
INP119	Copper edetate TS	50	ml
INP120	Copper standard TS 10 µg/ml Cu	1000	ml
INP121	Copper standard TS 5 µg/ml Cu	100	ml
INP122	Copper standard TS1	1000	ml
INP123	Copper standard TS2	100	ml
INP124	Copper tetramine hydroxide TS	100	ml
INP125	Copper(II) acetate TS 45 g/l	100	ml
INP126	Copper(II) chloride/ammonia TS	100	ml
INP127	Copper(II) sulfate TS 1 g/l	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP128	Copper(II) sulfate TS 160 g/l	100	ml
INP129	Copper(II) sulfate TS 80 g/l	100	ml
INP130	Copper(II) sulfate/ammonia TS	100	ml
INP131	Cresol red/ethanol TS	100	ml
INP132	Crystal violet/acetic acid TS	100	ml
INP133	Diammonium hydrogen phosphate (100 g/l) TS	100	ml
INP134	Dichlorofluorescein TS	100	ml
INP135	2,6-Dichloroquinone chlorimide/ethanol TS	100	ml
INP136	Dichromate colour TS	100	ml
INP137	Dichromate colour strong TS	100	ml
INP138	Diethylphenylenediamine sulfate TS	100	ml
INP139	Dimethylamine/ethanol TS	100	ml
INP140	4-Dimethylaminobenzaldehyde TS2	100	ml
INP141	4-Dimethylaminobenzaldehyde TS3	100	ml
INP142	4-Dimethylaminobenzaldehyde TS4	100	ml
INP143	4-Dimethylaminobenzaldehyde TS5	100	ml
INP144	Dinitrobenzene/ethanol TS	100	ml
INP145	Diphenylamine/sulfuric acid TS	100	ml
INP146	Diphenylcarbazide TS	100	ml
INP147	Diphenylcarbazone/ethanol TS	100	ml
INP148	Disodium chromotropate TS 10 g/l	100	ml
INP149	Disodium chromotropate TS	30	ml
INP150	Disodium edetate VS 0.01 mol/l	1000	ml
INP151	Disodium edetate VS 0.05 mol/l	1000	ml
INP152	Disodium edetate VS 0.1 mol/l	1000	ml
INP153	Disodium edetate TS 10 g/l	1000	ml
INP154	Disodium edetate TS 20 g/l	1000	ml
INP155	Disodium edetate TS 50 g/l	1000	ml
INP156	Disodium hydrogen phosphate TS 100 g/l	100	ml
INP157	Disodium hydrogen phosphate TS 28.4 g/l	100	ml
INP158	Disodium hydrogen phosphate TS 40 g/l	100	ml
INP159	Domiphen bromide TS 10 g/l	100	ml
INP160	Dragendorff reagent TS (A+B)	100	ml
INP161	Eosin Y TS 5 g/l	100	ml
INP162	Ethanol TS ~150 g/l	1000	ml
INP163	Ethanol TS ~375 g/l	1000	ml
INP164	Ethanol TS ~457 g/l	1000	ml
INP165	Ethanol TS ~535 g/l	1000	ml
INP166	Ethanol TS ~600 g/l	1000	ml
INP167	Ethanol TS ~675 g/l	1000	ml
INP168	Ethanol TS ~710 g/l	1000	ml
INP169	Ethylene oxide stock solution R	10x10	ml
INP170	Ferric ammonium sulfate VS 0.1 mol/l	1000	ml
INP171	Ferric ammonium sulfate TS 45 g/l	1000	ml
INP172	Ferric ammonium sulfate TS1	100	ml
INP173	Ferric ammonium sulfate TS2	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP174	Ferric chloride TS 25 g/l	100	ml
INP175	Ferric chloride TS 50 g/l	100	ml
INP176	Ferric chloride TS 65 g/l	100	ml
INP177	Ferric chloride/ferricyanide/arsenite TS (A+C)	100	ml
INP178	Ferroun TS	100	ml
INP179	Ferrous ammonium sulfate VS 0.1 mol/l	1000	ml
INP180	Ferrous ammonium sulfate TS 1 g/l	100	ml
INP181	Fuchsin TS	100	ml
INP182	Fuchsin TS decolorized	100	ml
