

MATERIAL SAFETY DATA SHEET

Caustic Soda Lye (CSL)

MSDS Name:	Caustic Soda Lye (CSL), 50 wt% solution in water
Synonyms:	Caustic Soda Lye (CSL)

Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
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Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
1310-73-2	Caustic Soda Lye (CSL)	50	215-185-5	C	35
7732-18-5	Water	50	231-791-2		

Text for R-phrases: see Section 16

Hazard Symbols:	C
	
Risk Phrases:	35

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Causes severe burns.

Potential Health Effects

Eye:	Causes severe eye burns.
Skin:	Causes skin burns. May cause deep, penetrating ulcers of the skin.
Ingestion:	Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.
Inhalation:	Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract.
Chronic:	Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.
Ingestion:	Do not induce vomiting. Get medical aid immediately.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. May react with metals and lead to the formation of flammable hydrogen gas.
Extinguishing Media:	Use foam, dry chemical, or carbon dioxide.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Use with adequate ventilation. Do not allow water to get into the container because of violent reaction. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.
Storage:	Store in a cool, dry place. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:	
	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits	
	CAS# 1310-73-2:
	United Kingdom, WEL - STEL: 2 mg/m ³ STEL
	United States OSHA: 2 mg/m ³ TWA
	Belgium - TWA: 2 mg/m ³ VLE
	France - VME: 2 mg/m ³ VME
	Germany: 2 mg/m ³ TWA (inhalable fraction)
	Japan: 2 mg/m ³ Ceiling
	Malaysia: 2 mg/m ³ Ceiling
	Spain: 2 mg/m ³ VLA-EC
	CAS# 7732-18-5:

Personal Protective Equipment

Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Viscous liquid
Color:	clear colorless
Odor:	Not available
pH:	>13
Vapor Pressure:	Not available
Viscosity:	Not available
Boiling Point:	145 deg C (293.00°F)
Freezing/Melting Point:	12 deg C (53.60°F)
Autoignition Temperature:	Not available
Flash Point:	Not available
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	0.935
Molecular Formula:	NaOH
Molecular Weight:	40

Section 10 - Stability and Reactivity

Chemical Stability:	Stable at room temperature in closed containers under normal storage and handling conditions. Absorbs carbon dioxide from the air.
Conditions to Avoid:	Incompatible materials, exposure to air.
Incompatibilities with Other Materials	Water, acids, aluminum, chlorinated solvents, copper, copper alloys, magnesium, phosphorus, zinc, tin, organic materials.
Hazardous Decomposition Products	Sodium oxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 1310-73-2: WB4900000 CAS# 7732-18-5: ZC0110000
LD50/LC50:	RTECS: CAS# 1310-73-2: Draize test, rabbit, eye: 400 ug Mild; Draize test, rabbit, eye: 1% Severe; Draize test, rabbit, eye: 50 ug/24H Severe; Draize test, rabbit, eye: 1 mg/24H Severe; Draize test, rabbit, skin: 500 mg/24H Severe; RTECS: CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg; Other:
Carcinogenicity:	Sodium hydroxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 13 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION
Hazard Class:	8	8	8
UN Number:	1824	1824	1824
Packing Group:	II	II	II

USA RQ: CAS# 1310-73-2: 1000 lb final RQ; 454 kg final RQ

Section 14 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

- R 35 Causes severe burns.

Safety Phrases:

- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 37/39 Wear suitable gloves and eye/face protection.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

- CAS# 1310-73-2: 1
- CAS# 7732-18-5: Not available

Canada

- CAS# 1310-73-2 is listed on Canada's DSL List
- CAS# 7732-18-5 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 1310-73-2 is listed on the TSCA Inventory.
- CAS# 7732-18-5 is listed on the TSCA Inventory.

Section 15 - Other Information

Text for R-phrases from Section 2

- R 35 causes severe burns.

MSDS Creation Date: July 23, 2015

Revision #1 Date

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