Объемные решения, растворы

Технические характеристики

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VOLUMETRIC SOLUTIONS

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Scharlau

Acetic acid, solution 0,1 mol/l (0,1 N)

- CH3COOH
- M = 60,05 g/mol
- CAS [64-19-7]
- EINECS-No.: 200-580-7
- Density: ~ 1,002 g/cm3
- Solub. in water: (20 ºC): miscible
- EC-Index-No.: 607-002-00-6
- Tariff number: 2915 21 00 00
- Applications: analytical chemistry, acidifying agent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,006 g CH3COOH This solution was analysed using a certified reference material (potassium hydrogen phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Volume
x 1 l
Reference
AC03641000

Packaging
x 1 l :: Plastic bottle

Acetic acid, solution 1 mol/l (1 N)

- CH3COOH
- M = 60,05 g/mol
- CAS [64-19-7]
- EINECS-No.: 200-580-7
- Density: 1,01 g/cm3
- EC-Index-No.: 607-002-00-6
- Tariff number: 2915 21 00 00
- Applications: analytical chemistry, acidifying agent, titrant in volumetric analysis.
- Appearance: Colourless clear liquid

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,060 g CH3COOH This solution was analysed using a certified reference material (potassium hydrogen phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Volume
x 1 l
Reference
AC03651000
Packaging
x 1 l :: Plastic bottle

Ammonium iron(III) sulfate, solution 0,1 mol/l (0,1 N)

- NH4Fe(SO4)2·12H2O
- M = 482,19 g/mol
- CAS [7783-83-7]
- EINECS-No.: 233-382-4
- Density: 1,025 g/cm3
- Tariff number: 2833 30 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,003

1 ml = 0,04822 g (NH4)Fe(SO4)2 ·12H2O This volumetric solution was checked by means of potentiometric methods using a sodium thiosulfate standard solution, that was also checked against Scharlau's potassium iodate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Volume
x 1 l
Reference
HI03171000
Packaging
x 1 l :: Plastic bottle

Ammonium thiocyanate, solution 0,1 mol/l (0,1 N)

- NH4SCN
- M = 76,12 g/mol
- CAS [1762-95-4]
- EINECS-No.: 217-175-6
- Density: 1,00 g/cm3
- LD 50 (oral, rat): 500 mg/kg (pure substance)
- EC-Index-No.: 615-004-00-3
- Tariff number: 2842 90 80 80
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,007612 g NH4SCN This volumetric solution was checked by means of potentiometric methods using a silver nitrate standard solution, that was also checked against Scharlau's potassium chloride volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Calcium chloride, solution 1 mol/l

- CaCl2
- M = 110,99 g/mol
- CAS [10043-52-4]
- EINECS-No.: 233-140-8
- Density: 1,08 g/cm3
- LD 50 (oral, rat): 1000 mg/kg (pure substance)
- EC-Index-No.: 017-013-00-2
- GHS-signal word: Warning
- GHS-H sentences: H319
- GHS-P sentences: P280 - P264 - P305+P351+P338 - P337+P313
- Tariff number: 2827 20 00 00
- Applications: analytical chemistry, in food industry, in antifreeze compositions.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,11099 g CaCl2 This volumetric solution was checked by means of potentiometric methods using an EDTA disodium salt standard solution, that was also checked against Scharlau's calcium carbonate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Cerium(IV) sulfate, solution 0,05 mol/l (0,05 N)

- Ce(SO4)2·4H2O
- M = 404,30 g/mol
- CAS [10294-42-5]
- EINECS-No.: 237-029-5
- Density: 1,04 g/cm3
- Tariff number: 2846 10 00 90
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,020215 g Ce(SO4)2·4H2O This solution was analysed using a certified reference material (sodium oxalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 8040 (Sodium Oxalate (Reductometric Standard)).

Cerium(IV) sulfate, solution 0,1 mol/l (0,1 N)

- Ce(SO4)2·4H2O
- M = 404,30 g/mol
- CAS [10294-42-5]
- EINECS-No.: 237-029-5
- Density: 1,08 g/cm3
- Tariff number: 2846 10 00 90
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,04043 g Ce(SO4)2·4H2O This solution was analysed using a certified reference material (sodium oxalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 8040 (Sodium Oxalate (Reductometric Standard)).