INP183	Glyoxal bis(2-hydroxyanil) TS	100	ml
INP184	Green stock standard TS	100	ml
INP185	Holmium perchlorate TS	100	ml
INP186	Hydrochloric acid TS ~4 g/l	1000	ml
INP187	Hydrochloric acid stannated AsTs ~250 g/l	100	ml
INP188	Hydrochloric acid TS ~70 g/l	1000	ml
INP189	Hydrochloric acid VS 0.0001 mol/l	1000	ml
INP190	Hydrochloric acid VS 0.001 mol/l	1000	ml
INP191	Hydrochloric acid VS 0.005 mol/l	1000	ml
INP192	Hydrochloric acid VS 0.01 mol/l	1000	ml
INP193	Hydrochloric acid VS 0.015 mol/l	1000	ml
INP194	Hydrochloric acid VS 0.02 mol/l	1000	ml
INP195	Hydrochloric acid VS 0.05 mol/l	1000	ml
INP196	Hydrochloric acid VS 0.1 mol/l	1000	ml
INP197	Hydrochloric acid VS 0.2 mol/l	1000	ml
INP198	Hydrochloric acid VS 0.5 mol/l	1000	ml
INP199	Hydrochloric acid VS 1 mol/l	1000	ml
INP200	Hydrochloric acid VS 2 mol/l	1000	ml
INP201	Hydrochloric acid VS 5 mol/l	1000	ml
INP202	Hydrochloric acid TS ~250 g/l	1000	ml
INP203	Hydrochloric acid Cl TS	100	ml
INP204	Hydrochloric acid/ethanol VS 1 mol/l	100	ml
INP205	Hydrochloric acid/ethanol VS 0.1 mol/l	100	ml
INP206	Hydrochloric acid/methanol VS 0.01 mol/l	100	ml
INP207	Hydroxylamine hydrochloride TS 200 g/l	100	ml
INP208	Hydroxylamine hydrochloride TS 70 g/l	100	ml
INP209	Hydroxylamine hydrochloride TS	100	ml
INP210	Hydroxylamine hydrochloride TS2	100	ml
INP211	Imidazole/mercuric chloride TS	100	ml
INP212	Iodide standard TS 20 µg/ml	100	ml
INP213	Iodine VS 0.0001 mol/l	1000	ml
INP214	Iodine VS 0.0005 mol/l	1000	ml
INP215	Iodine VS 0.005 mol/l	1000	ml
INP216	Iodine VS 0.01 mol/l	1000	ml
INP217	Iodine VS 0.02 mol/l	1000	ml
INP218	Iodine VS 0.05 mol/l	1000	ml
INP219	Iodine VS 0.1 mol/l	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP220	Iodine bromide TS	1000	ml
INP221	Iodine TS	100	ml
INP222	Iodine/chloroform TS	100	ml
INP223	Iodine/ethanol TS	1000	ml
INP224	Iron colour TS	100	ml
INP225	Iron colour strong TS	100	ml
INP226	Iron standard Fe TS	100	ml
INP227	Isoniazid TS	100	ml
INP228	Lanthanum nitrate TS 30 g/l	100	ml
INP229	Lead acetate TS 80 g/l	100	ml
INP230	Lead acetate paper R	1	pack of 50
INP231	Lead nitrate VS 0.05 mol/l	1000	ml
INP232	Lead nitrate VS 0.1 mol/l	1000	ml
INP233	Lead nitrate TS 100 g/l	100	ml
INP234	Lead nitrate paper R	1	pack of 50
INP235	Lead strong TS	100	ml
INP236	Lithium carbonate/trinitrophenol TS	100	ml
INP237	Lithium chloride TS 10 g/l	100	ml
INP238	Lithium methoxide VS 0.1 mol/l	1000	ml
INP239	Lithium perchlorate/acetic acid TS	100	ml
INP240	Magnesium TS 0.1 mg/ml Mg	100	ml
INP241	Magnesium chloride VS 0.1 mol/l	1000	ml
INP242	Magnesium standard TS 10 µg/ml Mg	100	ml
INP243	Magnesium sulfate TS 50 g/l	100	ml
INP244	Magnesium sulfate/sulfuric acid TS	100	ml
INP245	Manganese sulfate TS 15 g/l	100	ml
INP246	Manganese/silver paper R	1	pack of 50
INP247	Mercuric acetate/acetic acid TS	100	ml
INP248	Mercuric bromide As TS	100	ml
