

Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Саранск (8342)22-96-24  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97

Тверь (4822)63-31-35  
Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

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# Технические характеристики на каустические щелочи и базы, металлы, наборы для колориметрических и титриметрических тестов

КОМПАНИИ **Sigma-Aldrich**

**Виды товаров:** металлы для фармакопейного анализа, колориметрические и титриметрические тест-наборы, растворы гидроксида, фосфазеновые основания, карбонаты натрия, амиды натрия, гидроксиды натрия и калия, растворы аммиака, каустики и основы для анализа и др.

# Caustic Alkalis & Bases



Life Sciences—with its complex analyses, routine lab work, and production—demands unique and distinct solutions dictated by varied regulations.

Thereby your search for products requires careful consideration of your application and target.

To ease your search, we offer caustic alkalis and bases from three different portfolio brands, dedicated to three distinct types of applications:

- Supelco® products for analytical chemistry,
- Sigma-Aldrich® materials for lab and production,
- SAFC® products for biopharmaceutical and pharmaceutical development and manufacturing

Each brand offers a wide selection of bases and alkalis in a variety of volumes, different packaging materials, and necessary documents. You can search for the bases and alkalis as per the specific requirement of your application.

## HIGH PURITY BASES FOR INSTRUMENTAL ANALYTICAL METHODS

We offer a comprehensive range of **LiChropur® high purity bases for HPLC and LC-MS analysis** to minimize background noise and signal suppression. These bases are application-tested by our quality control to meet our customers' expectations.

Suprapur® and Ultrapur® high-purity bases are designed to accommodate your needs for inorganic trace and ultra-trace analysis. Each one of our analytical reagents is manufactured to clear the guaranteed specifications. The large variety of modern analytical methods (ICP-OES, ICP-MS, AAS, etc.) allow tailored control and analysis procedures for each product.

## CAUSTIC ALKALIS AND BASES FOR CLASSICAL ANALYSIS

Our comprehensive product range includes **EMSURE®** and **EMPLURA® caustic alkalis and bases** in various concentrations, quality grades, and packaging sizes. It includes sodium and potassium hydroxide pellets and their corresponding solutions as well as ammonia solutions to meet your specific needs. With our caustics and bases in your analysis, you get the benefit

of high-purity and batch-to-batch consistency ensuring reliable and reproducible analytical results.

We produce these chemicals in a dedicated plant at Merck KGaA in Darmstadt, Germany, using high-quality raw materials, ultra-modern production technology, and a sophisticated quality management system. This enables us to offer you caustic alkalis and bases of outstanding and defined quality including pellets of uniform size and with extremely low values of impurities.

Caustics and bases for analysis EMSURE® are our premium grade products for all regulated and highly demanding lab applications, featuring the best and most extensive product specifications worldwide. Most of our "for analysis EMSURE®" caustic alkalis and bases meet or exceed the requirements of various international standards such as ACS, ISO, and/or Reag. Ph Eur. Our caustics and bases designated EMPLURA® are ideal for preparative lab applications and cleaning purposes. Their specifications include the most important parameters. And if you have special requests not covered by our standard products, we also offer individual analysis or packaging solutions.

## **QUALITY SALTS FOR RESEARCH AND PRODUCTION**

Our extensive range of Sigma-Aldrich® salts covers the most common grades within research and production, from reagent grade to our innovative **Redi-Dri® anhydrous salts** to 99.99%+ metals tested high purity salts. They are the high-quality and proven standard for quality buffers, chemical synthesis, separation, purification, extraction, and other research and production methods for everyday applications. Scalable from benchtop to bulk production materials, Sigma-Aldrich® provides reliable salts for your everyday needs.

## **BIOPHARMACEUTICAL AND PHARMACEUTICAL FORMULATION AND PRODUCTION PRODUCTS**

In pharmaceuticals, the regulatory world is everchanging. Keeping up with the latest requirements while not losing track of the market itself is definitely not an easy task to fulfill. And as the pressure caused by generics and biosimilars making their way into the market keeps rising, it becomes more and more important to focus on what really matters: quality and the right partner throughout your product journey.

We support you in every step of development, scale-up, and production with services that range from process optimization to regulatory affairs support. Our SAFC® portfolio of high-quality products for biopharmaceutical and pharmaceutical formulation and production withstands strict quality control procedures and is produced according to applicable cGMP guidelines.

As part of our Emprove® Program, our raw materials also come with extensive documentation facilitating compliance of your pharma and biopharma product, full supply chain transparency and risk mitigation.