Copper(II) sulfate, solution 0,02 mol/l

- CuSO4
- M = 159,60 g/mol
- CAS [7758-98-7]
- EINECS-No.: 231-847-6
- Density: ~ 1,00 g/cm3
- EC-Index-No.: 029-004-00-0
- GHS-H sentences: H412
- GHS-P sentences: P273 - P501a
- Tariff number: 2833 25 00 00
- Applications: analytical chemistry.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

pH : 4,2 - 4,8
This volumetric solution was checked by means of potentiometric methods using an EDTA disodium salt standard solution, that was also checked against Scharlau's calcium carbonate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Copper(II) sulfate, solution 0,1 mol/l

- $CuSO_4$
- M = 159,60 g/mol
- CAS [7758-98-7]
- EINECS-No.: 231-847-6
- Density: 1,02 g/cm3
- EC-Index-No.: 029-004-00-0
- GHS-H sentences: H412
- GHS-P sentences: P273 - P501a
- Tariff number: 2833 25 00 00
- Applications: analytical chemistry, fungicide.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,024968 g $CuSO_4 \cdot 5H_2O$ This volumetric solution was checked by means of potentiometric methods using an EDTA disodium salt standard solution, that was also checked against Scharlau's calcium carbonate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Ethylenediaminetetraacetic acid, EDTA, disodium salt, solution 0,01 mol/l (0,02 N)

- $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$
- M = 372,24 g/mol
- CAS [6381-92-6]
- EINECS-No.: 205-358-3
- Density: 0,996 g/cm3
- Tariff number: 2922 49 95 90
- Applications: analytical chemistry, sequestering agent, for metals titration.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001 This solution was analysed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

Ethylenediaminetetraacetic acid, EDTA, disodium salt, solution 0,02 mol/l (0,04 N)

- C10H14N2Na2O8·2H2O
- M = 372,24 g/mol
- CAS [6381-92-6]
- EINECS-No.: 205-358-3
- Density: 0,99 g/cm3
- LD 50 (oral, rat): 2000 mg/kg (EDTA disodium salt)
- Tariff number: 2922 49 95 90
- Applications: analytical chemistry, sequestering agent, for metals titration.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001 This solution was analysed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

Ethylenediaminetetraacetic acid, EDTA, disodium salt, solution 0,025 mol/l (0,05 N)

- C10H14N2Na2O8·2H2O
- M = 372,24 g/mol
- CAS [6381-92-6]
- EINECS-No.: 205-358-3
- Density: 0,998 g/cm3
- LD 50 (oral, rat): 2000 mg/kg (EDTA disodium salt)
- Tariff number: 2922 49 95 90
- Applications: analytical chemistry, sequestering agent, for metals titration.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001 This solution was analysed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

Ethylenediaminetetraacetic acid, EDTA, disodium salt, solution 0,05 mol/l (0,1 N)

- C10H14N2Na2O8·2H2O
- M = 372,24 g/mol
- CAS [6381-92-6]
- EINECS-No.: 205-358-3
- Density: 1,01 g/cm3
- LD 50 (oral, rat): 2000 mg/kg (EDTA disodium salt)
- Tariff number: 2922 49 95 90
- Applications: analytical chemistry, sequestering agent, for metals titration.

SPECIFICATIONS

factor: 0,999 - 1,001:
uncertainty ± 0,001 This solution was analysed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

Ethylenediaminetetraacetic acid, EDTA, disodium salt, solution 0,1 mol/l (0,2 N)

- C10H14N2Na2O8·2H2O
- M = 372,24 g/mol
- CAS [6381-92-6]
- EINECS-No.: 205-358-3
- Density: 1,01 g/cm3
- LD 50 (oral, rat): 2000 mg/kg (EDTA disodium salt)
- Tariff number: 2922 49 95 90
- Applications: analytical chemistry, sequestering agent, for metals titration.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001 This solution was analysed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

Hanus solution, IBr solution 0,1 mol/l (0,2 N)

