



SAFETY DATA SHEET

Version 3

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: Sodium Hydroxide 30% Diaphragm
UN/ID No UN1824
Synonyms: Caustic soda solution; lye solution; sodium hydroxide liquid; sodium hydrate solution
Formula: NaOH in H₂O
Molecular Weight: 40.00

Company Name:
Hawkins, Inc. 3100 E. Hennepin Avenue Minneapolis, MN 55413 (612-331-6910)

Emergency Telephone:
CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

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



Signal Word: Danger

Hazard Statements:

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

Physical Hazards

Corrosive to metals	Category 1
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- May be corrosive to metals



Precautionary Statements:

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- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P330 - Rinse mouth
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P312 - Call a POISON CENTER or doctor 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
- P363 - Wash contaminated clothing before reuse
- 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
- P310 - Immediately call a POISON CENTER or doctor/physician
- 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
- P307 + P311 - IF exposed: Call a POISON CENTER or doctor/physician
- P405 - Store locked up
- P273 - Avoid release to the environment
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- P220 - Keep/Store away from clothing/ combustible materials
- P221 - Take any precaution to avoid mixing with combustibles
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
- P501 - Dispose of contents/container to industrial incineration plant
- P334 - Immerse in cool water/wrap in wet bandages
- P390 - Absorb spillage to prevent material damage
- P406 - Store in corrosive resistant aluminum container with a resistant liner

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Sodium Hydroxide	1310-73-2	29-31	215-185-5

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. Clean mouth with water.
- 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

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Flammable Properties:

Not considered to be a fire hazard; Hot or molten material can react violently with water; Contact with metals may evolve flammable hydrogen gas

Explosive Properties:

May cause fire and explosions when in contact with incompatible materials

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment; Adding water to caustic solution generates large amounts of heat

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; Sodium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions, Nitromethane and other similar compounds, aluminum, magnesium, tin, and zinc

8. Exposure Controls / Personal Protection

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWA
Sodium Hydroxide	Ceiling: 2 mg/m ³	2 mg/m ³ Ceiling 2 mg/m ³ TWA	CEV: 2 mg/m ³

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Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan
Sodium Hydroxide		Ceiling: 2 mg/m ³ Ceiling	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³	2 mg/m ³ Peak	TWA: 2 mg/m ³

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:

Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Appearance: Aqueous solution

Color: No information available

Odor: Odorless

Odor Threshold: No information available

Property

Values

Remarks • Method

pH:

14

"Salt Out" Point (°F):

No information available

Melting Point/Freezing Point:

1 °C / 34 °F

Boiling Point/Boiling Range:

115 °C / 239 °F

Flash Point:

No information available

Evaporation Rate (BuAc=1):

No information available

Flammability (solid, gas):

No information available

Flammability Limits in Air:

No information available

Upper Flammability Limit:

Lower Flammability Limit:

Vapor Pressure (mm Hg) :

No information available

Vapor density (Air =1)

No information available

Specific Gravity (H₂O=1):

No information available

Specific Gravity (2nd value):

No information available

Water Solubility:

Completely miscible

Solubility(ies):

No information available

Partition Coefficient

No information available

(n-octanol/water)

Autoignition Temperature:

No information available

Decomposition Temperature:

No information available

Kinematic Viscosity:

No information available

Dynamic Viscosity:

No information available

Oxidizing Properties:

No information available

Explosive Properties:

May cause fire and explosions when in contact with incompatible materials

9.2. Other information

Softening Point:

No information available

Molecular Weight:

40.00

VOC Content(%):

No information available

Density:

1.33

Bulk Density:

No information available

10. Stability and Reactivity

Stability:

Stable under normal conditions of use and storage

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Conditions to Avoid:	Exposure to air or moisture over prolonged periods
Incompatible Materials:	Strong acids and bases; Oxidizing agents; Sodium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions, Nitromethane and other similar compounds, aluminum, magnesium, tin, and zinc
Hazardous Decomposition Products:	Thermal decomposition can lead to release of irritating and toxic gases and vapors
Possibility of Hazardous Reactions:	Contact with nitromethane and other similar compounds causes formation of shock-sensitive salts. Contact with metals such as aluminum, magnesium, tin, and zinc cause formation of flammable hydrogen gas. Sodium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide. Precautions should be taken including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel before vessel entry

11. Toxicological Information

Product Information

Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

Chemical Name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
Sodium Hydroxide		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

70% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Hydroxide		45.4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

13. Disposal Considerations

Waste from Residues/Unused Products: Disposal should be in accordance with applicable regional, national and local laws and regulations

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Contaminated Packaging: Do not reuse container.

14. Transport Information

DOT

Proper shipping name SODIUM HYDROXIDE SOLUTION
Hazard Class 8
UN/ID No UN1824
Packing Group II
Description UN1824, SODIUM HYDROXIDE SOLUTION, 8, PG II



15. Regulatory Information

International Inventories

All of the components in the product are on the following Inventory lists: Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP),
This product contains a substance not listed on international inventories - it is for research and development use only.

AICS Complies
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Sodium Hydroxide	Listed	Listed	Listed	-	Listed	-	(2)-1972 (1)-410	Listed	KE-31487	Listed

Inventory Legend

AICS - Australian Inventory of Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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Chemical Name	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Sodium Hydroxide	1000 lb 454 kg	-	-

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	Yes
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

16. Other Information

National Fire Protection Association (NFPA) Ratings



NSF Certification



Maximum Use (mg/L unless otherwise indicated): 166

Prepared By: HSE Department

Issue Date: 14-Mar-2013

Revision Date: 23-Jul-2013

Revision Note: Product name has been changed

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the consumer. No suggestions are intended as, and should not be constructed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.

End of Safety Data Sheet