



NEW

KJELDAHL

**CHEMICALS AND FLASKS FOR
THE NITROGEN DETERMINATION**

KJELDAHL FLASKS

The bulb-shaped flasks with a long neck are primarily used in the determination of organically bonded nitrogen. Before the actual analysis, the samples are hot-digested in flasks with concentrated sulphuric acid. The LABSOLUTE® Kjeldahl flasks are available in three sizes with beaded rim and without standard ground joint. The neck diameter including rim is around 40 mm for all volumes. The Kjeldahl flasks are made from SIMAX® borosilicate glass 3.3. The glass complies with ISO 3585.

The benefits for you

- Corresponds to the conditions from the European Pharmacopoeia 7 for glass type I
- Three sizes 100, 250 and 500 ml

Volumen	Height	Diameter*	Art. No.
100 ml	200 mm	60 mm	7 690 070
250 ml	270 mm	81 mm	7 690 071
500 ml	300 mm	101 mm	7 690 072

LC = 1X6

* The diameter relates to the "thickest" part of the flask.



CHEMICALS FOR KJELDAHL NITROGEN DETERMINATION

Our CHEMSOLUTE® portfolio offers you a wide range of products for the nitrogen determination method developed by Danish chemist Johan Kjeldahl in 1883.

DIGESTION

Sulphuric acid p.a. (min. 97.0 %)

Based on the very low nitrogen content, ideally suited to nitrogen determination based on the Kjeldahl specifications.

Specifications

- Nitrogen content (N) max. 2 ppm
- Boiling point approx. 335 °C

Quantity	Packaging material	Art. No.
2.5 l	Glass bottle	822.2500

Potassium sulphate p.a. (min. 99.0 %)

Suitable for increasing the boiling point during digestion in the Kjeldahl nitrogen determination method.

Specifications

- Nitrogen content (N) max. 0.0005 %
- Boiling point 1689 °C

Quantity	Packaging material	Art. No.
1 kg	Plastic bottle	1697.1000

Sodium sulphate anhydrous p.a. (min. 98.5 %)

Suitable for increasing the boiling point during digestion in the Kjeldahl nitrogen determination method.

Specifications

- Nitrogen content (N) max. 0.0005 %
- Boiling point 1689 °C

Quantity	Packaging material	Art. No.
1 kg	Plastic bottle	1318.1000
5 kg	Plastic bottle	1318.5000

Additives in tablet form

Potassium or sodium sulphate for reducing the boiling point with catalysts for the Kjeldahl digestion are available from CHEMSOLUTE® as ready-to-use tablets. The corresponding quantities are precisely pre-weighed in the tablets. This avoids sources of error and saves valuable time in everyday laboratory practice. The tablets are manufactured from chemicals in p.a. quality and thoroughly tested.