- Synonyms: Iodine solution according to Hanus
- IBr
- Density: 1,06 g/cm3
- Solub. in water: (20 ºC): miscible
- Flash pt. 40 ºC
- LD 50 (oral, rat): 3310 mg/kg (chief component)
- ADR: 8 CF1 II UN 2789
- IMDG: 8 II UN 2789
- IATA/ICAO: 8 II UN 2789
- GHS-signal word: Danger
- GHS-H sentences: H314 - H226 - H312
- GHS-P sentences: P210 - P303+P361+P353 - P305+P351+P338 - P310 - P370+P378 - P405 - P501a
- Tariff number: 3822 00 00 00
- Applications: analytical chemistry, for determination of: iodine.
- Appearance: Brown liquid

SPECIFICATIONS
suitability for det. of iodine index : passes test

Hyamine® 1622, solution 0,004 mol/l (Hyamine is a trademark of Rohm and Haas Company)

- C27H42ClNO2
- M = 448,18 g/mol
- CAS [121-54-0]
- EINECS-No.: 204-479-9
- Density: 1,0 g/cm3
- Tariff number: 2923 90 00 90
- Applications: analytical chemistry, for determination of: tensioactive substances (detergent).

SPECIFICATIONS
factor: 0,995 - 1,005

1 ml = 0,001792 g Hyamine This volumetric solution was checked by means of classical methods using a freshly prepared sodium lauryl standard solution made of sodium lauryl sulfate, reagent grade

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Scharlau

Hydrochloric acid, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: ~ 1,03 g/cm3
- Solub. in water: (20 ºC): miscible
- EC-Index-No.: 017-002-01-X
- GHS-P sentences: P280 - P305+P351+P338 - P310
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS

concentrated solution: 1 mol/l ± 0,1 %

Scharlau

Hydrochloric acid, solution 0,01 mol/l (0,01 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 0,994 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,0003646 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Hydrochloric acid, solution 0,05 mol/l (0,05 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 0,996 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,0018235 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Hydrochloric acid, solution 0,1 mol/l (0,1 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,00 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,003646 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Hydrochloric acid, solution 0,2 mol/l (0,2 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: ~ 1,01 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 -1,001
uncertainty ± 0,001

1 ml = 0,007292 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 0,25 mol/l (0,25 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,00 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,009115 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 0,5 mol/l (0,5 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,01 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 III UN 1789
- IMDG: 8 III UN 1789
- IATA/ICAO: 8 III UN 1789
- GHS-signal word: Danger
- GHS-H sentences: H290
- GHS-P sentences: P260 - P303+P361+P353 - P305+P351+P338 - P310 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,018235 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by

means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 1 mol/l (1 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,01 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 III UN 1789
- IMDG: 8 III UN 1789
- IATA/ICAO: 8 III UN 1789
- GHS-signal word: Danger
- GHS-H sentences: H290
- GHS-P sentences: P260 - P303+P361+P353 - P305+P351+P338 - P310 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,03646 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 2 mol/l (2 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: ~ 1,03 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 II UN 1789
- IMDG: 8 II UN 1789
- IATA/ICAO: 8 II UN 1789
- GHS-signal word: Warning
- GHS-H sentences: H290 - H315 - H319 - H335 -
- GHS-P sentences: P261 - P280 - P305+P351+P338 - P321 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,07292 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Hydrochloric acid, solution 3 mol/l (3 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: ~ 1,06 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 II UN 1789
- IMDG: 8 II UN 1789
- IATA/ICAO: 8 II UN 1789
- GHS-signal word: Warning
- GHS-H sentences: H290 - H315 - H319 - H335
- GHS-P sentences: P261 - P280 - P305+P351+P338 - P321 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis, for the analysis of: fats.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,10938 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Hydrochloric acid, solution 5 mol/l (5 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,08 g/cm3
- Solub. in water: (20 °C): miscible
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 II UN 1789
- IMDG: 8 II UN 1789
- IATA/ICAO: 8 II UN 1789
- GHS-signal word: Danger
- GHS-H sentences: H290 - H315 - H318 - H335
- GHS-P sentences: P261 - P280 - P305+P351+P338 - P321 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis, for the analysis of: fats.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,18235 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by

means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 6 mol/l (6 N)