INP249	Mercuric bromide paper As R	1	pack of 50
INP250	Mercuric chloride TS 2.7 g/l	100	ml
INP251	Mercuric chloride TS 65 g/l	100	ml
INP252	Mercuric chloride/ethanol TS	100	ml
INP253	Mercuric nitrate VS 0.01 mol/l	1000	ml
INP254	Mercuric nitrate VS 0.02 mol/l	1000	ml
INP255	Mercuric nitrate TS	50	ml
INP256	Mercuric sulfate TS	100	ml
INP257	Methyl green/iodomercurate paper R	1	pack of 50
INP258	Methyl orange ethanol TS	100	ml
INP259	Methyl orange/acetone TS	100	ml
INP260	Methyl red/ethanol TS	250	ml
INP261	Methyl red/methylthioninium chloride TS	50	ml
INP262	Methylamine hydrochloride TS 20 g/l	100	ml
INP263	Methylthioninium chloride TS 0.2 g/l	100	ml
INP264	Methylthioninium chloride TS 1 g/l	100	ml
INP265	Monoethanolamine VS 0.1 mol/l	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP266	Mordant Black 11 indicator mixture R	100	ml
INP267	N-(1-Naphthyl)ethylenediamine hydrochloride TS 1 g/l	100	ml
INP268	N-(1-Naphthyl)ethylenediamine hydrochloride TS 5 g/l	100	ml
INP269	N-(1-Naphthyl)ethylenediamine hydrochloride/1-propanol TS	30	ml
INP270	N-(1-Naphthyl)ethylenediamine/ethanol TS	100	ml
INP271	1-Naphthol/ethanol TS	100	ml
INP272	Neutral red/ethanol TS	100	ml
INP273	Ninhydrin/ 2-propanol TS 5 g/l	100	ml
INP274	Nitric acid TS ~130 g/l	1000	ml
INP275	Nitric acid VS 0.05 mol/l	1000	ml
INP276	Nitric acid VS 1 mol/l	1000	ml
INP277	Nitric acid TS 15 g/l	1000	ml
INP278	Nitric acid TS 3 g/l	1000	ml
INP279	4-Nitroaniline TS1	100	ml
INP280	1-Nitroso-2-naphthol-3,6-disodium disulfonate TS 2 g/l	100	ml
INP281	Opalescence stock standard TS	100	ml
INP282	Oracet blue B/acetic acid TS	100	ml
INP283	Oxalic acid TS 0.05 g/l	100	ml
INP284	Oxalic acid/sulfuric acid TS	100	ml
INP285	Perchloric acid TS ~140 g/l	100	ml
INP286	Perchloric acid VS 0.02 mol/l	1000	ml
INP287	Perchloric acid VS 0.05 mol/l	1000	ml
INP289	Perchloric acid TS	100	ml
INP290	Perchloric acid/dioxan VS 0.1 mol/l	1000	ml
INP291	Periodic-acetic acid TS	100	ml
INP292	o-Phenanthroline TS 1 g/l	100	ml
INP293	o-Phenanthroline TS	100	ml
INP294	Phenol TS 50 g/l	100	ml
INP295	Phenol red/ethanol TS	100	ml
INP296	Phenoldisulfonic acid TS	30	ml
INP297	Phenolphthalein/ethanol TS	100	ml
INP298	Phenolphthalein/pyridine TS	100	ml
INP299	Phenylhydrazine hydrochloride TS 10 g/l	100	ml
INP300	Phenylhydrazine/hydrochloric acid TS	100	ml
INP301	Phosphate buffer TS pH4.0	1000	ml
INP302	Phosphate buffer TS pH6.4	200	ml
INP303	Phosphate buffer TS pH6.9	1000	ml
INP304	Phosphate buffer TS (0.067 mol/l) pH7.0	1000	ml
INP305	Phosphate buffer TS pH7.0	1000	ml
INP306	Phosphate buffer TS pH7.2	1000	ml
INP307	Phosphate buffer TS pH7.4	1000	ml
INP308	Phosphate buffer TS pH7.6	200	ml
INP309	Phosphate buffer TS pH8.0	1000	ml
INP310	Phosphate standard TS 5 µg/ml	100	ml
