

# Caustic alkalis and bases for analysis EMSURE®.

High purity and defined quality



# Caustic alkalis and bases for analysis EMSURE.

Caustic alkalis and bases are, along with salts and acids, the most important inorganic chemicals. In order to provide our customers with specified products for all types of wet chemical labs, Merck Millipore produces these chemicals itself using high-quality raw materials.

Merck Millipore's product range for caustic alkalis and bases for analysis includes sodium and potassium hydroxide pellets and the corresponding solutions, as well as ammonia solutions in various concentrations and quality grades.



## Useful information about ... Available concentrations of some bases

Name	Weight %	Density g/cm <sup>3</sup> [20 °C]	Concentration mol/l *
Ammonia solution	32	0.88	16.5
	30	0.9	15.5
	25	0.91	13.5
Potassium hydroxide solution	30	1.48	7
Sodium hydroxide solution	10	1.11	3
	27	1.3	9
	32	1.35	11
	45	1.48	16.5
	50	1.53	19

\* rounded off

# Unique production technique leads to unique quality.

Caustic alkalis and bases are produced in a dedicated plant at Merck KGaA in Darmstadt, Germany. Product-specific production lines anticipate cross-contamination between the different materials. Our unrivaled production techniques and sophisticated quality management system enable us to offer caustic alkalis and bases of outstanding quality. Our products are even qualified for demanding lab applications in regulated markets, such as the pharmaceutical industry. Furthermore, most caustic alkalis and bases for analysis EMSURE® meet or exceed the requirements of international standards such as ACS, ISO and / or Reag. Ph Eur.

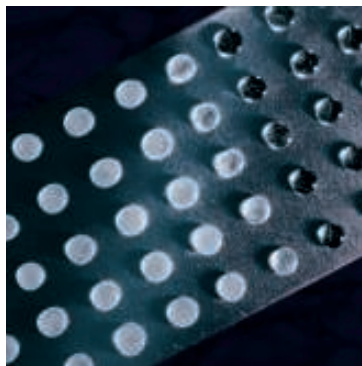
## Our speciality:

### Pellets with very low values of impurities

Thanks to our unique production process and extensive experience, Merck Millipore is able to offer pellets with extremely low values of impurities. Thus, you can expect sodium hydroxide pellets with very low potassium impurities, and potassium hydroxide pellets with equally low sodium impurities. The specified maximum values for potassium and sodium for these products are indicated in the product name as well as in the Certificate of Analysis.

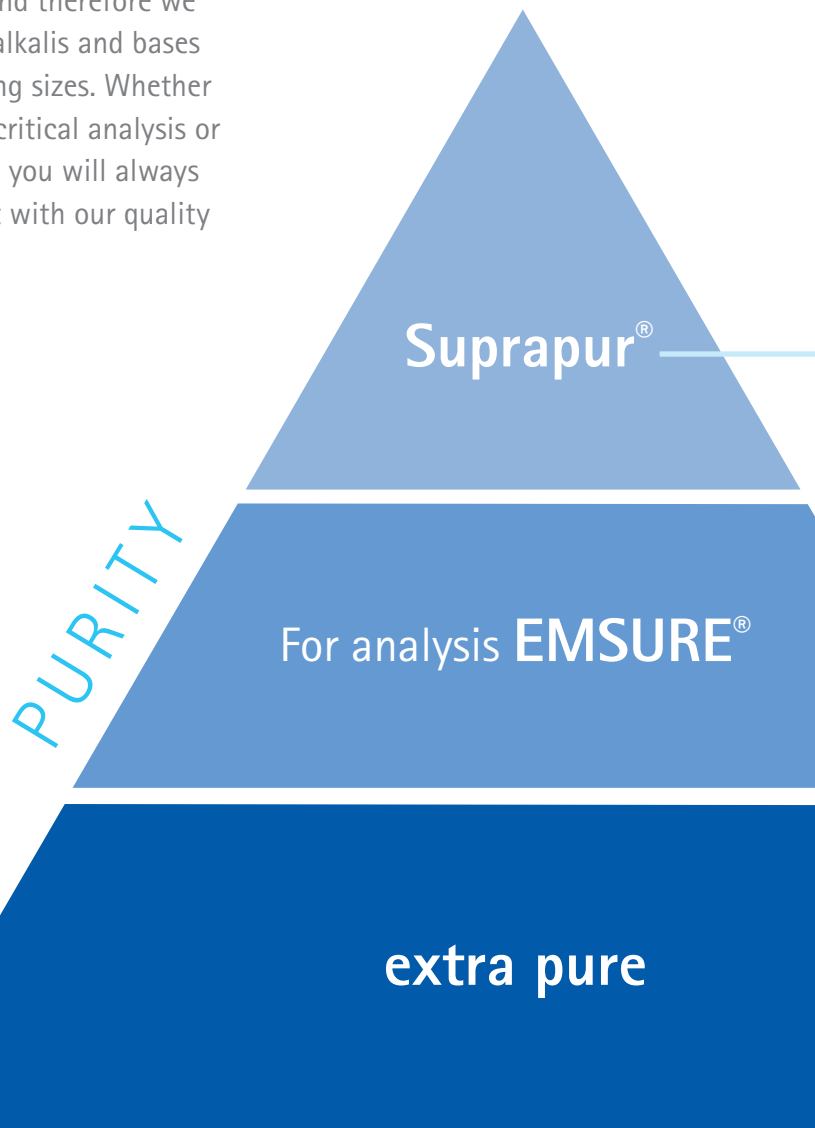
## Benefits

- Comprehensive product range
- Defined outstanding quality for all applications
- High reliability and reproducibility of results through batch-to-batch consistency and extremely low limiting values of impurities
- Most caustic alkalis and bases for analysis EMSURE® meet or exceed the requirements of ACS, ISO and / or Reag. Ph Eur
- Uniform pellets of defined size thanks to unique production technique
- Made using specially selected raw materials
- Complete analysis of each batch with specific data on content or other limits provided in the Certificate of Analysis
- Sophisticated quality management system with audits, thus comprehensively certificated data
- Fulfill individual customer requests



# The ideal quality grade for each application.

Each application is different and therefore we offer a wide range of caustic alkalis and bases in various grades and packaging sizes. Whether you need to perform a highly critical analysis or prepare basic lab applications, you will always find the most suitable reagent with our quality grades and brand names.



