

Safety Data Sheet
According to 1907/2006/EC, Article 31

Date Printed 01.11.2022

Version 10

Revision Date 16.08.2022

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

- **Product Identifier:** Liquid Caustic Soda 50% Membrane Grade
 - **Synonyms:** Sodium Hydroxide 50%
 - **Registration Number:** 01-xxxxxxxxxx-xx-0201
 - **Application of the Substance / Mixture:**
Strong chemical base in the manufacture of pulp and paper, textiles, drinking water, soaps and detergents.
 - **Manufacturer/Supplier:**
Formosa Plastics Corporation, Americas
201 Formosa Drive
Point Comfort, TX 77978 USA
+1 (361) 987-7000
E-Mail: MSDS@fpcusa.com
 - **European REACH Representative:**
INTERTEK FRANCE
Allée de la Fosse Moret
Ecological park 2
27400 Heudebouville
France
Telephone number: +33 2 79 23 03 49
Email address: if.reach@intertek.com
 - **Business Division:** Chlor-Alkali
-
- **Emergency Telephone Number:**
In case of a chemical emergency, contact CHEMTREC (24 hrs) at:
+1 (800) 424-9300 (United States, Canada, Puerto Rico, Virgin Islands)
+1 (703) 527-3887 (International & Maritime)

Section 2: Hazards Identification

- **Classification according to Regulation (EC) No 1272/2008**
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
- **Hazards Not Otherwise Classified:** May be harmful if swallowed.

• **Hazard Pictograms:**

GHS05

- **Signal Word:** DANGER
- **Hazard Statements:**
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
- **Precautionary Statements:**
P260 Do not breathe dusts or mists.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 Immediately call a POISON CENTER/doctor.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional Information:**

If you do not understand the hazards or safety precautions described in this data sheet, contact your supervisor or safety administrator before handling this product.

* Section 3: Composition/Information on Ingredients

- **Dangerous Components:**

CAS No.	Description	%	Index R-phrases
CAS: 1310-73-2	sodium hydroxide	50%	
EINECS: 215-185-5	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302		
Index number: 011-002-00-6			

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

* Section 4: First Aid Measures

- **General Information:**

Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas.

- **After Inhalation:**

Remove victim to fresh air.
 Administer oxygen if breathing is difficult.
 Administer artificial respiration if breathing has stopped.
 Onset of symptoms may be delayed up to 48 hours.
 Get immediate medical attention.

- **After Skin Contact:**

Remove contaminated clothing and shoes. Wash affected area with soap and water.
 Use caution to avoid spreading contamination while washing.
 Delayed skin damage is possible if product is not completely washed off.
 Get immediate medical attention.

- **After Eye Contact:**

In case of accidental contact, immediately flush eyes with water.
 Hold eyelids open to ensure adequate flushing.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 Get immediate medical attention.

- **After Swallowing:**

Rinse mouth.
 Administer 1-2 glasses of water to dilute ingested material.

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Do NOT induce vomiting.
 Never give anything by mouth to an unconscious person.
 Get immediate medical attention.

- **Most Important Symptoms and Effects, Both Acute and Delayed:** No further relevant information available.
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* Section 5: Firefighting Measures

- **Suitable Extinguishing Agents:** CO2, powder or water spray. Fight larger fires with water spray.
 - **Unsuitable Extinguishing Agents:** None.
 - **Special Hazards Arising from the Substance or Mixture:** No special firefighting hazards expected.
 - **Advice for Firefighters:**
 - **Protective Equipment:**
 In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved self-contained breathing apparatus (SCBA) and full protective clothing.
 - **Additional Information:** Evacuate all non-essential personnel from the danger area.
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* Section 6: Accidental Release Measures

- **Personal Precautions, Protective Equipment and Emergency Procedures:**
 In case of a spill or other accidental release of this material, contact your supervisor, safety administrator, or emergency response team immediately.
 Restrict access to keep out unauthorized or unprotected personnel.
 Stay upwind of spilled material.
 Wear appropriate personal protective equipment during all clean-up activities. See Section 8 for more information.
 Avoid inhalation and direct contact.
 All clean-up personnel must be properly trained.
 - **Environmental Precautions:** Keep spilled material out of sewage/drainage systems and waterways.
 - **Methods and Material for Containment and Cleaning Up:**
 Secure the source of the leak if conditions are safe.
 Use neutralising agent.
 Collect using an appropriate absorbent material such as clay or sand.
 Place waste in an appropriate container for disposal.
 Use care during clean-up to avoid exposure to the material and injury from broken containers.
 - **Reference to Other Sections:**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
-

* Section 7: Handling and Storage

- **Precautions for Safe Handling:**
 When diluting always pour product into water and not vice versa.
 Do not mix with water without dilution and agitation to prevent potentially violent reaction.
 Avoid inhalation and direct contact.
 Wear appropriate personal protective equipment.

