



**MAINCHIN**  
Chemicals for all




## Caustic Soda (Sodium Hydroxide)

Caustic soda is one of the common names for sodium hydroxide, also known as lye, is an inorganic compound with the formula NaOH. It is a white solid ionic compound consisting of sodium cations  $\text{Na}^+$  and hydroxide anions  $\text{OH}^-$ . Its common name derives from its chemical identity as a sodium hydrate and because it is caustic or corrosive. In pure form, caustic soda is a waxy, white solid. It readily absorbs water and forms aqueous solutions. Commercially available caustic soda or sodium hydroxide is usually sodium hydroxide monohydrate,  $\text{NaOH}\cdot\text{H}_2\text{O}$ .

Sodium hydroxide is a highly caustic base and alkali that decomposes proteins at ordinary ambient temperatures and may cause severe chemical burns. It is highly soluble in water, and readily absorbs moisture and carbon dioxide from the air. It forms a series of hydrates  $\text{NaOH}\cdot n\text{H}_2\text{O}$ . The monohydrate  $\text{NaOH}\cdot\text{H}_2\text{O}$  crystallizes from water solutions between 12.3 and 61.8 °C. The commercially available "sodium hydroxide" is often this monohydrate, and published data may refer to it instead of the anhydrous compound.

Chemical Name : Sodium Hydroxide  
Trade Name : Caustics Soda, Caustic Soda Flakes, Caustic Soda Pearl, Caustics Soda Lye, Lye, Sodium Hydrate, White Caustic  
Chemical Formula : NaOH  
CAS Registry Number : 1310-73-2  
EINECS Number : 215-185-5  
HS Code (4 Digit) : 2815

### Caustic Soda

-  Caustic Soda Flakes
-  Caustic Soda Pearls
-  Caustic Soda Liquid (Lye)



MAINCHIN  
Caustic Soda



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## Caustic Soda Flakes

SN	PROPERTIES	UNIT	LIMITS
1	Sodium Hydroxide (as NaOH) Dry Basis	%	99.50 Min
2	Sodium Carbonates (as Na <sub>2</sub> CO <sub>3</sub> )	%	00.40 Max
3	Chloride (as Cl <sup>-</sup> )	%	0.03
4	Iron (as Fe <sup>***</sup> )	Ppm	20.00 Max



## Caustic Soda Pearls (NaOH)

NO	PROPERTIES	UNIT	LIMITS
1	Sodium Hydroxide (as NaOH) on dry basis	%	99.40 min
2	Sodium Carbonate (as Na <sub>2</sub> CO <sub>1</sub> )	%	0.60 max
3	Chloride (as NaCl)	%	0.02 max
4	Iron (as Fe <sup>***</sup> )	%	10.00 max
5	Nickle (as Ni)	ppm	5.00 max
6	Particle Size (nominal)	Mm	0.7 to 1.1



## Caustic Soda Lye (NaOH)

NO	PROPERTIES	UNIT	LIMITS
1	Sodium Hydroxide (as NaOH)	%	47.00 min
2	Sodium Carbonate (as Na <sub>2</sub> CO <sub>1</sub> )	%	00.40 max
3	Chloride (as CT)	%	0.015 max
4	Iron (as Fe <sup>***</sup> ) on 100% basis	%	20.00 max



