

Standards of Ethanol in Water

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

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

Accuracy is $\pm 0.02\%$

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

Analytical Volumetric Solutions

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

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

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

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

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

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



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

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



Concentrated Volumetric Solutions

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

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

DESCRIPTION	VALIDITY months	REF	VOLUME	UNIT
EDTA - concentrate to make 1L 0.1M solution	12	CC1031005	100	ml
EDTA - concentrate to make 1L 0.01 M solution	12	CC1031006	100	ml
EDTA - concentrate to make 1L 0.005 M solution	12	CC1031007	100	ml
EDTA - concentrate to make 1L 0.05M solution	12	CC1031008	100	ml
Ammonia - concentrate to make 1L 1M solution	12	CC1227002	100	ml
Hydrochloric Acid - concentrate to make 1L 1M solution	12	CC1341007	100	ml
Hydrochloric Acid - concentrate to make 1L 0.1M (0.1N) solution	12	CC1341010	100	ml
Iodine - concentrate to make 1L 0.05M (0.1N) solution	12	CC1350011	100	ml
Iodine - concentrate to make 1L 0.025M (0.05 N) solution	12	CC1350012	100	ml
Iodine - concentrate to make 1L 0.005M (0.01 N) solution	12	CC1350013	100	ml
Nitric Acid - concentrate to make 1L 1M (1N) solution	12	CC1422014	100	ml
Nitric Acid 0.1 M (0.1N) concentrated solution	12	CC1422015	100	ml
Potassium Dichromate - concentrate to make 1L 1/60M (0.1N) solution	12	CC1430011	100	ml
Potassium iodate - concentrate to make 1L 1/60M (0.1N) solution	12	CC14581071	100	ml
Potassium Permanganate concentrate to make 1L 1/50M (0.1N) KMnO ₄	12	CC1464016	100	ml
Silver nitrate - Concentrate to make 1L 0.1M (0.1N) solution	12	CC1494018	100	ml
Sodium Hydroxide - concentrate to make 1L 1M (1N) solution	12	CC1517019	100	ml
Sodium Hydroxide -concentrate to make 1L 0.1M (0.1N) solution	12	CC1517021	100	ml
Sodium Hydroxide - concentrate to make 1L 0.01M (0.01N) solution	12	CC1517022	100	ml
Sodium Thiosulphate - concentrate to make 1L 0.1M (0.1N) solution	12	CC1532023	100	ml
Sodium Thiosulphate - concentrate to make 1L 0.01M (0.01N) solution	12	CC1532024	100	ml
Sulphuric Acide - concentrate to make 1L 0.5M (1N) solution	12	CC1545025	100	ml
Sulphuric Acid - concentrate to make 1L 0.1N solution	12	CC1545026	100	ml