

**Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA)
+1.703.527.3887 (INT)**

SAFETY DATA SHEET

0.5N Sodium Hydroxide, Solution

This SDS is valid for all grades that start with catalog number
274

1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF SUPPLIER

Product Identifier: High Purity Chemicals
Synonyms: Caustic soda Sodium hydrate Soda lye
Other means of identification: CAS No. 1310-73-2
EINECS No. 215-185-5

Recommended use of the chemical and restrictions on use:

General Laboratory Reagent. Intended for further manufacturing applications or laboratory use only.

Supplier Details:

Greenfield Global USA, Inc.

58 Vale Road, Brookfield,

CT 06804, USA.

Tel: 203.740.3471

Fax: 203.740.3481

CCN17213

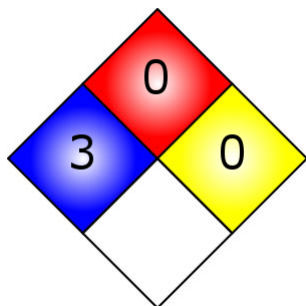
Emergency Contact: CHEMTREC: 1.800.424.9300 (USA) / +1.703.527.3887 (International)

2. HAZARDS IDENTIFICATION

Emergency Overview:

Hazardous material and substance, take precautions to avoid contact with material.

NFPA





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GHS label elements, including precautionary statements **+1.703.527.3887 (INT)**



Signal Word:
DANGER!

Hazard statement(s)
H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P501
P260
P305 + P351 + P338

P304 + P340

P303 + P361 + P353

P302 + P352
P301 + P330 + P331
P310
P405
P363
P264
P280

Dispose of contents and container to an approved waste disposal plant.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
IF ON SKIN: Wash with plenty of soap and water.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician.
Store locked up.
Wash contaminated clothing before reuse.
Wash hands thoroughly after handling.
Wear protective gloves and eye and face protection.

GHS Classification(s)
Eye damage (Category 1)
Skin corrosion (Category 1B)

Other hazards which do not result in classification:

Potential Health Effects:

Organ	Description
Eyes	Causes serious damage.
Ingestion	May be harmful if ingested.
Inhalation	May cause irritation.



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Skin

Causes irritation and severe damage.

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical identity:	0.5N NaOH Solution
Common name / Synonym:	Sodium Hydroxide Solution
CAS number:	1310-73-2
EINECS number:	215-185-5
ICSC number:	0360
RTECS #:	WB4900000
UN #:	1823
EC #:	011-002-00-6

% Weight	Material	CAS
2	Sodium hydroxide	1310-73-2
98	Water for Injection	7732-18-5

4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety.

Skin

Causes irritation, redness, pain. Wash for 15 minutes with water.

Inhalation

Move exposed individual to fresh air.

Eyes

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lenses if available to do so. Immediately get medical assistance.

Ingestion

Do not induce vomiting. Call a physician if necessary.

Note to Physician

Symptoms and Effects, both Acute and Delayed: Corrosive-harmful if swallowed. CHRONIC EFFECTS/CARCINOGENICITY: Chronic respiratory disease and dermatitis may develop from repeated exposures.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use protective respiratory protection/breathing apparatus and clothing as appropriate for the surrounding fire.



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Foam. Dry powder. Carbon dioxide. Water spray. Sand. **+1.703.527.3887 (INT)**

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Reacts with (some) metals: release of highly flammable gases/vapors (hydrogen). Thermal decomposition generates: Corrosive vapors.

Special protective equipment and precautions for firefighters:

Move away from fire or keep cool with water spray as a protective measure, where feasible.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and materials for containment and cleaning up:

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

7. HANDLING AND STORAGE

Precautions for safe handling:

Do not get in eyes, on skin, or on clothing. Remove contaminated clothing immediately. Use corrosion proof equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe spray, vapors, mist.

Conditions for safe storage, including any incompatibilities:

Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from incompatible materials like strong acids and metals. Do not store in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters, e.g., occupational exposure limit values or biological limit values:

Occupational Exposure Limits

Component	Source	Type	Value	Note
Sodium hydroxide	US (OSHA)	TWA	2mg/m ³	29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants
Sodium hydroxide	USA (ACGIH)	C	2 mg/m ³	ACGIH Threshold Limit Value

Appropriate engineering controls:

Eye wash station and safety shower.