### Packing

Caustic Soda Flake – 25 / 50 Kg HDPE bags with inner HM-HDPE liner

Caustic Soda Pearl – 25 / 50 Kg HDPE bags with heat / sealed packaging film



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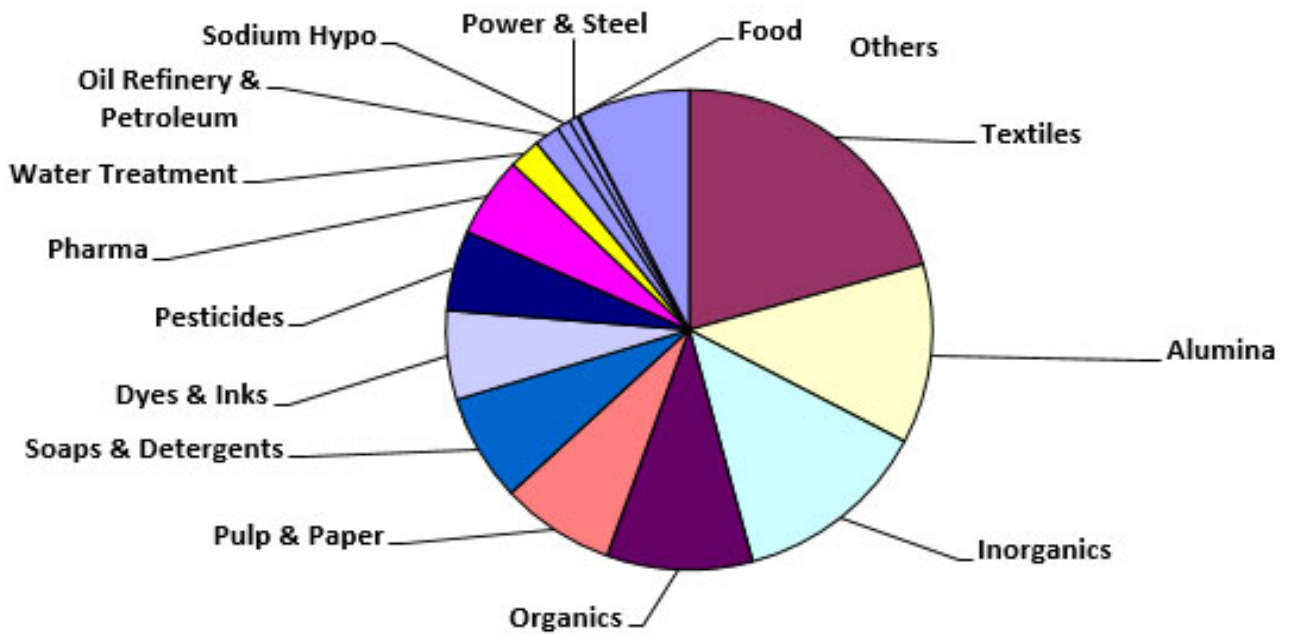
Caustic Soda Lye (Liquid) – canned or drum or tanker



## Application & Uses

Caustic Soda or Sodium Hydroxide is used in many industries like

- Paper and Pulp
- Textiles and Rayons
- Soaps and Detergents
- Aluminium
- Oils Refineries and Petroleum
- Power and Energy
- Iron and Steel
- Glass and Ceramics
- Food
- Pesticides
- Water Treatment (Drinking) and Drain Cleaning
- Explosives
- Dyes and Inks and Paints and Epoxy Resins
- Chemicals – Organic and Inorganic



\*Some miscellaneous caustic soda usage sectors have been merged with major categories like DM Water (Water Treatment), Vanaspati (Food), Brine Treatment (Inorganics) and Iron & Steel (Others)

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### **Cleaning & Disinfectant Products**

Sodium hydroxide is used to manufacture soaps and a variety of detergents used in homes and commercial applications. Chlorine bleach is produced by combining chlorine and sodium hydroxide. Drain cleaners that contain sodium hydroxide convert fats and grease that can clog pipes into soap, which dissolves in water.

### **Pharmaceuticals & Medicine & Drugs**

Sodium hydroxide is used to help manufacture a variety of medicines and pharmaceutical products, from common pain relievers like aspirin, to anticoagulants that can help to prevent blood clots, to cholesterol-reducing medications.

### **Energy**

In the energy sector, sodium hydroxide is used in fuel cell production. Fuel cells work like batteries to cleanly and efficiently produce electricity for a range of applications, including transportation; materials handling; and stationary, portable and emergency backup power applications. Epoxy resins, manufactured with sodium hydroxide, are used in wind turbines.

### **Water Treatment**

Municipal water treatment facilities use sodium hydroxide to control water acidity and to help remove heavy metals from water. Sodium hydroxide is also used to produce sodium hypochlorite, a water disinfectant.

### **Food Production**

Sodium hydroxide is used in several food processing applications, such as curing foods like olives or helping to brown Bavarian-style pretzels, giving them their characteristic crunch. Sodium hydroxide is used to remove skins from tomatoes, potatoes and other fruits and vegetables for canning and also as an ingredient in food preservatives that help prevent mold and bacteria from growing in food.

### **Wood & Paper Products**

In many paper making processes, wood is treated with a solution containing sodium sulphide and sodium hydroxide. This helps dissolve most of the unwanted material in the wood, leaving relatively pure cellulose, which forms the basis of paper. In the paper recycling process, sodium hydroxide is used to separate the ink from the paper fibres allowing the paper fiber's to be reused again. Sodium hydroxide is also used to refine raw materials for wood products such as cabinets and furniture and in wood bleaching and cleaning.

### **Aluminium Ore Processing**

Sodium hydroxide is used to extract alumina from naturally occurring minerals. Alumina is used to make aluminium and a variety of products including foil, cans, kitchen utensils, beer kegs and airplane parts. In building and construction, aluminium is used in materials that enable building facades and window frames.

For more information and order, please send us email to [caustic.soda@mainchingroup.com](mailto:caustic.soda@mainchingroup.com) and visit our websites <https://mainchingroup.com/products/>

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