

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 Phthalate (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 Phthalate	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 Acid/ Potassium Chloride/ Sodium Hydroxide	500	ml
PH110.1L		1000	ml
PH111.L5	pH 11.00 at 20 C Boric Acid/ 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) KMnO ₄	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