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Do not mix with acids, ammonia, alcohol, ethers or hydrocarbons.

- **Protection Against Fires and Explosions:** Contact with metals may form hydrogen gas.
 - **Conditions for Safe Storage, Including Any Incompatibilities:**
Store in closed, properly labeled containers.
Protect containers from heat, physical damage, ignition sources and incompatible materials.
Have emergency equipment for fires and spills readily available.
Absorbs carbon dioxide. Keep container closed.
There is no specific limit on shelf-life if material is stored in a closed container.
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* Section 8: Exposure Controls/Personal Protection

- **Control Parameters:**
- **Occupational Exposure Limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure Controls:** Ensure emergency eyewash and shower facilities are available.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash thoroughly after handling.
Follow all safety precautions, posted signs and warnings.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
An industrial hygiene risk assessment is required to determine appropriate respiratory protection.
An air-purifying respirator may be appropriate under limited exposure conditions.
Perform a respirator fit/seal check after donning.
Protection provided by air-purifying respirators is limited.
Wear a self-contained breathing apparatus (SCBA) if there is a potential for uncontrolled release, exposure levels are not known, or in other circumstances where air-purifying respirators may not provide adequate protection.
- **Protection of hands:**



Chemical resistant gloves.

Work gloves may be worn over chemical resistant gloves.
Wear a second pair of chemical resistant gloves for added protection.
Tape gloves to coveralls or suit, if worn.
Use caution when removing gloves to avoid exposure to hazardous chemicals.

- **Eye protection:**



Safety glasses with side shields.

Splash goggles/mono-goggles recommended during tasks with high potential for exposure.

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- **Body protection:**

Lab coat recommended for small scale operations.

Tasks with a high probability for splashing or skin contact may require:

Chemical resistant coveralls or apron.

Heavy duty chemical resistant boots.

- **Additional Information:**

If unusual exposures are expected, an industrial hygiene review of work practices, engineering controls and personal protective equipment is recommended.

* Section 9: Physical and Chemical Properties

- **Information on Basic Physical and Chemical Properties:**

- | | |
|---|---|
| Physical State: | Liquid |
| Colour: | Colourless |
| · Odour: | Odourless |
| · Odour Threshold: | Not determined. |
| · pH at 20 °C: | 13.7 |
| · Melting Point/Freezing Point: | 5-12 °C (Freezing Point) |
| · Initial Boiling Point and Boiling Range: | 105-147.8 °C |
| · Flash Point: | Not applicable. |
| · Flammability (solid, gas): | Not applicable. |
| · Ignition Temperature: | Not determined. |
| · Decomposition Temperature: | Not determined. |
| · Auto-Ignition Temperature: | Not determined. |
| · Explosive Properties: | Product does not present an explosion hazard. |
| · Explosion Limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapour Pressure: | Not determined. |
| · Density at 20 °C: | 1.52 g/cm ³ |
| · Vapour Density: | Not determined. |
| · Evaporation Rate: | Not determined. |
| · Solubility: | |
| Water: | Soluble. |
| · Partition Coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | Not determined. |

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· **Other Information:** No further relevant information available.

* Section 10: Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical Stability:** Stable if used and stored according to the specifications listed below.
- **Conditions to Avoid:**
Keep away from heat, sparks and open flames.
Keep away from incompatible materials.
Absorbs carbon dioxide. Keep container closed.
- **Possibility of Hazardous Reactions/Incompatible Materials:**
Keep away from strong oxidizers.
Keep away from halogenated compounds.
Do not mix with acids, ammonia, alcohol, ethers or hydrocarbons.
Contact with metals may form hydrogen gas.
- **Incompatible Materials:** No further relevant information available.
- **Hazardous Decomposition Products:** No data available.