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,098 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 II UN 1789
- IMDG: 8 II UN 1789
- IATA/ICAO: 8 II UN 1789
- GHS-signal word: Warning
- GHS-H sentences: H290 - H315 - H318 - H335
- GHS-P sentences: P261 - P280 - P305+P351+P338 - P321 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis, for the analysis of: fats.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,21876 g HCl This solution was analysed using a certified reference material (tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Iodine, solution 0,01 mol/l (0,02 N)

- I2
- M = 253,81 g/mol
- CAS [7553-56-2]
- EINECS-No.: 231-442-4
- Density: 1,005 g/cm3
- EC-Index-No.: 053-001-00-3
- Tariff number: 2801 20 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,001

1 ml = 0,002538 g I2 This volumetric solution was checked by means of potentiometric methods using a sodium thiosulfate standard solution, that was also checked against Scharlau's potassium iodate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Scharlau

Iodine, solution 0,02365 mol/l (0,0473 N)

- I2
- M = 253,81 g/mol
- CAS [7553-56-2]
- EINECS-No.: 231-442-4
- EC-Index-No.: 053-001-00-3
- Tariff number: 2801 20 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,001

1 ml = 0,006003 g I2 This volumetric solution was checked by means of potentiometric methods using a sodium thiosulfate standard solution, that was also checked against Scharlau's potassium iodate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Scharlau

Iodine, solution 0,05 mol/l (0,1 N)

- I2
- M = 253,81 g/mol
- CAS [7553-56-2]
- EINECS-No.: 231-442-4
- Density: 1,02 g/cm3
- EC-Index-No.: 053-001-00-3
- Tariff number: 2801 20 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,001

1 ml = 0,0127 g I2 This volumetric solution was checked by means of potentiometric methods using a sodium thiosulfate standard solution, that was also checked against Scharlau's potassium iodate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Scharlau

Iodine, solution 0,5 mol/l (1 N)

- I2
- M = 253,81 g/mol
- CAS [7553-56-2]
- EINECS-No.: 231-442-4
- Density: 1,27 g/cm3
- EC-Index-No.: 053-001-00-3
- GHS-signal word: Warning
- GHS-H sentences: H332
- GHS-P sentences: P261 - P271 - P304+P340 - P312
- Tariff number: 2801 20 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,001

1 ml = 0,127 g I2 This volumetric solution was checked by means of potentiometric methods using a sodium thiosulfate standard solution, that was also checked against Scharlau's potassium iodate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Lead(II) nitrate, solution 0,05 mol/l

- Pb(NO3)2
- M = 331,21 g/mol
- CAS [10099-74-8]
- EINECS-No.: 233-245-9
- EC-Index-No.: 082-001-00-6
- ADR: 6.1 T4 III UN 3287
- IMDG: 6.1 III UN 3287
- IATA/ICAO: 6.1 III UN 3287
- GHS-signal word: Danger
- GHS-H sentences: H360D - H373 - H412 - EUH201
- GHS-P sentences: P260 - P280 - P273 - P308+P313 - P405 - P501a
- Tariff number: 2834 29 20 00
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 - 1,001
uncertainty ± 0,001

1 ml = 0,01656 g Pb(NO3)2 This volumetric solution was checked by means of potentiometric methods using an EDTA disodium salt standard solution, that was also checked against Scharlau's calcium carbonate volumetric standard. Scharlau's volumetric standards are directly traceable to the Standard Reference Materials from NIST (National Institute of Standards and Technology, USA).

