

# Caustic Soda

## DESCRIPTION

DCW produces Caustic Soda by electrolysis of industrial grade salt using environmentally friendly Membrane Cell technology.

The main Raw materials are in house produced Salt & Power.

## CHEMICAL NAME & FORMULA

Sodium Hydroxide  
NaOH

## INPUT

Salt

## CHEMICAL FORMATION

Aqueous Solution, Solid and Flakes.

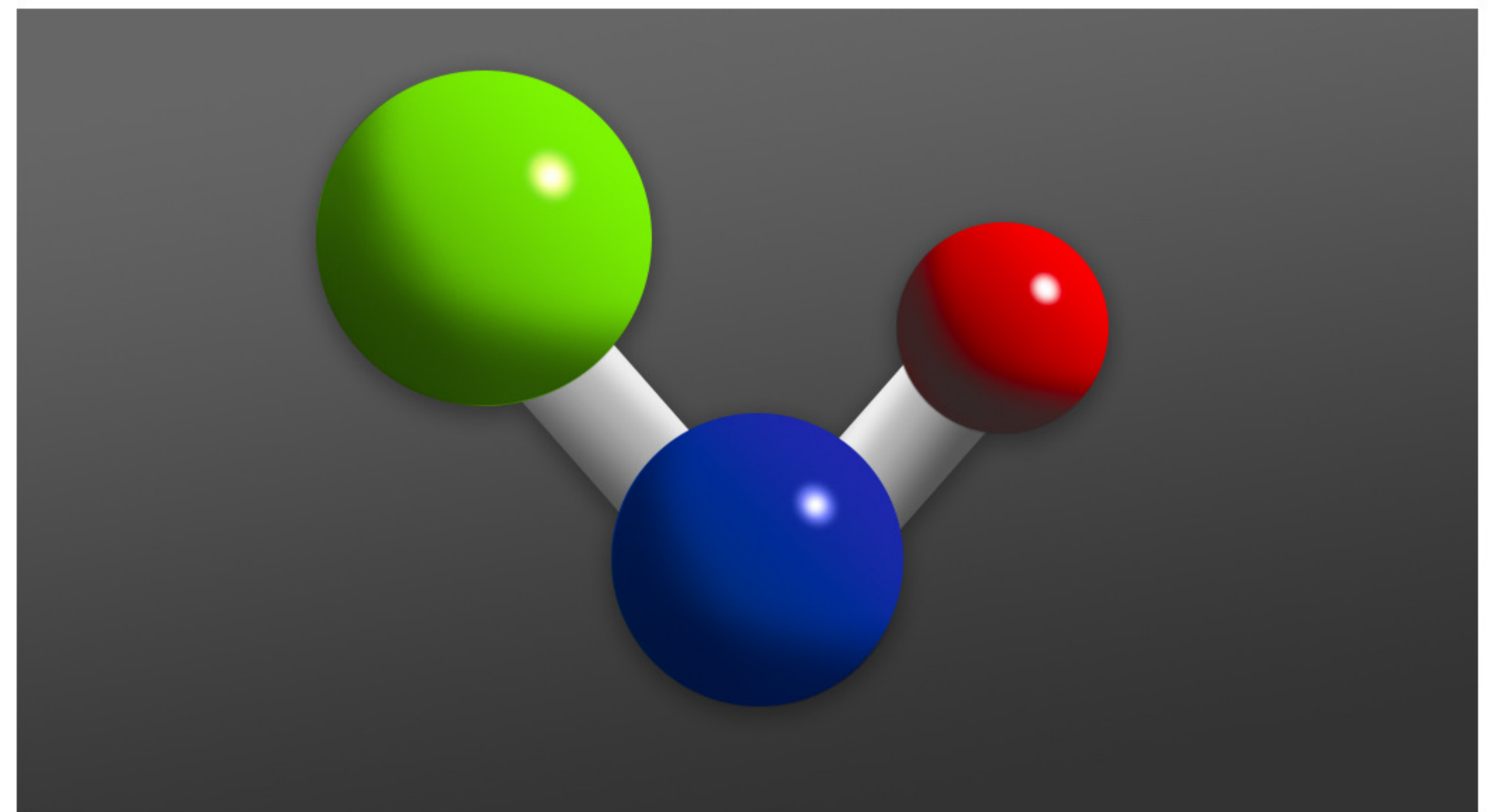
## OUTPUT

Caustic Soda Lye,  
Caustic Soda Flakes

## APPLICATIONS

Its main uses are in the manufacture of pulp and paper, alumina, soap and detergents, petroleum products and chemical production.

Other applications include water treatment, food, textiles, metal processing, mining, glass making and others.