INP311	Phosphate standard buffer TS pH 6.8	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP312	Phosphate standard buffer TS pH 7.4	1000	ml
INP313	Phosphate/citrate buffer TS pH 4.5	1000	ml
INP314	Phosphate/citrate buffer TS pH 6.0	1000	ml
INP315	Phosphomolybdic acid TS 80 g/l	100	ml
INP316	Phosphomolybdic acid/ethanol TS	100	ml
INP317	Phosphoric acid TS ~105 g/l	1000	ml
INP318	Phosphoric acid TS ~20 g/l	1000	ml
INP319	Phosphoric acid TS ~2.8 g/l	100	ml
INP320	Phthalate buffer TS pH 3.4	200	ml
INP321	Phthalate buffer TS pH 3.5	200	ml
INP322	Phthalate buffer TS pH 4.0	200	ml
INP323	Platinic chloride TS 60 g/l	10	ml
INP324	Potassio-cupric tartrate TS (A+B)	100	ml
INP325	Potassio-mercuric iodide TS	500	ml
INP326	Potassium acetate TS	100	ml
INP327	Potassium bromate VS 0.00833 mol/l	1000	ml
INP328	Potassium bromate VS 0.0167 mol/l	1000	ml
INP329	Potassium bromate VS 0.0333 mol/l	1000	ml
INP330	Potassium bromate TS 50 g/l	100	ml
INP331	Potassium bromide TS 0.119 g/l	100	ml
INP332	Potassium bromide TS 100 g/l	100	ml
INP333	Potassium bromide TS 125 g/l	100	ml
INP334	Potassium chloride TS 100 g/l	100	ml
INP335	Potassium chloride TS 350 g/l	100	ml
INP336	Potassium chromate TS 100 g/l	100	ml
INP337	Potassium cyanide TS 100 g/l	100	ml
INP338	Potassium cyanide TS 50 g/l	100	ml
INP339	Potassium cyanide TS	100	ml
INP340	Potassium dichromate VS 0.0167 mol/l	1000	ml
INP341	Potassium dichromate TS 100 g/l	100	ml
INP342	Potassium dichromate TS	100	ml
INP343	Potassium dichromate TS2	100	ml
INP344	Potassium dichromate TS3	100	ml
INP345	Potassium dihydrogen phosphate TS 100 g/l	100	ml
INP346	Potassium dihydrogen phosphate TS 13.6 g/l	100	ml
INP347	Potassium dihydrogen phosphate TS 27.2 g/l	100	ml
INP348	Potassium dihydrogen phosphate TS 70 g/l	100	ml
INP349	Potassium ferrocyanide TS 45 g/l	100	ml
INP350	Potassium hydrogen phthalate standard TS	100	ml
INP351	Potassium hydroxide TS ~110 g/l	100	ml
INP352	Potassium hydroxide TS ~400 g/l	100	ml
INP353	Potassium hydroxide TS ~55 g/l	100	ml
INP354	Potassium hydroxide TS ~560 g/l	100	ml
INP355	Potassium hydroxide VS 0.01 mol/l	1000	ml
INP356	Potassium hydroxide VS 0.1 mol/l	1000	ml
INP357	Potassium hydroxide VS 0.5 mol/l	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP358	Potassium hydroxide VS 1 mol/l	1000	ml
INP359	Potassium hydroxide/ethanol VS 0.02 mol/l	1000	ml
INP360	Potassium hydroxide/ethanol VS 0.1 mol/l	1000	ml
INP361	Potassium hydroxide/ethanol VS 0.5 mol/l	1000	ml
INP362	Potassium hydroxide/ethanol VS 1 mol/l	1000	ml
INP363	Potassium hydroxide/ethanol TS1	100	ml
INP364	Potassium hydroxide/ethanol TS2	100	ml
INP365	Potassium hydroxide/methanol TS	100	ml
INP366	Potassium iodate VS 0.01 mol/l	1000	ml
INP367	Potassium iodate VS 0.05 mol/l	1000	ml
INP368	Potassium iodide TS 100 g/l	100	ml
INP369	Potassium iodide TS 160 g/l	100	ml
INP370	Potassium iodide TS 300 g/l	100	ml