Magnesium sulfate, solution 0,01 mol/l

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Mercury(II) nitrate, solution 0,01 mol/l (0,02 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Nitric acid, solution 0,1 mol/l (0,1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Nitric acid, solution 1 mol/l (1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Nitric acid, solution 2 mol/l (2 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

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ortho-Phosphoric acid, solution 1 mol/l

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Oxalic acid, solution 0,005 mol/l (0,01 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Oxalic acid, solution 0,05 mol/l (0,1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are

guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Perchloric acid, solution in acetic acid 0,1 mol/l (0,1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Potassium bromate, solution 1/60 mol/l (0,1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Potassium dichromate, solution 1/24 mol/l (0,25 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Potassium dichromate, solution 1/6 mol/l (1 N)

Potassium dichromate, solution 1/60 mol/l (0,1N)

Potassium hydroxide, ethanolic solution 0,1 mol/l

Potassium hydroxide, solution 0,01 mol/l (0,01 N) in 2-propanol

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Potassium hydroxide, solution 0,05 mol/l (0,05 N) in 2-propanol

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Potassium hydroxide, solution 0,1 mol/l (0,1 N)

Titration is a very accurate analytical method that relies on exact knowledge of titrant concentrations. The titrated solutions are manufactured to the highest precision and are guaranteed to a factor of 1,000. They are available in different concentrations and formats, and are supplied with certificates of analysis that guarantee their traceability and accuracy.

Potassium hydroxide, solution 0,1 mol/l (0,1 N) in 2-propanol

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Potassium hydroxide, solution 0,1 mol/l (0,1 N) in methanol

Potassium hydroxide, solution 0,5 mol/l (0,5 N)

Potassium hydroxide, solution 0,5 mol/l (0,5 N) in methanol

Potassium hydroxide, solution 1 mol/l (1 N)

Potassium hydroxide, solution 2 mol/l (2 N)

Potassium permanganate, concentrated solution to prepare 1 l of solution 0,02 mol/l (0,1 N)

Potassium permanganate, solution 0,02 mol/l (0,1 N)

Potassium permanganate, solution 0,2 mol/l (1 N)

Potassium thiocyanate, solution 0,1 mol/l (0,1 N)

Scharlau

Silver nitrate, solution 0,01 mol/l (0,01 N)

Scharlau

Silver nitrate, solution 0,02 mol/l (0,02 N)

Scharlau

Silver nitrate, solution 0,05 mol/l (0,05 N)

Scharlau

Silver nitrate, solution 0,1 mol/l (0,1 N)

Scharlau

Silver nitrate, solution 1 mol/l (1 N)

Scharlau

Sodium carbonate, solution 0,05 mol/l (0,1 N)

Scharlau

Sodium carbonate, solution 0,5 mol/l (1 N)

Scharlau

Sodium chloride, solution 0,1 mol/l (0,1 N)

Sodium hydroxide, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)

Sodium hydroxide, concentrated solution to prepare 1 l of solution 1 mol/l (1 N)

Sodium hydroxide, solution 0,01 mol/l (0,01 N)

Sodium hydroxide, solution 0,02 mol/l (0,02 N)

Sodium hydroxide, solution 0,025 mol/l (0,025 N)

Sodium hydroxide, solution 0,05 mol/l (0,05 N)

Sodium hydroxide, solution 0,1 mol/l (0,1 N)

Sodium hydroxide, solution 0,2 mol/l (0,2 N)

Sodium hydroxide, solution 0,25 mol/l (0,25 N)

Sodium hydroxide, solution 0,313 mol/l (0,313 N)

Sodium hydroxide, solution 0,3546 mol/l (0,3546 N)

Sodium hydroxide, solution 0,4 mol/l (0,4 N)

Sodium hydroxide, solution 0,5 mol/l (0,5 N)

Sodium hydroxide, solution 1 mol/l (1 N)

Scharlau

Sodium hydroxide, solution 1,66 mol/l (1,66 N)

Scharlau

Sodium hydroxide, solution 1/4,9 mol/l (1/4,9 N)

Scharlau

Sodium hydroxide, solution 1/9 mol/l (1/9 N) according to Dornic

Scharlau

Sodium hydroxide, solution 2 mol/l (2 N)

Scharlau

Sodium hydroxide, solution 5 mol/l (5 N)

Scharlau

Sodium hydroxide, solution 6 mol/l (6 N)

Scharlau

Sodium lauryl sulfate, solution 0,004 mol/l

Scharlau

Sodium metaarsenite, solution 0,05 mol/l (0,1 N)

Scharlau

Sodium nitrate, solution 1 mol/l

Scharlau

Sodium thiosulfate, solution 0,002 mol/l (0,002 N)