## **VOLUMETRIC SOLUTIONS FOR TITRATION**

Our Titripur® volumetric solutions and our Titrisol® concentrates offer a range of alkaline solution in different concentrations for quantifying compounds with the titration method. They are produced and analyzed under high-quality standards. The Titripur® solutions are

analyzed by our DIN EN ISO/IEC 17025 accredited quality control lab. An innovation are our digital products with an RFID tag on the bottles to transfer data seamlessly.

277282

**1,1-Dimethylpropylmagnesium chloride solution**

1.0 M in diethyl ether



52586

**1,1,1,3,3,3-Hexakis(dimethylamino)diphosphazanium tetrafluoroborate**

≥98.0% (T)



358754

**1,3,4,6,7,8-Hexahydro-2H-pyrimido[1,2-a]pyrimidine, polymer-bound**

200-400 mesh, extent of labeling: 2.6 mmol/g loading, 2 % cross-linked with divinylbenzene



V900155

**1,4-Diazabicyclo[2.2.2]octane**

Vetec™, reagent grade, 98%



D27802

**1,4-Diazabicyclo[2.2.2]octane**

ReagentPlus®, ≥99%



33471

**1,5-Diazabicyclo[4.3.0]non-5-ene**

purum, ≥98.0% (GC)



136581

**1,5-Diazabicyclo[4.3.0]non-5-ene**

98%



345571

**1,5,7-Triazabicyclo[4.4.0]dec-5-ene**

98%



33482

**1,8-Diazabicyclo[5.4.0]undec-7-ene**

puriss., ≥99.0% (GC)



139009

**1,8-Diazabicyclo[5.4.0]undec-7-ene**

98%



20-160

**1M Tris-HCl, pH 6.5**

1M Tris-HCl, pH 6.5.



20615

**2-tert-Butyl-1,1,3,3-tetramethylguanidine**

≥97.0% (GC)



20025

**2-tert-Butylimino-2-diethylamino-1,3-dimethylperhydro-1,3,2-diazaphosphorine**

purum, ≥98.0% (GC)



550213

**2,2-Dimethylpropylmagnesium chloride solution**

1.0 M in diethyl ether



757969

**2,2-Dimethylpropylmagnesium chloride solution**

1.0 M in THF



115754

**2,2,6,6-Tetramethylpiperidine**

≥99%



L3900

**2,6-Lutidine**

ReagentPlus®, 98%



336106

**2,6-Lutidine**



565881

**2,8,9-Triisobutyl-2,5,8,9-tetraaza-1-phosphabicyclo[3.3.3]undecane**

97%



556955

**2,8,9-Triisopropyl-2,5,8,9-tetraaza-1-phosphabicyclo[3.3.3]undecane**

463558

**2,8,9-Trimethyl-2,5,8,9-tetraaza-1-phosphabicyclo[3.3.3]undecane**



598151

**2,8,9-Trimethyl-2,5,8,9-tetraaza-1-phosphabicyclo[3.3.3]undecane hydrochloride**

96%



107700

**4-(Dimethylamino)pyridine**

ReagentPlus<sup>®</sup>, ≥99%



39405

**4-(Dimethylamino)pyridine**

purum, ≥98.0% (NT)



738700

**4-Piperidinopyridine**

97%



00090

**Acetaldehyde ammonia trimer**

≥96.0% (NT)



09830

**Ammonium bicarbonate**

BioUltra, ≥99.5% (T)



11213

**Ammonium bicarbonate**

puriss., meets analytical specification of Ph.Eur., BP, E 503, 99-101%



11204

**Ammonium carbonate**

puriss., meets analytical specification of NF, Ph. Franc., FCC



207861

**Ammonium carbonate**

ACS reagent, ≥30.0% NH<sub>3</sub> basis



31119-M

**Ammonium sulfate**

puriss. p.a., ACS reagent, reagent ISO, reagent Ph. Eur., ≥99%



202711

**Barium carbonate**

99.999% trace metals basis



329436

**Barium carbonate**

99.98% trace metals basis



237108

**Barium carbonate**

ACS reagent, ≥99%



600202

**Barium carbonate-<sup>13</sup>C**

90 atom % <sup>13</sup>C



277193

**Barium carbonate-<sup>13</sup>C**

98 atom % <sup>13</sup>C



433373

**Barium hydroxide**

technical grade, ~95%



450170

**Barium hydroxide hydrate**

99.995% trace metals basis



342386

**Barium hydroxide monohydrate**

98%



B2507

**Barium hydroxide octahydrate**

≥98%

217573

**Barium hydroxide octahydrate**

ACS reagent, ≥98%



B4059

**Barium hydroxide solution**

0.3 N



246034

**Benzyltrimethylammonium hydroxide solution**

40 wt. % in H<sub>2</sub>O



10317

**Bismuth(III) carbonate basic**

puriss., meets analytical specification of Ph. Eur., 80-82.5% Bi basis (calc. on dried substance)