Description	Quantity/PK	Art. No.
Potassium sulphate 5.0 g	500 tablets 1,000 tablets	1645.0500 1645.1000
Potassium sulphate 5.0 g / Selenium 5.0 mg	500 tablets 1,000 tablets	1641.0500 1641.1000
Potassium sulphate / Selenium (5.0 g in a ratio of 100 / 1)	500 tablets 1,000 tablets	1653.0500 1653.1000
Potassium sulphate 3.5 g / Copper(II) sulphate x 5 H ₂ O 0.1 g	500 tablets 1,000 tablets	1658.0500 1658.1000
Potassium sulphate 5.0 g / Copper(II) sulphate x 5 H ₂ O 0.1 g	500 tablets 1,000 tablets	1643.0500 1643.1000
Potassium sulphate 5.0 g / Copper(II) sulphate x 5 H ₂ O 0.15 g	500 tablets 1,000 tablets	1656.0500 1656.1000
Potassium sulphate 5.0 g / Copper(II) sulphate x 5 H ₂ O 0.5 g	500 tablets 1,000 tablets	1644.0500 1644.1000
Potassium sulphate / Copper sulphate (Missouri)	500 tablets 1,000 tablets	1654.0500 1654.1000
Sodium sulphate 1.0 g	500 tablets 1,000 tablets	1649.0500 1649.1000
Potassium sulphate 1.0 g / Selenium 0.05 g	500 tablets 1,000 tablets	1650.0500 1650.1000
Potassium sulphate 1.0 g / Copper(II) sulphate x 5 H ₂ O 0.1 g	500 tablets 1,000 tablets	1651.0500 1651.1000
Sodium sulphate 1.0 g / Copper(II) sulphate x 5 H ₂ O 0.03 g / Titanium dioxide 0.03 g	500 tablets 1,000 tablets	1652.0500 1652.1000
Sodium sulphate / Copper(II) sulphate x 5 H ₂ O / Selenium (5.0 g in a ratio of 97.5 / 1.5 / 1) (Wieninger)	500 tablets 1,000 tablets	1642.0500 1642.1000
Sodium sulphate 0.97 g / Silicone Antifoam 0.03 g*	500 tablets 1,000 tablets	1640.0500 1640.1000

* For the suppression of foam during distillation

NEUTRALISATION & DISTILLATION

Sodium hydroxide solution p.a. (min. 32.0 %)

Due to the very low nitrogen content, ideally suited to nitrogen determination.

Specifications

- Nitrogen content (N) max. 0.0001 %

Quantity	Packaging material	Art. No.
2.5 l	Plastic bottle	1390.2511
25 l	Plastic canister	1390.9025

Boric acid p.a. (min. 99.5 %)

Quantity	Packaging material	Art. No.
1 kg	Plastic bottle	2563.1000

Boric acid solution 2 %

The boric acid solution is 2 % (± 2 %) and contains no indicator.

Quantity	Packaging material	Art. No.
1 l	Plastic bottle	2544.1000
5 l	Plastic bottle	2544.5000
25 l	Plastic canister	2544.9025

Boric acid solution 4 %

The boric acid solution is 4 % (± 2 %) and contains no indicator.

Quantity	Packaging material	Art. No.
1 l	Plastic bottle	2545.1000
5 l	Plastic bottle	2545.5000
25 l	Plastic canister	2545.9025



TITRATION

Tashiro indicator

Tashiro indicator (Methyl red/ Methylene blue) dissolved in ethanol.

Quantity	Packaging material	Art. No.
250 ml	Plastic bottle	726.0250
500 ml	Glass vial	726.0500
1 l	Glass vial	726.1000

Measure solutions

The CHEMSOLUTE® measure solutions are suitable for producing 1,000 ml of the corresponding acid or alkali in the specified concentration. The volumes are measured exactly and filled into ampoules, avoiding errors and saving valuable time in everyday laboratory practice. The measure solutions are manufactured from chemicals in p.a. quality and thoroughly tested.

Hydrochloric acid measure solutions

Quantity	Packaging material	Art. No.
0.1 mol/l HCl	Polyethylene ampoule	814.0001
0.2 mol/l HCl	Polyethylene ampoule	832.0001
0.5 mol/l HCl	Polyethylene ampoule	835.0001
1.0 mol/l HCl	Polyethylene ampoule	840.0001

Sulphuric acid measure solutions

Quantity	Packaging material	Art. No.
0.05 mol/l H ₂ SO ₄	Polyethylene ampoule	875.0001
0.5 mol/l H ₂ SO ₄	Polyethylene ampoule	895.0001

Sodium hydroxide measure solutions

Quantity	Packaging material	Art. No.
0.01 mol/l NaOH	Polyethylene ampoule	1325.0001
0.1 mol/l NaOH	Polyethylene ampoule	1332.0001
0.5 mol/l NaOH	Polyethylene ampoule	1336.0001
1.0 mol/l NaOH	Polyethylene ampoule	1341.0001





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