Scharlau

Sodium thiosulfate, solution 0,01 mol/l (0,01 N)

Scharlau

Sodium thiosulfate, solution 0,05 mol/l (0,05 N)

Scharlau

Sodium thiosulfate, solution 0,1 mol/l (0,1 N)

Scharlau

Sodium thiosulfate, solution 0,282 mol/l (0,282 N)

Scharlau

Sodium thiosulfate, solution 0,5 mol/l (0,5 N)

Scharlau

Sodium thiosulfate, solution 1 mol/l (1 N)

Scharlau

Sulfuric acid, concentrated solution to prepare 1 l of solution 0,5 mol/l (1 N)

Scharlau

Sulfuric acid, solution 0,01 mol/l (0,02 N)

Scharlau

Sulfuric acid, solution 0,025 mol/l (0,05 N)

Scharlau

Sulfuric acid, solution 0,05 mol/l (0,1 N)

Scharlau

Sulfuric acid, solution 0,1 mol/l (0,2 N)

Scharlau

Sulfuric acid, solution 0,125 mol/l (0,25 N)

Scharlau

Sulfuric acid, solution 0,13 mol/l (0,26 N)

Scharlau

Sulfuric acid, solution 0,25 mol/l (0,5 N)

Scharlau

Sulfuric acid, solution 0,5 mol/l (1 N)

Scharlau

Sulfuric acid, solution 1 mol/l (2 N)

Scharlau

Sulfuric acid, solution 2,5 mol/l (5 N)

Scharlau

Sulfuric acid, solution 5 mol/l (10 N)

Scharlau

Tetrabutylammonium hydroxide, solution 0,1 mol/l, in 2-propanol/methanol

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Wijs solution, ICl solution 0,1 mol/l (0,2 N)

Zinc sulfate, solution 0,05 mol/l

Zinc sulfate, solution 0,1 mol/l

VOLUMETRIC SOLUTIONS ACCORDING TO PHARMACOPOEIA

Pharmacopeia-graded solutions are chemical solutions with known concentrations that comply with the standards and methods outlined in official pharmacopeias, such as Ph.Eur. or USP. They are used to calibrate analytical instruments and conduct quality tests.

Ammonium thiocyanate, solution 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. USP

- NH4SCN
- M = 76,12 g/mol
- CAS [1762-95-4]
- EINECS-No.: 217-175-6
- Density: 1,00 g/cm3
- LD 50 (oral, rat): 500 mg/kg (pure substance)
- EC-Index-No.: 615-004-00-3
- Tariff number: 2842 90 80 80
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,007612 g NH4SCN This solution was checked using a silver nitrate standard solution, that was also analyzed using a certified reference material (sodium chloride). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 999 (Potassium Chloride Primary Standard).

Cerium(IV) sulfate, solution 0,1 mol/l (0,1 N), Reag. Ph Eur

- Ce(SO4)2·4H2O
- M = 404,30 g/mol
- CAS [10294-42-5]
- EINECS-No.: 237-029-5
- Density: 1,08 g/cm3
- Tariff number: 2846 10 00 90
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,04043 g Ce(SO4)2·4H2O This solution was analyzed using a certified reference material (Ferrous ethylenediammonium sulfate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 8040 (Sodium Oxalate (Reductometric Standard)).

Hydrochloric acid, solution 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. USP

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,00 g/cm3
- EC-Index-No.: 017-002-01-X
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, laboratory reagent.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,003646 g HCl This solution was analyzed using a certified reference material (Tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Hydrochloric acid, solution 1 mol/l (1 N), Reag. Ph Eur, Reag. USP

- HCl
- M = 36,46 g/mol
- CAS [7647-01-0]
- EINECS-No.: 231-595-7
- Density: 1,01 g/cm3
- EC-Index-No.: 017-002-01-X
- ADR: 8 C1 III UN 1789
- IMDG: 8 III UN 1789
- IATA/ICAO: 8 III UN 1789
- GHS-signal word: Danger
- GHS-H sentences: H290
- GHS-P sentences: P260 - P303+P361+P353 - P305+P351+P338 - P310 - P405 - P501a
- Tariff number: 2806 10 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,03646 g HCl This solution was analyzed using a certified reference material (Tris(hydroxymethyl)-aminomethane). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 723 (Tris(hydroxymethyl)aminomethane (HOCH2)3CNH2 (Acidimetric Standard)).