291005

**Butylmagnesium chloride solution**

2.0 M in THF



224375

**Butylmagnesium chloride solution**

2.0 M in diethyl ether



239232

**Calcium hydroxide**

ACS reagent, ≥95.0%



20960

**Cesium carbonate**

purum p.a., ≥98.0% (T)



554855

**Cesium carbonate**

99.95% trace metals basis



255645

**Cesium carbonate**

99.995% trace metals basis



202126

**Cesium carbonate**

99.9% trace metals basis



441902

**Cesium carbonate**

*ReagentPlus*<sup>®</sup>, 99%



C8518

**Cesium hydroxide hydrate**

≥90%, ≥99.5% (metals basis)



516988

**Cesium hydroxide monohydrate**

99.95% trace metals basis



562505



**Cesium hydroxide monohydrate**

≥99.5% trace metals basis



232068

**Cesium hydroxide solution**

50 wt. % in H<sub>2</sub>O, 99% trace metals basis



232041

**Cesium hydroxide solution**

50 wt. % in H<sub>2</sub>O, 99.9% trace metals basis



292257

**Choline hydroxide solution**

46 wt. % in H<sub>2</sub>O



202193

**Cobalt(II) carbonate hydrate**

Co 43-47 %



207896

**Copper(II) carbonate basic**

reagent grade

36813

**Diethyldimethylammonium hydroxide solution**

~20% in H<sub>2</sub>O (T)



D93856

**Diethylenetriamine**

ReagentPlus<sup>®</sup>, 99%



471208

**Ethylamine solution**

66.0-72.0% in H<sub>2</sub>O



561452

**Ethyllithium solution**

0.5 M in benzene: cyclohexane



189871

**Ethylmagnesium bromide solution**

3.0 M in diethyl ether



345105

**Ethylmagnesium bromide solution**

1.0 M in *tert*-butyl methyl ether



364673

**Ethylmagnesium bromide solution**

1.0 M in THF



303828

**Ethylmagnesium chloride solution**

2.0 M in THF



300330

**Ethylmagnesium chloride solution**

2.0 M in diethyl ether



52387

**Hexadecyltrimethylammonium hydroxide solution**

~25% in methanol (T)



439231

**Hexadecyltrimethylammonium hydroxide solution**

10 wt. % in H<sub>2</sub>O



52605

**Hexamethonium hydroxide solution**

~0.1 M in H<sub>2</sub>O



468568

**Hexyllithium solution**

2.3 M in hexane



255025

**Hexylmagnesium bromide solution**

2.0 M in diethyl ether



641626

**Hexylmagnesium chloride solution**

2.0 M in THF



225819

**Hydrazine hydrate**

reagent grade, N<sub>2</sub>H<sub>4</sub> 50-60 %



445274

**Imino-tris(dimethylamino)phosphorane**

97%



58565

**Isobutyllithium solution**

technical, ~16% in heptane (~1.7 M)



338257

**Isobutylmagnesium bromide solution**

2.0 M in diethyl ether



479683

**Isobutylmagnesium chloride solution**

2.0 M in THF

225746

**Isobutylmagnesium chloride solution**

2.0 M in diethyl ether



529745

**Isopropyllithium solution**

0.7 M in pentane



656984

**Isopropylmagnesium chloride lithium chloride complex solution**

1.3 M in THF



224383

**Isopropylmagnesium chloride solution**

2.0 M in diethyl ether



230111

**Isopropylmagnesium chloride solution**

2.0 M in THF



735353

**Lithium 2,2,6,6-tetramethylpiperidide**

97%



213217

**Lithium amide**

powder, 95%



324620

**Lithium bis(trimethylsilyl)amide**

97%



224367

**Lithium bis(trimethylsilyl)amide solution**

1.0 M in hexanes



577928

**Lithium bis(trimethylsilyl)amide solution**

1 M in toluene



577014

**Lithium bis(trimethylsilyl)amide solution**

1 M in *tert*-butyl methyl ether



225770

**Lithium bis(trimethylsilyl)amide solution**

1.0 M in THF



431559

**Lithium carbonate**

99.99% trace metals basis



62470

**Lithium carbonate**

puriss. p.a., ACS reagent, reagent (for microscopy),  $\geq 99.0\%$  (T)



