

## 1. IDENTIFICATION

**Trade Name:** LC-25 Liquid Caustic Soda 25%

**Chemical Name & Synonyms:** Sodium Hydroxide; Caustic; Caustic Soda; Lye; Sodium Hydrate

**UN/ID No:** UN1824

## 2. Hazards Identification

**Classification:** Corrosive

**Signal Word:** Danger

### Hazard Statements:

- Harmful if swallowed
- Causes severe skin burns and eye damage
- Causes damage to organs

### GHS – Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Category 1A
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (one exposure)	Category 1

### Physical Hazards

Corrosive to metals	Category 1
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### Precautionary Statements:

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P330 - Rinse mouth  
P307 + P311 - IF exposed: Call a POISON CENTER or doctor/physician  
P310 - Immediately call a POISON CENTER or doctor/physician  
P334 - Immerse in cool water/wrap in wet bandages P405 - Store locked up  
P363 - Wash contaminated clothing before reuse  
P390 - Absorb spillage to prevent material damage  
P406 - Store in corrosive resistant container with a resistant liner  
P501 - Dispose of contents/ container to an approved waste disposal plant



### 3. Composition / Information on Ingredients

Chemical Name	CAS No	Weight-%	EC No
Caustic Soda	1310-73-2	25%	215-185-5
Sodium Chloride	7647-14-5	<1%	231-598-3
Sodium Carbonate	0497-19-8	<0.2%	207-838-8

### 4. First Aid Measures

**General Advice:** Immediate medical attention is required.

**Eye Contact:** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

**Skin Contact:** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation:** Move to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion:** Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

**Note to Physicians:**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

**Self-protection of the First Aider:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

### 5. Fire-fighting Measures

**Flammable Properties:**

Non-flammable, but may cause fire due to heat of decomposition reaction

**Explosive Properties:**

No information available

**Suitable Extinguishing Media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Unsuitable Extinguishing Media:**

No information available

**Specific Hazards Arising from the Chemical:**

The product causes burns of eyes, skin and mucous membranes; Thermal decomposition can lead to release of irritating and toxic gases and vapors; In the event of fire and/or explosion do not breathe fumes

**Protective Equipment and Precautions for Firefighters:**

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

**6. Accidental Release Measures**

**Personal Precautions:** Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

**Environmental Precautions:** Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods for Cleaning Up:** Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

**Other Information:** Not applicable.

**7. Handling and Storage**

**Advice on Safe Handling:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

**Storage Conditions:** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible Materials:** Strong acids and bases; Oxidizing agents

**8. Exposure Controls / Personal Protection**

<b>Chemical Name</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>
Caustic soda	Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>

**Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

**Engineering Controls:** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment (PPE)**

**Eye/Face Protection:** Tight sealing safety goggles. Face protection shield.

**Body Protection:** Gloves made of plastic or rubber. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

**General Hygiene Considerations:**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or

clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance:</b>	Colorless, odorless Liquid
<b>pH:</b>	14.0
<b>Specific Gravity:</b>	1.28
<b>Molecular Weight:</b>	40.0 G/Mol
<b>Water Solubility:</b>	Completely soluble
<b>Melt/FreezePoint:</b>	-14 °C / 7 °F
<b>Boiling Point:</b>	112 °C / 234 °F
<b>Flammability</b>	N/A
<b>Flash Point:</b>	N/A
<b>Vapor density:</b>	N/A

## 10. Stability and Reactivity

<b>Stability:</b>	Stable under normal conditions of use and storage
<b>Conditions to Avoid:</b>	Exposure to air or moisture over prolonged periods
<b>Incompatible Materials:</b>	Strong acids and bases; Oxidizing agents
<b>Hazardous Decomposition</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors
<b>Products:</b>	
<b>Possibility of Hazardous Reactions:</b>	None under normal processing

## 11. Toxicological Information

<b>Chemical</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>
Caustic soda	No Data	1350 mg/kg ( Rabbit )

### Chronic Toxicity:

**Carcinogenicity:** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

**Target Organ Effects:** Eyes, Respiratory system, Skin

## 12. Ecological Information

**Ecotoxicity:** 0% of the mixture consists of ingredient(s) of unknown toxicity.

<b>Chemical Name</b>	<b>Toxicity to algae</b>	<b>Toxicity to fish</b>	<b>Toxicity to daphnia and other aquatic invertebrates</b>
Caustic Soda	No Data	45.4 mg/ml in 96 hr Static LC50 on Oncorhynchus mykiss	No Data

**Persistence/Degradability:** No Data

**Bioaccumulation:** No Data

**Mobility:** No Data

### 13. Disposal Considerations

#### Waste from Residues/Unused Products:

P501 Dispose of contents/container in accordance with local/state/federal regulations

**Contaminated Packaging:** Do not reuse container.

### 14. Transport information (USDOT):

**Proper shipping Name:** Sodium Hydroxide Solution

**Hazard Class:** 8

**UN/ID No** UN1824

**Packing Group** PG II

**Reportable Quantity (RQ)** 1000 lbs

**Description:** UN1824, SODIUM HYDROXIDE SOLUTION, 8, PG II



### 15. Regulatory Information

**All of the components in the product are on the following Inventory lists:** TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), South Korea (KECL);, China (IECSC), Philippines (PICCS), This product contains a substance not listed on international inventories - it is for research and development use only.

**Restrictions – REACH Title VII:** No Data

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**CERCLA Hazardous Substances Reportable Quantity:** 1000 lb / 454 kg

**SARA Extremely Hazardous Substances EPCRA RQ** N/A

**SARA Extremely Hazardous Substances TPQ** N/A

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

**Acute health hazard** Yes

**Chronic health hazard** No

**Fire hazard** No

**Sudden release of pressure hazard** No

**Reactive hazard** Yes

#### U.S. State Right-to-Know Regulations:

**California Proposition 65:** This product does not contain any Proposition 65 chemicals

**National Fire Protection Association (NFPA) Ratings:**

**NSF Certification:**



**16. Other Information**

This Safety Data Sheet compiled from information provided by the raw chemical product manufacturer, Vertex Chemical Corporation, St. Louis, MO.

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