Scharlau

Iodine, solution 0,05 mol/l (0,1 N), Reag. Ph Eur, Reag. ChP

- I2
- M = 253,81 g/mol
- CAS [7553-56-2]
- EINECS-No.: 231-442-4
- Density: 1,02 g/cm3
- EC-Index-No.: 053-001-00-3
- Tariff number: 2801 20 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,995 - 1,005
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,0127 g I2 This solution was checked using a sodium thiosulfate standard solution, that was also analyzed using a certified reference material (potassium iodate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 136 (Potassium Dichromate (Oxidimetric Standard)).

Scharlau

Perchloric acid, solution in acetic acid 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. USP

- HClO4
- M = 100,46 g/mol
- CAS [7601-90-3]
- EINECS-No.: 231-512-4
- Density: 1,06 g/cm3
- Flash pt. 40 ºC
- Ignition temp.: ~ 485 ºC
- LD 50 (oral, rat): 3310 mg/kg (solvent)
- ADR: 8 CF1 II UN 2789
- IMDG: 8 II UN 2789
- IATA/ICAO: 8 II UN 2789
- GHS-signal word: Danger
- GHS-H sentences: H314 - H226 - H312
- GHS-P sentences: P210 - P303+P361+P353 - P305+P351+P338 - P310 - P370+P378 - P405 - P501a
- Tariff number: 2811 19 80 90
- Applications: laboratory reagent, analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,01005 g HClO4

water (K.F.): 0,1 - 0,2 %

This solution was analyzed using a certified reference material (Potassium Hydrogen Phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Scharlau

Potassium hydroxide, solution 0,1 mol/l (0,1 N), Reag. Ph Eur

- KOH
- M = 56,11 g/mol
- CAS [1310-58-3]
- EINECS-No.: 215-181-3
- Density: 1,01 g/cm3
- Boiling point: ~ 100 °C
- LD 50 (oral, rat): 273 mg/kg (pure substance)
- EC-Index-No.: 019-002-00-8
- ADR: 8 C5 III UN 1814
- IMDG: 8 III UN 1814
- IATA/ICAO: 8 III UN 1814
- GHS-signal word: Warning
- GHS-H sentences: H315 - H319
- GHS-P sentences: P280 - P264 - P305+P351+P338 - P321 - P332+P313 - P337+P313
- Tariff number: 2815 20 90 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,005611 g KOH This solution was analyzed using a certified reference material (Potassium Hydrogen Phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Scharlau

Potassium hydroxide, solution 1 mol/l (1 N), Reag. USP

- KOH
- M = 56,11 g/mol
- CAS [1310-58-3]
- EINECS-No.: 215-181-3
- Density: 1,05 g/cm3
- LD 50 (oral, rat): 273 mg/kg (pure substance)
- EC-Index-No.: 019-002-00-8
- ADR: 8 C5 II UN 1814
- IMDG: 8 II UN 1814
- IATA/ICAO: 8 II UN 1814
- GHS-signal word: Danger
- GHS-H sentences: H314
- GHS-P sentences: P260 - P303+P361+P353 - P305+P351+P338 - P310 - P405 - P501a
- Tariff number: 2815 20 90 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,05611 g KOH This solution was analyzed using a certified reference material (Potassium Hydrogen Phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Potassium permanganate, solution 0,02 mol/l (0,1 N), Reag. Ph Eur

- KMnO4
- M = 158,04 g/mol
- CAS [7722-64-7]
- EINECS-No.: 231-760-3
- Density: 1,01 g/cm3
- EC-Index-No.: 025-002-00-9
- GHS-H sentences: H412
- GHS-P sentences: P273 - P501a
- Tariff number: 2841 61 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,00316 g KMnO4 This solution was analyzed using a certified reference material (Ferrous ethylenediammonium sulfate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 8040 (Sodium Oxalate (Reductometric Standard)).