255823

**Lithium carbonate**

ACS reagent,  $\geq 99.0\%$



301124

**Lithium dicyclohexylamide**

97%



296074

**Lithium diethylamide**

$\geq 95\%$



246611

**Lithium diisopropylamide**

97%



361798

**Lithium diisopropylamide solution**

2.0 M in THF/heptane/ethylbenzene



296066

**Lithium dimethylamide**

95%

909025

**Lithium hydroxide**

free-flowing, Redi-Dri™, powder, reagent grade, ≥98%



545856

**Lithium hydroxide**

powder, reagent grade, ≥98%



442410

**Lithium hydroxide**

reagent grade, 98%



L4533

**Lithium hydroxide monohydrate**

BioXtra, 98.5-101.5% (titration)



402974

**Lithium hydroxide monohydrate**

ACS reagent, ≥98.0%



13020

**Lithium hydroxide monohydrate**

purum, ≥98.5%



62574

**Lithium nitrate**

BioUltra, ≥99.0% (calc. on dried substances, T)



345474

**Lithium trimethylsilanolate**

95%



692352

**Magnesium bis(hexamethyldisilazide)**

97%



63032

**Magnesium carbonate basic**

tested according to Ph. Eur., heavy



13118

**Magnesium carbonate basic**

purum, light, ≥40% Mg (as MgO) basis, powder (light)



63062

**Magnesium carbonate basic**

purum p.a., heavy,  $\geq 40\%$  (MgO)



227668

**Magnesium carbonate hydroxide hydrate**

99%



M5671

**Magnesium carbonate hydroxide pentahydrate**

BioXtra



310093

**Magnesium hydroxide**

reagent grade, 95%



293091

**Methyl-d<sub>3</sub>-magnesium iodide solution**

1.0 M in diethyl ether, 99 atom % D



426466

**Methylamine solution**

40 wt. % in H<sub>2</sub>O



514330

**Methylithium solution**

3.1 M in diethoxymethane



197343

**Methylithium solution**

1.6 M in diethyl ether



302430

**Methylmagnesium bromide solution**

1.0 M in dibutyl ether

282235

**Methylmagnesium bromide solution**

1.4 M in THF: toluene (1:3)



257087

**Methylmagnesium bromide solution**

3.0 M in diethyl ether



189898

**Methylmagnesium bromide solution**

3.0 M in diethyl ether



189901

**Methylmagnesium chloride solution**

3.0 M in THF



254363

**Methylmagnesium iodide solution**

3.0 M in diethyl ether



493813

**Morpholine, polymer-bound**

200-400 mesh, extent of labeling: 2.75-3.25 mmol/g loading, 1 % cross-linked



752142

***n*-Butyl-sec-butylmagnesium solution**

0.7 M in hexane



20159

***n*-Butyllithium solution**

2.7 M in heptane



230715

***n*-Butyllithium solution**

11.0 M in hexanes



230707

***n*-Butyllithium solution**

2.5 M in hexanes



186171

***n*-Butyllithium solution**

1.6 M in hexanes



302120

***n*-Butyllithium solution**

2.0 M in cyclohexane



03440

***N*-Ethyl-diisopropylamine**

BASF quality, ≥98.0%



38431

***N,N*-Diisopropylmethylamine**

≥98.0% (GC)



544183

**Nickel carbonate, basic hydrate**

99.9% trace metals basis



290998

**Pentylmagnesium bromide solution**

2.0 M in diethyl ether



79408

**Phosphazene base P<sub>1</sub>-t-Bu**

≥97.0% (GC)



79432

**Phosphazene base P<sub>1</sub>-t-Bu-tris(tetramethylene)**

≥97.0% (NT)



79412

**Phosphazene base P<sub>1</sub>-t-Oct**

≥97.0%



79417

**Phosphazene base P<sub>2</sub>-Et**

≥98.0% (NT)

494615

**Piperidine, polymer-bound**

extent of labeling: 3.0-4.0 mmol/g loading, 1 % cross-linked with divinylbenzene



12602

**Potassium bicarbonate**

puriss., meets analytical specification of Ph. Eur., BP, USP, E501, 99.5-101.0% (acidimetric)



237205

**Potassium bicarbonate**

ACS reagent, 99.7%, powder, crystals or granules



324671

**Potassium bis(trimethylsilyl)amide**

95%



702722

**Potassium bis(trimethylsilyl)amide solution**

1 M in THF





347825

**Potassium carbonate**

reagent grade,  $\geq 98\%$ , powder, -325 mesh



367877

**Potassium carbonate**

99.995% trace metals basis



60108

**Potassium carbonate**

BioUltra, anhydrous,  $\geq 99.0\%$  (T)