INP371	Potassium iodide TS 400 g/l	100	ml
INP372	Potassium iodide TS 60 g/l	100	ml
INP373	Potassium iodide TS 80 g/l	100	ml
INP374	Potassium iodide/starch TS1	100	ml
INP375	Potassium iodobismuthate TS1	500	ml
INP376	Potassium iodobismuthate TS2	500	ml
INP377	Potassium iodobismuthate/acetic acid TS	100	ml
INP378	Potassium iodoplatinate TS	10	ml
INP379	Potassium iodoplatinate TS2	100	ml
INP380	Potassium nitrite TS 100 g/l	100	ml
INP381	Potassium periodate TS	100	ml
INP382	Potassium permanganate VS 0.0002 mol/l	1000	ml
INP383	Potassium permanganate VS 0.002 mol/l	1000	ml
INP384	Potassium permanganate VS 0.02 mol/l	1000	ml
INP385	Potassium permanganate TS ~25 g/l	100	ml
INP386	Potassium permanganate TS ~10 g/l	100	ml
INP387	Potassium permanganate TS ~1 g/l	100	ml
INP388	Potassium permanganate basic TS ~5 g/l	100	ml
INP389	Potassium permanganate basic TS ~1 g/l	100	ml
INP390	Potassium permanganate/phosphoric acid TS	100	ml
INP391	Potassium sulfate TS 0.1 g/l	100	ml
INP392	Potassium sulfate TS 174 mg/l	100	ml
INP393	Potassium tetraoxalate standard TS	100	ml
INP394	Potassium thiocyanate TS 200 g/l	100	ml
INP395	Pyrogallol alkaline TS A+B	2x50	ml
INP396	Quinaldine red/ethanol TS	100	ml
INP397	Quinaldine red/methanol TS	100	ml
INP398	Quinhydrone/methanol TS	100	ml
INP399	Red stock standard TS	100	ml
INP400	Resorcinol TS 20 g/l	100	ml
INP401	Salicylaldehyde TS	100	ml
INP402	Selenious acid/sulfuric acid TS	100	ml
INP403	Silver nitrate VS 0.001 mol/l	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP404	Silver nitrate VS 0.01 mol/l	1000	ml
INP405	Silver nitrate VS 0.05 mol/l	1000	ml
INP406	Silver nitrate VS 0.1 mol/l	1000	ml
INP407	Silver nitrate VS 100 g/l	100	ml
INP408	Silver nitrate TS 40 g/l	100	ml
INP409	Silver standard TS 5 µg/ml Ag	100	ml
INP410	Sodium acetate VS 0.04 mol/l	1000	ml
INP411	Sodium acetate TS 150 g/l	100	ml
INP412	Sodium acetate TS 50 g/l	100	ml
INP413	Sodium acetate TS 60 g/l	100	ml
INP414	Sodium acetate/glacial acetic acid VS 0.1 mol/l	1000	ml
INP415	Sodium alizarinsulfonate TS 1 g/l	100	ml
INP416	Sodium alizarinsulfonate TS 10 g/l	100	ml
INP417	Sodium arsenite VS 0.05 mol/l	1000	ml
INP418	Sodium arsenite VS 0.1 mol/l	1000	ml
INP419	Sodium carbonate TS 10 g/l	100	ml
INP420	Sodium carbonate TS 200 g/l	100	ml
INP421	Sodium carbonate TS 50 g/l	100	ml
INP422	Sodium carbonate TS 75 g/l	100	ml
INP423	Sodium carbonate standard TS	100	ml
INP424	Sodium chloride TS 10 g/l	100	ml
INP425	Sodium chloride TS 300 g/l	100	ml
INP426	Sodium chloride TS 400 g/l	100	ml
INP427	Sodium chloride TS 9 g/l	100	ml
INP428	Sodium citrate TS 250 g/l	100	ml
INP429	Sodium cobaltinitrite TS 100 g/l	100	ml
INP430	Sodium diethyldithiocarbamate TS 0.8 g/l	100	ml
INP431	Sodium dihydrogen phosphate TS 275 g/l	100	ml
INP432	Sodium dihydrogen phosphate TS 45 g/l	100	ml
INP433	Sodium hydrogen carbonate TS 100 g/l	100	ml
