

# CAUSTIC SODA LYE

ME Type

Last revision 2008

**Chemical Name:** Molecular formula: NaOH  
 NO.CAS 1310-73-2  
 Abbreviation: Caustic Soda

## General Description:

Caustic soda lye (sodium hydroxide solution) is manufactured by the electrolysis of brine using membrane technology.

Sodium hydroxide is a colorless, odorless and crystalline substance that readily absorbs carbon dioxide and moisture from the air. The product is very soluble in water, alcohol and glycerin, and is caustic.

Sodium hydroxide is a strong electrolyte, being completely ionized in solution state. It is a stable product when stored under normal conditions of pressure and temperature, in tightly closed tank cars or containers.

## Technical Quality Conditions:

Characteristics	MU	Values	Testing methods
Appearance	-	clear liquid, free of mechanical impurities	visual
Sodium hydroxide (NaOH), min.	%	48	STAS 3068
Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> ), max.	%	0.25	STAS 3068
Sodium chloride (NaCl), max	%	0.01	ASTM E 291
Iron oxides (Fe <sub>2</sub> O <sub>3</sub> ), max.	%	0.001	STAS 3068

## Specific Properties:

pH	strongly alkaline
Boiling point	145°C
Ignition temperature	not ignitable
Density at 25°C	1.53

*The specific properties present approximate values and contain general information, without being part of the technical quality conditions.*

## Main Applications:

- pulp and paper industry;
- textiles industry;
- soap and detergents industry;
- petrochemical industry
- alumina industry
- oil industry
- wood chemical treatment;
- chemical industry (dyestuff, phenol, phosphates, sodium hypochlorite);
- pharmaceutical industry;
- water treatment;
- food industry.



## Shipping Information:

- stainless steel / coated tank cars or containers of 20 or 40 tons, equipped with heating coils;
- non-returnable steel drums.

## Storage:

Caustic soda lye should be stored at temperatures between 85° to 100°F (29° to 38°C). For storage below 120°F (49°C) temperature, the product needs to be stored in mild steel, butt-welded tanks. High temperature alarms should be included.

Tanks and pipes should be insulated and traced to prevent the caustic soda solution from freezing.

## Safety Considerations:

Please refer to the product Material Safety Data Sheet (MSDS) offering customers help to better satisfy their particular handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations.

## Warning:

Caustic soda solution is highly corrosive hazardous product. Avoid body contact. It is dangerous to eyes and skin. Destroys skin tissues and causes severe chemical burns. Inhalation can cause serious injury to respiratory tract. Ingestion can injure the digestive system.

The viscosity of 50% caustic soda solution increases rapidly when its temperature falls below 65°F (16°C).

## Attention:

Information contained in this document is provided to the best of our knowledge and experience.

Please contact OLTCHIM to see if the document has been revised.

## Important:

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.