* Section 11: Toxicological Information

- **Acute Toxicity:** May be harmful if swallowed.
- **LD/LC50 values relevant for classification:**
1310-73-2 sodium hydroxide
Oral LD50 2,000 mg/kg (rat)
- **Skin Corrosion/Irritation:**
Causes severe skin burns and eye damage.
- **Serious Eye Damage/Irritation:**
Causes serious eye damage.
- **Respiratory Irritation:** Corrosive to the respiratory tract.
- **Respiratory or Skin Sensitisation:** No data available.
- **Information on Other Hazards:**
Endocrine Disrupting Properties:
None of the ingredients is listed.

* Section 12: Ecological Information

- **Aquatic Toxicity:** No data available.
- **Persistence and Degradability:** No data available.
- **Bioaccumulative Potential:** No data available.
- **Mobility in Soil:** No data available.

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· **Endocrine Disrupting Properties:**

The product does not contain substances with endocrine disrupting properties.

* **Section 13: Disposal Considerations**

· **Disposal Instructions:**

Keep spilled material out of sewage/drainage systems and waterways.

Maximize product recovery for reuse or recycling.

Waste materials may be hazardous due to the pH/corrosivity.

Dispose of waste in accordance with applicable laws and regulations.

· **Uncleaned Packaging:**

· **Additional Information:**

It is the responsibility of the product user to determine at the time of disposal whether a material containing or derived from this product should be classified as hazardous waste.

* **Section 14: Transport Information**

· **UN-Number**

· **ADR, IMDG, IATA**

UN1824

· **UN Proper Shipping Name:**

· **ADR**

1824 SODIUM HYDROXIDE SOLUTION

· **IMDG, IATA**

SODIUM HYDROXIDE SOLUTION

· **Transport Hazard Class(es):**

· **ADR, IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **Packing Group:**

· **ADR, IMDG, IATA**

II

· **Environmental Hazards:**

Not applicable.

· **Marine Pollutant:**

No

· **Special Precautions for User:**

Warning: Corrosive substances.

· **Hazard Identification Number (Kemler Code):**

80

· **EMS Number:**

F-A,S-B

· **Segregation Groups**

(SGG18) Alkalis

· **Stowage Category**

A

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<ul style="list-style-type: none"> · Segregation Code 	SG35 Stow "separated from" SGG1-acids
<ul style="list-style-type: none"> · Transport in Bulk According to Annex II of Marpol and the IBC Code: 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	Shippers must consult transportation regulations for packaging instructions, quantity limitations and other regulatory information applicable to the desired mode of transport.
<ul style="list-style-type: none"> · ADR · Limited Quantities (LQ) · Excepted Quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · Transport Category: · Tunnel Restriction Code: 	2 E
<ul style="list-style-type: none"> · IMDG · Limited Quantities (LQ) · Excepted Quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II

* Section 15: Regulatory Information

- **Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:**

- **Hazard Pictograms:**



GHS05

- **Signal Word:** DANGER

- **Hazard-Determining Components of Labelling:**
sodium hydroxide

- **Hazard Statements:**
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.

- **Precautionary Statements:**
 P260 Do not breathe dusts or mists.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 Immediately call a POISON CENTER/doctor.

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— EU —

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Additional Precautionary Statements:** See Section 2.

• **Directive 2012/18/EU:**

• **Named Dangerous Substances - ANNEX I:** None of the ingredients is listed.

• **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

• **Chemical Safety Assessment:** A Chemical Safety Assessment has not been carried out.

* Section 16: Other Information

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Formosa Plastics Corporation, U.S.A. at the time it was prepared. Formosa Plastics Corporation, U.S.A. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, Formosa Plastics Corporation, U.S.A. and its subsidiaries cannot guarantee that these are the only hazards that exist. Formosa Plastics Corporation, U.S.A. assumes no legal responsibility for loss, damage or expense arising out of, or in any way connected with, the handling, storage, use or disposal of this product.

• **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

• **Department Issuing Safety Data Sheet:** Corporate Environment, Health & Safety

• **Abbreviations and Acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labeling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

• **Sources**

This Safety Data Sheet conforms to regulation 1907/2006/EC (REACH). This product has been classified in accordance with European CLP regulations (1272/2008/EC).

* - Indicates that data has been updated from the previous version.