INP434	Sodium hydrogen carbonate TS 40 g/l	100	ml
INP435	Sodium hydroxide TS ~150 g/l	100	ml
INP436	Sodium hydroxide TS ~200 g/l	100	ml
INP437	Sodium hydroxide TS ~300 g/l	100	ml
INP438	Sodium hydroxide TS ~400 g/l	100	ml
INP439	Sodium hydroxide TS ~80 g/l	100	ml
INP440	Sodium hydroxide TS ~40 g/l	100	ml
INP441	Sodium hydroxide VS 0.001 mol/l	1000	ml
INP442	Sodium hydroxide VS 0.01 mol/l	1000	ml
INP443	Sodium hydroxide carbonate-free VS 0.01 mol/l	1000	ml
INP444	Sodium hydroxide VS 0.02 mol/l	1000	ml
INP445	Sodium hydroxide carbonate-free VS 0.02 mol/l	1000	ml
INP446	Sodium hydroxide VS 0.05 mol/l	1000	ml
INP447	Sodium hydroxide VS 0.1 mol/l	1000	ml
INP448	Sodium hydroxide carbonate-free VS 0.1 mol/l	1000	ml
INP449	Sodium hydroxide VS 0.2 mol/l	1000	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP450	Sodium hydroxide carbonate-free VS 0.2 mol/l	1000	ml
INP451	Sodium hydroxide VS 0.5 mol/l	1000	ml
INP452	Sodium hydroxide carbonate-free VS 0.5 mol/l	1000	ml
INP453	Sodium hydroxide VS 1 mol/l	1000	ml
INP454	Sodium hydroxide carbonate-free VS 1 mol/l	1000	ml
INP455	Sodium hydroxide TS 10 g/l	100	ml
INP456	Sodium hydroxide TS 50 g/l	100	ml
INP457	Sodium hydroxide/ethanol TS	100	ml
INP458	Sodium hydroxide/methanol TS	100	ml
INP459	Sodium laurilsulfate TS 10 g/l	100	ml
INP460	Sodium metabisulfite TS 50 g/l	100	ml
INP461	Sodium metaperiodate TS	100	ml
INP462	Sodium methoxide VS 0.1 mol/l	1000	ml
INP463	Sodium molybdotungstophosphate TS	100	ml
INP464	Sodium nitrite VS 0.1 mol/l	1000	ml
INP465	Sodium nitrite TS 10 g/l	100	ml
INP466	Sodium nitrite TS 100 g/l	100	ml
INP467	Sodium nitrite TS 20 g/l	100	ml
INP468	Sodium nitrite TS 3 g/l	100	ml
INP469	Sodium nitrite TS 35 g/l	100	ml
INP470	Sodium nitrite TS 50 g/l	100	ml
INP471	Sodium nitrite/hydrochloric acid TS	100	ml
INP472	Sodium nitroprusside TS 8.5 g/l	100	ml
INP473	Sodium nitroprusside TS alkaline	100	ml
INP474	Sodium salicylate TS 11.5 g/l	100	ml
INP475	Sodium standard (200 µg/ml Na) TS	100	ml
INP476	Sodium sulfide TS	100	ml
INP477	Sodium tetraborate TS 10 g/l	100	ml
INP478	Sodium tetraborate standard TS	125	ml
INP479	Sodium tetraphenylborate TS 30 g/l	100	ml
INP480	Sodium thiosulfate VS 0.002mol/l	1000	ml
INP481	Sodium thiosulfate VS 0.01 mol/l	1000	ml
INP482	Sodium thiosulfate VS 0.02 mol/l	1000	ml
INP483	Sodium thiosulfate VS 0.05 mol/l	1000	ml
INP484	Sodium thiosulfate VS 0.1 mol/l	1000	ml
INP485	Sodium thiosulfate TS 320 g/l	100	ml
INP486	Stannous chloride As TS	100	ml
INP487	Stannous chloride TS	100	ml
INP488	Stannous chloride/hydrochloric acid TS1	100	ml
INP489	Sudan red TS	100	ml
INP490	Sulfamic acid TS 5 g/l	100	ml
INP491	Sulfanilic acid diazotized TS	50	ml
INP492	Sulfosalicylic acid TS 175 g/l	100	ml
INP493	Sulfuric acid TS ~10 g/l	100	ml
INP494	Sulfuric acid TS ~100 g/l	100	ml