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Individual protection measures, such as personal protective equipment: +1.703.527.3887 (INT)

Respiratory protection:

Respiratory protective equipment is recommended

Hand protection:

Chemical resistant gloves

Eye protection:

Wear safety glasses or goggles.

Skin and body protection:

Lab Coat

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (<i>physical state, color, etc.</i>)	Clear liquid
Odor	Odorless
Odor threshold	Not available
pH	13 or more
Freezing point	Not available
Initial boiling point and boiling range	Not available
Vapor pressure	Not available
Vapor Density	Not available
Relative Density	1.02 g/mL
Solubility(ies)	Miscible
Formula (SODIUM HYDROXIDE)	HNaO
Formula (WATER)	H2O
Molecular Weight (SODIUM HYDROXIDE)	40.00 g/mol
Molecular Weight (WATER)	18.02 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of use at 15-30°C.
Possibility of hazardous reactions	No data available
Conditions to avoid (e.g., static discharge, shock or vibration)	No data available
Incompatible materials	Strong acids, metals
Hazardous decomposition products	No data available



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11. TOXICOLOGICAL INFORMATION

+1.703.527.3887 (INT)

- Water 7732-18-5
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Product Summary:

Do data available for the teratogenic, mutagenic, or reproductive toxicity effects of this product.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other Hazards

Organ	Description
Inhalation	May cause respiratory tract irritation upon inhalation.

- Sodium hydroxide 1310-73-2
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Product Summary:

No data available for the teratogenic, mutagenic, or reproductive toxicity effects of the product.

Irritation:

Eyes

Rabbit- Corrosive to eyes - 24 hours

Skin

Rabbit - Severe irritation - 24 hours

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen



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or potential carcinogen by OSHA. **+1.703.527.3887 (INT)**

Other Hazards

Organ	Description
Eyes	Causes eye burns. Causes severe eye burns.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.

12. ECOLOGICAL INFORMATION

- Water 7732-18-5

Ecotoxicity (aquatic and terrestrial, where available):

Ecotoxicity
Not Applicable

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Other adverse effects:

No data available

- Sodium hydroxide 1310-73-2

Ecotoxicity (aquatic and terrestrial, where available):

Acute aquatic invertebrate toxicity (SODIUM HYDROXIDE)
Immobilization EC50 / 48 h / Daphnia - 40.38 mg/l

Acute fish toxicity (SODIUM HDROXIDE)

LC50 / 96 h / Mosquito fish - 125 mg/l

Other adverse effects:



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Harmful to aquatic life. Potential environmental hazard could occur if handled or disposed of improperly. **1.703.927.3887 (INT)**

13. DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:

Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

14. TRANSPORT INFORMATION

Description of waste residues and information on their safe handling and methods of disposal:

UN number	UN1824
UN proper shipping name	Sodium Hydroxide Solution
Transport hazard class(es)	8
Packing group (if applicable)	III

Reportable Quantity

NA

IMDG

UN-Number: UN1824 Class: 8 Packing Group: III

EMS-No: TP2

Proper shipping name: Sodium Hydroxide Solution

Marine pollutant: No

IATA

UN-Number: UN1824 Class: 8 Packing Group: III

Proper shipping name: Sodium Hydroxide Solution

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:

All ingredients are on the following inventories or are exempted from listing

Country	Notification
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZIoC
Philippines	PICCS



PHARMCO
by Greenfield Global

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United States of America	TSCA	+1.703.527.3887 (INT)
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SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components

Sodium hydroxide CAS-No. 1310-73-2 Revision Date 2007-03-01

Pennsylvania Right To Know Components

Sodium hydroxide CAS-No. 1310-73-2 Revision Date 2007-03-01

New Jersey Right To Know Components

Sodium hydroxide CAS-No. 1310-73-2 Revision Date 2007-03-01

California Prop 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION: INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

Disclaimer

The regulations published by OSHA for Hazard Communication, 29 CFR 1910.1200, and 1907/2006/EC and are used as the basis for the development of the SDS. **DISCLAIMER:** The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall RMBIO be liable for any claims, losses, or damages of any third party for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if RMBIO has been advised of the possibility of such damages.