## Product Properties

Description	Caustic Soda Lye	Caustic Soda Flakes	Caustic Soda Solid
<b>Appearance</b>	Colourless Liquid	White Flakes	White Solid Block
<b>Corrosive</b>	Yes	Yes	Yes
<b>Flammability</b>	Not Flammable	Not Flammable	Not Flammable
<b>Solubility</b>	Soluble	Soluble	Soluble
<b>Boiling Point</b>	143°C	1,390°C	1,390°C
<b>Melting / Freezing Point</b>	12°C	318.4°C	318.4°C
<b>Specific Gravity</b>	1.51 at 25°C	2.12 at 24°C	2.12 at 24°C
<b>Reactivity</b>	<ul style="list-style-type: none"> <li>Reacts violently with acids</li> <li>Reacts with ammonium salts evolving ammonia gas</li> </ul>	<ul style="list-style-type: none"> <li>Reacts violently with acids</li> <li>Reacts with ammonium salts evolving ammonia gas</li> </ul>	<ul style="list-style-type: none"> <li>Reacts violently with acids</li> <li>Reacts with ammonium salts evolving ammonia gas</li> </ul>

## Product Specifications (Results on dry basis as per IS:252-2013)

Characteristics	Caustic Lye	Flakes	Solids
<b>Sodium Hydroxide (as NaOH) % by mass</b>	47.00 min. 48.00 min. (firm concentration)	97.00 min.	97.00 min.
<b>Sodium Hydroxide (as NaOH) % by mass on dry basis</b>	99.50 min.	99.50 min.	99.50 min.
<b>Carbonates (as Na<sub>2</sub>CO<sub>3</sub>) % by mass</b>	0.20 max.	0.40 max.	0.40 max.
<b>Chlorides (as Cl<sup>-</sup>) % by mass</b>	0.015 max.	0.03 max.	0.03 max.
<b>Sulphates (as SO<sub>4</sub>) % by mass</b>	0.015 max.	0.03 max.	0.03 max.
<b>Silicates (as SiO<sub>2</sub>) % by mass</b>	0.01 max.	0.02 max.	0.02 max.
<b>Iron (as Fe) ppm</b>	10 max.	20 max.	60 max.
<b>Copper (as Cu) ppm</b>	1 max.	2 max.	2 max.
<b>Manganese (as Mn) ppm</b>	0.5 max.	1 max.	1 max.
<b>Chlorates &amp; Perchlorates (as NaClO<sub>3</sub>) ppm</b>	40 max.	10 max.	10 max.
<b>Matter insoluble in water % by mass</b>	0.025 max.	0.05 max.	0.05 max.
<b>Mercury (as Hg) ppm</b>	0.01 max.	0.02 max.	0.02 max.

## Related Information

### PACKAGING & HANDLING

Caustic soda Lye stored and transported in tanks and tanker trucks. Caustic Soda flakes packed in 50 kg and 25 kg net HDPE Bags lined with HMHDPE liner and Caustic Solid in 375kg net MS Drums. Keep in a cool dry and ventilated place.

### TRANSPORT CLASSIFICATION

U.N. No. 1823 / 1824  
 IMCO Class 8  
 CAS No. 1310-73-2  
 IMDG Page 8225 & 8226

### PRODUCT USAGES

Aluminium, Rayon, Paper, Soap, Vanaspathi, Petroleum, Textile and Dyes industries.



## Product Safety Data

<b>Name of Product</b>	Caustic Soda Lye / Flakes / Solid
<b>Chloride (as NaCl)</b>	Sodium Hydroxide & Sodium Carbonate
<b>Hazards Identification</b>	Corrosive. Class 8
<b>First Aid Measures</b>	<b>If eyes</b> are affected, flush with plenty of water for 15 minutes. <b>Skin</b> - Remove contaminated clothes and shoes. Wash affected areas with plenty of water. <b>If inhaled</b> , move victim to fresh air areas. Support respiration and seek medical aid immediately for all types of exposures.
<b>Measures For Fire Fighting</b>	Not Flammable
<b>First Aid Measures In Case Of Unintentional Release</b>	Avoid contact with Solid or Liquid. Provide side-covered safety goggles, face shield, rubber shoes and rubber hand gloves.
<b>Handling &amp; Storage</b>	Keep in cool, dry and well-ventilated place.
<b>Exposure Limit &amp; Staff Protection Equipment</b>	Provide side-covered safety goggles, face shield, rubber shoes and rubber hand gloves.
<b>Physical &amp; Chemical Properties</b>	White deliquescent pieces. Absorbs water and carbon dioxide from the air. Handle with care ; destroys organic tissue. <b>Sp Gravity : 2.12, Melting Point : 318.4°C, Boiling Point : 1390°C.</b> <b>Soluble in water, Alcohol &amp; Glycerol.</b>
<b>Stability &amp; Reactivity</b>	Chemically Stable, Vigorous with Organic Halides, Metals and Nitro-Compounds.
<b>Information Of Toxicology</b>	Emits Toxic Fumes while on reaction
<b>Information About Ecology</b>	Eco-friendly
<b>Information About Waste Disposal</b>	Seal all waste in vapour-tight plastic bags for eventual disposal.
<b>Information About Transport</b>	Caustic Soda Lye is transported in tanks and tank trucks. Flakes packed in HDPE bags and Solid packed in non-returnable M.S. Drums, transportable by road in trucks.
<b>Statutory Regulatory Information</b>	Shipping Name: Sodium Hydroxide Solution / Solid. Hazchem Code 2 R Codes / Label Corrosive, Class 8
<b>Other Information</b>	Chemical Name: Sodium Hydroxide Trade Name: Caustic Soda, Storage Category A, Packing Group II, U.N. No.1823/24, IMDG Page: 8225/26, MFAF Table No. 705 C.A.S. No. 1310-73-2 EMS No. 8.06