INP495	Sulfuric acid TS ~1125 g/l	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP496	Sulfuric acid TS ~190 g/l	100	ml
INP497	Sulfuric acid TS ~440 g/l	100	ml
INP498	Sulfuric acid TS ~50 g/l	100	ml
INP499	Sulfuric acid TS ~570 g/l	100	ml
INP500	Sulfuric acid TS ~635 g/l	100	ml
INP501	Sulfuric acid TS ~700 g/l	100	ml
INP502	Sulfuric acid VS 0.005 mol/l	1000	ml
INP503	Sulfuric acid VS 0.01 mol/l	1000	ml
INP504	Sulfuric acid VS 0.05 mol/l	1000	ml
INP505	Sulfuric acid VS 0.1 mol/l	1000	ml
INP506	Sulfuric acid VS 0.125 mol/l	1000	ml
INP507	Sulfuric acid VS 0.25 mol/l	1000	ml
INP508	Sulfuric acid VS 0.5 mol/l	1000	ml
INP509	Sulfuric acid/ethanol VS ~0.05 mol/l	100	ml
INP510	Sulfuric acid/ethanol TS	100	ml
INP511	Sulfuric acid/methanol TS	100	ml
INP512	Tannic acid TS 50 g/l	100	ml
INP513	Tartaric acid TS 10 g/l	100	ml
INP514	Tartaric acid TS 200 g/l	100	ml
INP515	Tartaric acid TS 5 g/l	100	ml
INP516	Tetrabutylammonium hydroxide VS 0.1 mol/l	100	ml
INP517	Tetrabutylammonium hydroxide TS	100	ml
INP518	Tetrabutylammonium hydroxide/methanol TS	100	ml
INP519	Tetramethylammonium hydroxide/ethanol TS	100	ml
INP520	Thiourea TS 0.1 g/l	100	ml
INP521	Thorium nitrate 0.005 mol/l	1000	ml
INP522	Thymol blue/dimethylformamide TS	100	ml
INP523	Thymol blue/ethanol TS	100	ml
INP524	Thymol blue/methanol TS	100	ml
INP525	Thymol TS1	100	ml
INP526	Thymol TS2	100	ml
INP527	Thymol TS3	100	ml
INP528	Thymolphthalein/dimethylformamide TS	100	ml
INP529	Thymolphthalein/ethanol TS	100	ml
INP530	Titan yellow TS	100	ml
INP531	Titanium dioxide/sulfuric acid TS	100	ml
INP532	Titanium trichloride VS 0.1 mol/l	1000	ml
INP533	4-Toluenesulfonic acid/ethanol TS	100	ml
INP534	Triketohydrindene/butanol TS	100	ml
INP535	Triketohydrindene/butanol/acetic acid TS	100	ml
INP536	Triketohydrindene/ethanol TS	100	ml
INP537	Triketohydrindene/pyridine/acetone TS	100	ml
INP538	Triketohydrindene/sodium metabisulfite TS	100	ml
INP539	Trimethylpyridine TS 50 g/l	100	ml
INP540	Trisodium orthophosphate TS 2 g/l	100	ml
INP541	Vanadium/sulfuric acid TS	100	ml

Ref. Number	Description	Volume (other volumes also possible)	msr
INP542	Water R	5000	ml
INP543	Water R	1000	ml
INP544	Water carbon-dioxide-free and ammonia-free R	1000	ml
INP545	Water carbon-dioxide-free R	1000	ml
INP546	Xylenol orange indicator mixture R	50	ml
INP547	Yellow stock standard TS	100	ml
INP548	Zinc standard TS 20 µg/ml Zn	100	ml
INP549	Zirconyl nitrate TS	100	ml

The background features several wavy lines in shades of green and grey. Scattered across these lines are several circular icons: some are solid green with a white dot in the center, others are green with a white arrow pointing right, and one is a segmented circle with a green arrow. The central text is enclosed in a large green circle.

CONTACT US AT:

  (+359) 42 607716

 sales@cpachem.com