590681

**Potassium carbonate**

anhydrous, powder, 99.99% trace metals basis



60109

**Potassium carbonate**

puriss. p.a., ACS reagent, anhydrous,  $\geq 99.0\%$  (T)



P5833

**Potassium carbonate**

BioXtra,  $\geq 99.0\%$



209619

**Potassium carbonate**

ACS reagent,  $\geq 99.0\%$



791776

**Potassium carbonate**

anhydrous, free-flowing, Redi-Dri™, ACS reagent,  $\geq 99\%$



900502

**Potassium carbonate**

anhydrous, free-flowing, -325 mesh, Redi-Dri™, reagent grade,  $\geq 98\%$



12611

**Potassium carbonate**

meets analytical specification of Ph. Helv., puriss., anhydrous, granulated, 99-101% (calc. to the dried substance)



900501

**Potassium carbonate**

anhydrous, free-flowing, Redi-Dri™, ReagentPlus®, 99%



243558

**Potassium carbonate sesquihydrate**

ACS reagent, 99%



60128

**Potassium chloride**

BioUltra, for molecular biology,  $\geq 99.5\%$  (AT)



484016

**Potassium hydroxide**

reagent grade, 90%, flakes



60377

**Potassium hydroxide**

tested according to Ph. Eur.

484016

**Potassium hydroxide**

reagent grade, 90%, flakes



06103

**Potassium hydroxide**

technical,  $\geq 85\%$ , powder



P1767

**Potassium hydroxide**

$\geq 85\%$  KOH basis, pellets, white



P5958

**Potassium hydroxide**

BioXtra,  $\geq 85\%$  KOH basis



30603

**Potassium hydroxide**

pellets, reag. Ph. Eur.,  $\geq 85\%$



221473

**Potassium hydroxide**

ACS reagent,  $\geq 85\%$ , pellets



306568

**Potassium hydroxide**

semiconductor grade, pellets, 99.99% trace metals basis (Purity excludes sodium content.)



06005

**Potassium hydroxide**

puriss., meets analytical specification of Ph. Eur., BP, 85-100.5%, pellets



417661

**Potassium hydroxide solution**

45 wt. % in H<sub>2</sub>O



324868

**Potassium trimethylsilanolate**

90%, technical grade



224391

**Propylmagnesium chloride solution**

2.0 M in diethyl ether



158496

**Proton-sponge®**

99%



251437

**Rubidium carbonate**

99.8% trace metals basis



289310

**Rubidium carbonate**

99% (trace metals analysis)



401293

**Rubidium hydroxide hydrate**



243892

**Rubidium hydroxide solution**

50 wt. % in H<sub>2</sub>O, 99.9% trace metals basis



195596

**sec-Butyllithium solution**

1.4 M in cyclohexane



224421

**sec-Butylmagnesium chloride solution**

2.0 M in diethyl ether



208329

**Sodium amide**

98%



432504

**Sodium amide**

95%

235083

**Sodium bis(trimethylsilyl)amide**

95%



223484

**Sodium carbonate**

ACS reagent (primary standard), anhydrous, 99.95-100.05% dry basis



S7795

**Sodium carbonate**

BioXtra,  $\geq 99.0\%$



451614

**Sodium carbonate**

anhydrous, powder, 99.999% trace metals basis



222321

**Sodium carbonate**

ACS reagent, anhydrous,  $\geq 99.5\%$ , powder or granules



900505

**Sodium carbonate**

anhydrous, free-flowing, Redi-Dri™, ReagentPlus®,  $\geq 99.5\%$



900504

**Sodium carbonate**

anhydrous, free-flowing, Redi-Dri™, ACS reagent (primary standard), 99.95-100.05% dry basis



13418

**Sodium carbonate**

puriss., meets analytical specification of Ph. Eur., BP, NF, FCC, E500, anhydrous, 99.5-100.5% (calc. to the dried substance)



S2127

**Sodium carbonate**

ReagentPlus®,  $\geq 99.5\%$



791768

**Sodium carbonate**

anhydrous, free-flowing, Redi-Dri™, ACS reagent,  $\geq 99.5\%$



900503

**Sodium carbonate**

anhydrous, powder or granules, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%



223530

**Sodium carbonate**

powder, ≥99.5%, ACS reagent



13418-M

**Sodium carbonate**

puriss., meets analytical specification of Ph. Eur., BP, NF, FCC, E500, anhydrous, 99.5-100.5% (calc. to the dried substance)



577782

**Sodium carbonate decahydrate**

99.999% trace metals basis



71360

**Sodium carbonate decahydrate**

puriss. p.a., ≥99.0% (T)



13568

**Sodium carbonate monohydrate**

puriss., meets analytical specification of Ph. Eur., BP, NF, FCC, E500, 99.5-100.5% (ex dried subst.)