Silver nitrate, solution 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. ChP

- AgNO3
- M = 169,87 g/mol
- CAS [7761-88-8]
- EINECS-No.: 231-853-9
- Density: 1,01 g/cm3
- LD 50 (oral, rat): 1173 mg/kg (pure substance)
- EC-Index-No.: 047-001-00-2
- ADR: 8 C9 III UN 1760
- IMDG: 8 III UN 1760
- IATA/ICAO: 8 III UN 1760
- GHS-signal word: Warning
- GHS-H sentences: H290 - H315 - H319 - H410
- GHS-P sentences: P280 - P273 - P305+P351+P338 - P321 - P406 - P501a
- Tariff number: 2843 21 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,01699 g AgNO3 This solution was analyzed using a certified reference material (sodium chloride). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 999 (Potassium Chloride Primary Standard).

Sodium hydroxide, solution 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. USP, Reag. ChP

- NaOH
- M = 40,00 g/mol
- CAS [1310-73-2]
- EINECS-No.: 215-185-5
- Density: 1,00 g/cm3
- EC-Index-No.: 011-002-00-6
- Tariff number: 2815 12 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,00400 g NaOH This solution was analyzed using a certified reference material (Potassium Hydrogen Phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Sodium hydroxide, solution 1 mol/l (1 N), Reag. Ph Eur, Reag. USP

- NaOH
- M = 40,00 g/mol
- CAS [1310-73-2]
- EINECS-No.: 215-185-5
- Density: 1,04 g/cm3
- EC-Index-No.: 011-002-00-6
- ADR: 8 C5 II UN 1824
- IMDG: 8 II UN 1824
- IATA/ICAO: 8 II UN 1824
- GHS-signal word: Danger
- GHS-H sentences: H314
- GHS-P sentences: P260 - P303+P361+P353 - P305+P351+P338 - P310 - P405 - P501a
- Tariff number: 2815 12 00 00
- Applications: analytical chemistry, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,0400 g NaOH This solution was analyzed using a certified reference material (Potassium Hydrogen Phthalate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 84 (Potassium Hydrogen Phthalate).

Sodium thiosulfate, solution 0,1 mol/l (0,1 N), Reag. Ph Eur

- $Na_2S_2O_3 \cdot 5H_2O$
- M = 248,18 g/mol
- CAS [10102-17-7]
- EINECS-No.: 231-867-5
- Density: ~ 1,004 g/cm3
- Tariff number: 2832 30 00 00
- Applications: analytical chemistry, titrant in volumetric analysis, reducing agent.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,0248 g $Na_2S_2O_3 \cdot 5H_2O$ This solution was analyzed using a certified reference material (potassium iodate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 136 (Potassium Dichromate (Oxidimetric Standard)).

Scharlau

Sulfuric acid, solution 0,5 mol/l (1 N), Reag. Ph Eur, Reag. USP

Scharlau

Zinc sulfate, solution 0,1 mol/l (0,1 N), Reag. Ph Eur, Reag. ChP

- $ZnSO_4 \cdot 7H_2O$
- M = 287,54 g/mol
- CAS [7446-20-0]
- EINECS-No.: 231-793-3
- Density: 1,01 g/cm3
- EC-Index-No.: 030-006-00-9
- GHS-signal word: Warning
- GHS-H sentences: H319 - H412
- GHS-P sentences: P280 - P273 - P264 - P305+P351+P338 - P337+P313 - P501a
- Tariff number: 2833 29 20 00
- Applications: analytical chemistry, laboratory reagent, titrant in volumetric analysis.

SPECIFICATIONS
factor: 0,999 - 1,001:
uncertainty ± 0,002

This volumetric solution is prepared using gravimetric and volumetric procedures. 1 ml = 0,01614 g $ZnSO_4$ This solution was checked using an EDTA standard solution, that was also analyzed using a certified reference material (calcium carbonate). The certified reference material is ISO 17034 accredited, measured according to ISO/IEC 17025 and traceable to the International System of Units by means of a Standard Reference Material from NIST: SRM® 915 (Calcium Carbonate).

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