## Specifications

ACS	Standards of the American Chemical Society
ISO	Standards of the International Organization for Standardization
Reag. Ph Eur	Reagents specified by the European Pharmacopoeia



### Suprapur® caustics and bases

- Suprapur® reagents are ideal for digestion in trace analysis. They have extremely low contents of all cations

### Caustics and bases for analysis EMSURE® ACS, ISO, Reag. Ph Eur

- Our premium grade for all regulated and highly demanding lab applications
- Worldwide best and most extensive product specifications
- Widest range of pack sizes

#### Uses:

- For sample preparation
- As neutralization and digestion agents
- For the production of alkaline salts
- For the production of buffer solutions
- For the regeneration of anionic ion exchangers
- For use in refining and precipitation processes
- As alkaline cleansing agents

### Caustics and bases extra pure

- For preparative lab applications and cleaning purposes
- Specifications with the most important parameters
- Available in different pack sizes

#### Uses:

- For the production of sodium and potassium hydroxide solutions
- For adjusting the pH of liquids
- As alkaline cleansing agents
- As neutralization agents for acids

# Ordering information.

## Caustics and bases for analysis EMSURE®.

Product	Content	Packaging	Catalogue No.
<b>Pellets</b>			
Potassium hydroxide pellets for analysis EMSURE®	500 g	Plastic bottle	1.05033.0500
	1 kg	Plastic bottle	1.05033.1000
	5 kg	Plastic bottle	1.05033.5000
	25 kg	Fibre carton	1.05033.9025
	50 kg	Fibre carton	1.05033.9050
Potassium hydroxide pellets (max. 0.002 % Na) for analysis EMSURE® ACS, ISO, Reag. Ph Eur	250 g	Plastic bottle	1.05021.0250
	1 kg	Plastic bottle	1.05021.1000
	5 kg	Plastic bottle	1.05021.5000
	25 kg	Fibre carton	1.05021.9025
Potassium hydroxide pellets (max. 0.05 % Na) for analysis EMSURE® ACS, Reag. Ph Eur	1 kg	Plastic bottle	1.05029.1000
	50 kg	Fibre carton	1.05029.9050
Sodium hydroxide pellets for analysis EMSURE® ISO	500 g	Plastic bottle	1.06498.0500
	1 kg	Plastic bottle	1.06498.1000
	5 kg	Plastic bottle	1.06498.5000
	25 kg	Fibre carton	1.06498.9025
	50 kg	Fibre carton	1.06498.9050
Sodium hydroxide pellets (max. 0.0002 % K) for analysis EMSURE® ACS, Reag. Ph Eur	250 g	Plastic bottle	1.06495.0250
	1 kg	Plastic bottle	1.06495.1000
	5 kg	Plastic bottle	1.06495.5000
Sodium hydroxide pellets (max. 0.02 % K) for analysis EMSURE® ACS, Reag. Ph Eur	1 kg	Plastic bottle	1.06469.1000
	5 kg	Plastic bottle	1.06469.5000
	50 kg	Fibre carton	1.06469.9050



Product	Content	Packaging	Catalogue No.
<b>Solutions</b>			
Ammonia solution 25 % for analysis EMSURE®	1 l	Glass bottle	1.05432.1000
	1 l	Plastic bottle	1.05432.1011
	2.5 l	Glass bottle	1.05432.2500
	5 l	Plastic bottle	1.05432.5000
	25 l	Plastic container	1.05432.9025
Ammonia solution 28-30 % for analysis EMSURE® ACS, Reag. Ph Eur	1 l	Glass bottle	1.05423.1000
	2.5 l	Glass bottle	1.05423.2500
	25 l	Plastic container	1.05423.9025
Ammonia solution 32 % extra pure	1 l	Glass bottle	1.05426.1000
	2.5 l	Glass bottle	1.05426.2500
Potassium hydroxide solution 47 % for analysis EMSURE®	1 l	Plastic bottle	1.05545.1000
	25 l	Plastic container	1.05545.9025
Sodium hydroxide solution min. 10 % (1.11) for analysis EMSURE®	1 l	Plastic bottle	1.05588.1000
	10 l	Plastic container	1.05588.9010
Sodium hydroxide solution min. 27 % (1.30) (for the determination of nitrogen) for analysis EMSURE®	2.5 l	Plastic bottle	1.05591.2500
	25 l	Plastic container	1.05591.9025
Sodium hydroxide solution about 32 % extra pure	2.5 l	Plastic bottle	1.05587.2500
	5 l	Plastic bottle	1.05587.5000
	25 l	Plastic container	1.05587.9025
	200 l	Plastic barrel	1.05587.9200
Sodium hydroxide solution about 32 % (for the determination of nitrogen) for analysis EMSURE®	2.5 l	Plastic bottle	1.05590.2500
	25 l	Plastic container	1.05590.9025
Sodium hydroxide solution min. 45 % for analysis EMSURE®	2.5 l	Plastic bottle	1.11360.2500
	25 l	Plastic container	1.11360.9025
Sodium hydroxide solution 50 % for analysis EMSURE®	1 l	Plastic bottle	1.58793.1000
	25 l	Plastic container	1.58793.9025







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