S4132

**Sodium carbonate monohydrate**

ReagentPlus®, ≥99.5%



230952

**Sodium carbonate monohydrate**

ACS reagent, ≥99.5%



71687

**Sodium hydroxide**

BioUltra, for luminescence, ≥98.0% (T), pellets



484024

**Sodium hydroxide**

reagent grade, 97%, flakes

S5881

**Sodium hydroxide**

reagent grade, ≥98%, pellets (anhydrous)



221465

**Sodium hydroxide**

ACS reagent,  $\geq 97.0\%$ , pellets



S8045

**Sodium hydroxide**

BioXtra,  $\geq 98\%$  (acidimetric), pellets (anhydrous)



795429

**Sodium hydroxide**

anhydrous, free-flowing, pellets, Redi-Dri™, ACS reagent,  $\geq 97\%$



71690

**Sodium hydroxide**

puriss. p.a., ACS reagent,  $K \leq 0.02\%$ ,  $\geq 98.0\%$  (T), pellets



655104

**Sodium hydroxide**

reagent grade, 97%, powder



30620

**Sodium hydroxide**

puriss. p.a., ACS reagent, reagent grade, Ph. Eur.,  $K \leq 0.02\%$ ,  $\geq 98\%$ , pellets



306576

**Sodium hydroxide**

pellets, semiconductor grade, 99.99% trace metals basis



06203

**Sodium hydroxide**

puriss., meets analytical specification of Ph. Eur., BP, NF, E524, 98-100.5%, pellets



901915

**Sodium hydroxide**

anhydrous, free-flowing, Redi-Dri™, reagent grade,  $\geq 98\%$ , pellets



367176

**Sodium hydroxide**

beads, 16-60 mesh, reagent grade, 97%



30620-M

**Sodium hydroxide**

puriss. p.a., ACS reagent, reagent grade, Ph. Eur.,  $K \leq 0.02\%$ ,  $\geq 98\%$ , pellets



567530

## Sodium Hydroxide, Pellets



329576

**Sodium trimethylsilanolate**

95%



289833

**Strontium carbonate**

≥98%



472018

**Strontium carbonate**

≥99.9% trace metals basis



204455

**Strontium carbonate**

99.995% trace metals basis



433608

**Strontium hydroxide**

94%



463752

**Strontium hydroxide octahydrate**

99.995% trace metals basis



415219

**Strontium hydroxide octahydrate**

95%

94439

**tert-Butyllithium solution**

1.6-3.2 M in heptane



186198

**tert-Butyllithium solution**

1.7 M in pentane



224499

**tert-Butylmagnesium chloride solution**

2.0 M in diethyl ether



364649

**tert-Butylmagnesium chloride solution**

1.0 M in THF

- 540293  
**Tetraalkylammonium carbonate, polymer-bound**  
macroporous, 40-90 mesh, extent of labeling: 2.5-3.5 mmol/g loading
  
- 540285  
**Tetraalkylammonium carbonate, polymer-bound**  
macroporous, 18-50 mesh, extent of labeling: 2.5-3.5 mmol/g N loading
  
- 86859  
**Tetrabutylammonium hydroxide 30-hydrate**  
≥99.0% (T)
  
- 86866  
**Tetrabutylammonium hydroxide 30-hydrate**  
≥98.0% (T)
  
- 178780  
**Tetrabutylammonium hydroxide solution**  
40 wt. % in H<sub>2</sub>O
  
- 86863  
**Tetrabutylammonium hydroxide solution**  
53.5-56.5% in H<sub>2</sub>O
  
- 86880  
**Tetrabutylammonium hydroxide solution**  
technical, ~40% in H<sub>2</sub>O (~1.5 M)
  
- 438294  
**Tetrabutylphosphonium hydroxide solution**  
40 wt. % in H<sub>2</sub>O
  
- 177806  
**Tetraethylammonium hydroxide solution**  
20 wt. % in H<sub>2</sub>O
  
- 302929  
**Tetraethylammonium hydroxide solution**  
35 wt. % in H<sub>2</sub>O
  
- 87306  
**Tetrahexylammonium hydroxide solution**  
~40% in H<sub>2</sub>O (T)





87741

**Tetramethylammonium hydroxide pentahydrate**

≥95.0% (T)



