

Safety Data Sheet

1. IDENTIFICATION

Caustic Soda Liquid

Use: Neutralizing agent; pulp and paper, aluminum, detergent, and restrictions on use; textile processing; vegetable oil refining; reclaiming rubber; etching and electroplating; food additive.

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2. HAZARD(S) IDENTIFICATION

GHS Classification: Skin irritation (category 1A)

Serious eye damage/ irritation (category 2)

Corrosive to metals (category 1)

Label Element:



Signal Word: **Danger**

Hazard Statement: Causes skin irritation
Causes serious eye irritation
Maybe corrosive to metals

Precautionary Statements

- Prevention:** Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves, clothing, eye protection and face protection.
Keep only in original container.
- Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Absorb spillage to prevent material damage.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable breathing.
IF INGESTED: Rinse mouth. Do NOT induce vomiting.
- Storage:** Store in corrosive resistant container with a resistant inner liner.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percentage
Sodium Hydroxide	(1310-73-2)	46% - 52%
Water	(7732-18-5)	Balance

4. FIRST-AID MEASURES

- Eyes:** Immediately flush eyes gently with warm water at least 15 minutes. Washing with in one minute is essential to achieve maximum effectiveness. Seek immediate medical attention.
- Skin:** Promptly wash with mild soap and water at least 15 minutes. Remove contaminated clothing and shoes. If skin irritation occurs; Get medical advice/attention.
- Swallowing:** Do NOT induce vomiting. Rinse mouth with water. Drink 1 or 2 glasses of water or milk. If symptoms persist, call a physician. Never give anything by mouth to an unconscious person. Get medical attention.
- Inhalation:** Remove patient to fresh air. Keep patient warm and at rest. Apply oxygen or artificial respiration if need. Call a physician.

Notes to physician: Treat symptomatically. Can cause corneal burns.

5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).
- Special Hazard:** Non-combustible material.
- Protective Equipment:** Wear full protective clothing and self-contained breathing apparatus exposed to vapors or products of combustion.
- Advice for Firefighters:** In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precaution:** Avoid contact with skin, eyes and clothing. Wear adequate personal protective clothing and equipment. Approved breathing apparatus may be necessary.
- Environmental Precaution:** Cover the drains to prevent the product from entering the environment. If product contaminates rivers and lakes or drains inform respective authorities.
- Clean up Methods:** In case of spill or leak, stop the leak as soon as possible, if safe to do so. Completely contain spilled materials with dikes, sandbags, etc. Shovel dry material into suitable container. Liquid material may be removed with a vacuum truck. Remaining material may be diluted with water and neutralized with dilute acid, then absorbed and collected. Flush spill area with water, if appropriate.
- Additional Information:** Product is water-soluble and compatible with water treatment plants.

7. HANDLING and STORAGE

- Handling:** Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not ingest. Do not eat, drink or smoke in areas where this material is used. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. NEVER add water to product. When mixing, slowly add to water to minimize heat generation and spattering.
- Storage:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances.
- Incompatible Material:** Acids and halogenated compounds, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys, Releases heat when diluted in water

8. EXPOSURE CONTROL/PERSONAL PROTECTION

- Personal Protection:** Wear gloves, apron, chemical goggles. Available information suggests that gloves made from should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
- Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full-face style mask should be used. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.
- Eye Protection:** Wear chemical safety goggles with a face-shield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- Skin Protection:** Wear protective clothing to minimize skin contact. Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Always place pants legs over boots. Contaminated clothing should be removed, then discarded or laundered. Discard contaminated leather goods.
- Other Personal Protection**
- Data:** Eyewash fountains and safety showers must be easily accessible.
- Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance:	Clear to Opaque Liquid
Odor:	Odorless
pH :	13.0 - 14.0
Specific Gravity:	1.45 - 1.55
Vapor Pressure:	Not established
Boiling Point:	215 - 291°F (102 - 144°C)
Freezing Point:	-26 to 59°F (-32 to 15 °C)
Evaporation Rate:	Not established
Solubility in Water:	Completely miscible
Viscosity:	Not established
Relative Density:	Not established

10. STABILITY and REACTIVITY

Conditions to Avoid:	Elevated temperatures and sources of ignition
Materials to Avoid:	Acids and halogenated compounds. Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys. Releases heat when diluted in water.
Possibility of Hazardous Reactions:	Mixing with water, acid, or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces
Hazardous Decomposition Products:	Toxic fumes of sodium oxide.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation:	Material may be an irritant to mucous membranes and respiratory tract.
Skin Contact:	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Ingestion:	Swallowing can result in nausea, vomiting, diarrhea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye Contact:	A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Acute toxicity

Inhalation:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L
Skin Contact:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg
Ingestion:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg
Corrosion/Irritancy:	Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes).
Skin:	This material has been classified as a Category 1A Hazard (irreversible effects to skin).
Sensation:	Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitizer.
Aspiration Hazard:	This material has been classified as non-hazardous.
Specific Target Organ Toxicity	

(Single Exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive Toxicity

(Including via lactation): This material has been classified as non-hazardous.

Specific Target Organ Toxicity

(Repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bio-accumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATION

Disposal of wastes: DO NOT mix with other chemical wastes. Do not put solutions containing this product into sewer systems. Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulation. Do not re-use empty containers.

Contaminated Packaging: Since empty containers retain product residue, follow label warnings even after container is emptied.

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options.

State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

UN Number:	UN1824
Proper Shipping Name:	Sodium Hydroxide Solution
Hazard Class/ Division:	8
Packing Group:	II
Labelling Requirements:	8
RQ (lbs):	RQ 1000 lbs. (Sodium Hydroxide)

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN Number:	UN1824
Proper Shipping Name:	Sodium Hydroxide Solution
Hazard Class/ Division:	8
Packing Group:	II
Labelling Requirements:	8

MARITIME TRANSPORT (IMO / IMDG):

UN Number:	UN1824
Proper Shipping Name:	Sodium Hydroxide Solution
Hazard Class/ Division:	8
Packing Group:	II
Labelling Requirements:	8

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)

The Stockholm Convention (Persistent Organic Pollutants)

The Rotterdam Convention (Prior Informed Consent)

International Convention for the Prevention of Pollution from Ships (MARPOL)

This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)

- Basic solutions or bases in solid form

This material/constituent(s) is covered by the following requirements:

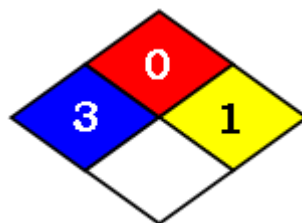
- All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

HMIS

HEALTH	3
FLAMMABILITY	0
REACTIVITY	1
PERSONAL PROTECTION	H

NFPA



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

General Information

'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2014.

This safety data sheet has been prepared by Chemical Research Products Industrial Sales Inc. & SDS Services.