426318

**Tetramethylammonium hydroxide solution**

ACS reagent



328251

**Tetramethylammonium hydroxide solution**

10 wt. % in H<sub>2</sub>O



331635

**Tetramethylammonium hydroxide solution**

25 wt. % in H<sub>2</sub>O



88005

**Tetrapentylammonium hydroxide solution**

~20% in H<sub>2</sub>O (T)

254533

**Tetrapropylammonium hydroxide solution**

1.0 M in H<sub>2</sub>O



90340

**Triethylamine**

puriss. p.a., ≥99.5% (GC)



16304

**Triethylamine**

purum, ≥99% (GC)



90337

**Triethylamine**

for amino acid analysis, ≥99.5% (GC)



90338

**Triethylamine**

for protein sequence analysis, ampule, ≥99.5% (GC)



79267

**Trimethylphenylammonium hydroxide solution**

~25% in H<sub>2</sub>O (1.68 M)



96466

### Zinc carbonate basic

purum p.a., ≥58% Zn basis (KT)

## Metals



Achieve reliable results with our extensive product line including metals, metal salts, and metal oxides in various grades, that are ideal for a variety of applications in R&D, production, and quality control. With selected raw materials, state-of-the-art production technology, and stringent quality management, we guarantee to deliver premium high purity and quality products for wide analytical applications.

### METALS FOR PHARMACOPOEIA ANALYSIS

We offer selected high-quality metal salts, metals, and noble metals that are suitable for pharmacopoeia analysis and meet or surpass the requirements of international standards such as American Chemical Society (ACS) or European Pharmacopoeia (Reag. Ph Eur). Our high purity metal salts, metals, and noble metals (generally > 99.0%) “for analysis EMSURE®” are specifically tested for trace impurities and packed in different sizes to meet your particular needs.

Every EMSURE® and EMPLURA® product comes with an inclusive certificate of analysis (CoA) and material safety data sheets (MSDS), giving you absolute analytical security. For EMSURE® grade products, we offer even more comprehensive documentation.

L9650

## Lithium chloride

for molecular biology, ≥99%

### PROPERTIES

for molecular biology

**200**

≥99%

powder

605 °C (lit.)

H<sub>2</sub>O: 100 mg/mL at 20 °C, clear, colorless

sulfate (SO<sub>4</sub><sup>2-</sup>): ≤0.01%

Ba: ≤0.003%

Fe: ≤0.001%

K: ≤0.01%  
Na: ≤0.20%  
heavy metals (as Pb): ≤0.002%

DNase, NICKase, RNase, protease, none detected  
[Li+].[Cl-]  
1S/CIH.Li/h1H;/q;+1/p-1  
KWGKDLIKAYFUFQ-UHFFFAOYSA-M

**M2643**

## Magnesium sulfate

**Essential+** Grade

BioReagent, suitable for cell culture, suitable for insect cell culture

### PROPERTIES

<0.01 (vs air)

**200**

<0.1 mmHg ( 20 °C)

BioReagent

powder

cell culture | insect: suitable

cell culture | mammalian: suitable

[Mg++].[O-]S([O-])(=O)=O  
1S/Mg.H2O4S/c;1-5(2,3)4/h;(H2,1,2,3,4)/q+2;/p-2  
CSNNHWWHGAXBCP-UHFFFAOYSA-L

**F8508**

## Iron(III) nitrate nonahydrate

**Essential+** Grade

BioReagent, suitable for cell culture

### PROPERTIES

BioReagent

**200**

98-101%

cell culture | mammalian: suitable

47 °C (lit.)

O.O.O.O.O.O.O.O.O.[Fe+3].[O-][N+](=[O-])=O.[O-][N+](=[O-])=O.[O-][N+](=[O-])=O  
1S/Fe.3NO3.9H2O/c;3\*2-1(3)4;;;;;;;;/h;;;;9\*1H2/q+3;3\*-1;;;;;;;;  
SZQUEWJRBJDHSM-UHFFFAOYSA-N

L4408

# Lithium chloride

BioXtra,  $\geq 99.0\%$  (titration)

## PROPERTIES

BioXtra

**200**

$\geq 99.0\%$  (titration)

powder

$\leq 0.002\%$  Phosphorus (P)

$\leq 0.1\%$  Insoluble matter

605 °C (lit.)

H<sub>2</sub>O: 1 M, clear, colorless

sulfate (SO<sub>4</sub><sup>2-</sup>):  $\leq 0.01\%$

Al:  $\leq 0.0005\%$

Ba:  $\leq 0.002\%$

Ca:  $\leq 0.005\%$

Cu:  $\leq 0.0005\%$

Fe:  $\leq 0.002\%$

K:  $\leq 0.005\%$

Mg:  $\leq 0.005\%$

NH<sub>4</sub><sup>+</sup>:  $\leq 0.1\%$

Na:  $\leq 0.005\%$

Pb:  $\leq 0.001\%$

Zn:  $\leq 0.001\%$

[Li+].[Cl-]

1S/ClH.Li/h1H;/q;+1/p-1

KWGKDLIKAYFUFQ-UHFFFAOYSA-M

L4533

# Lithium hydroxide monohydrate

**Premium Grade**

BioXtra, 98.5-101.5% (titration)

## PROPERTIES

BioXtra

**200**

98.5-101.5% (titration)

$\leq 0.0005\%$  Phosphorus (P)

$\leq 0.1\%$  Insoluble matter

H<sub>2</sub>O: 1 M, clear to slightly hazy, colorless

chloride (Cl<sup>-</sup>): ≤0.05%  
sulfate (SO<sub>4</sub><sup>2-</sup>): ≤0.05%

Al: ≤0.0005%  
Ca: ≤0.005%  
Cu: ≤0.0005%  
Fe: ≤0.0005%  
K: ≤0.005%  
Mg: ≤0.0005%  
NH<sub>4</sub><sup>+</sup>: ≤0.05%  
Na: ≤0.01%  
Pb: ≤0.001%  
Zn: ≤0.0005%

[Li+].O.[OH-]  
1S/Li.2H2O/h;2\*1H2/q+1;;;/p-1  
GLXDVVHUTZTUQK-UHFFFAOYSA-M

**A0843**

## Aluminum sulfate

### PROPERTIES

USP/NF  
meets USP testing specifications

**200**

powder

1.69 g/mL at 25 °C (lit.)

pharmaceutical (small molecule)

[Al+3].[Al+3].[H]O[H].[O-]S([O-])(=O)=O.[O-]S([O-])(=O)=O.[O-]S([O-])(=O)=O

1S/2Al.3H2O4S.H2O/c;;3\*1-5(2,3)4;/h;;3\*(H2,1,2,3,4);1H2/q2\*+3;;;/p-6

BUACSMWVFUNQET-UHFFFAOYSA-H

## Colorimetric & Titrimetric Test Kits



Water testing is important for everyone's good health. Wastewater, industrial water, ground and surface water, seawater, drinking or bottled water, swimming pools, boilers, and coolers,

should all be regularly tested and according to legislation. We offer easy, fast, and direct read-out using color cards, disks or vessels for quick and precise testing from high, to medium, to low concentrations. No special training is required – simply follow the illustrated instructions. Despite their simplicity, rapid visual tests offer unparalleled reliability.

Our visual tests and accessories allow the quick and precise measurement of all major parameters for water analysis on the spot: pH, ammonium, biological oxygen demand (BOD), carbonate, total and residual hardness, nitrate, nitrite, phosphate, and oxygen. Our kits are highly stable and can be stored for up to three years at 15-25 °C. Check your water quality easily! Stay within authorized values or below thresholds with our MQuant® colorimetric and titrimetric tests solutions.

**N7285**

# Ninhydrin Reagent

2% Solution

## DESCRIPTION

## PROPERTIES

**200**

liquid

2-8°C

### Application

Ninhydrin reagent has been used to confirm the presence of the amino acid moieties in various reactions.[1][2]

Ninhydrin reagents can be used in thin layer chromatography (TLC). Ninhydrin reagents have been used to develop and validate a simple, selective, and precise densitometric method for analysis of  $\alpha$ -aminocephalosporins, both in bulk drugs and in formulations. Ninhydrin reagents have also been used to observe differences in the reference ranges of several plasma and urine amino acids between Singaporean and Caucasian populations.

### Biochem/physiol Actions

Ninhydrin is a tricyclic 1,2,3-trione,[3] which functions as an amino acid reagent.[4] It is a vital organic building block,[5] which exposes latent fingerprints on porous surfaces like paper, cardboard and raw wood.[4] Ninhydrin is used to detect primary and secondary amines. It gives a strong blue color with primary amines and a less intense brown-red color with secondary amine.[6]

### Other Notes

Ninhydrin and hydrindantin in DMSO and lithium acetate buffer, pH 5.2

### Caution

Store under nitrogen in the refrigerator after use

Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
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Киров (8332)68-02-04  
Коломна (4966)23-41-49  
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Набережные Челны (8552)20-53-41  
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Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Саранск (8342)22-96-24  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97

Тверь (4822)63-31-35  
Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
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