



SAFETY DATA SHEET

Sodium hydroxide, pellets

This SDS is valid for all grades that start with catalog number 289

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:

Supplier Details:

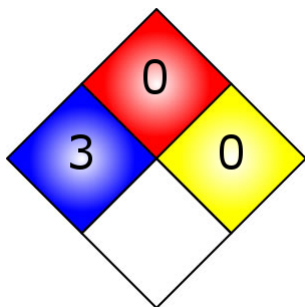
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CCN17213

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

2. HAZARDS IDENTIFICATION

OSHA Hazards:
Corrosive

NFPA



GHS label elements, including precautionary statements



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



Signal Word:

DANGER!

Hazard statement(s)

H315	Causes skin irritation.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves and eye and face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.
P310	Immediately call a POISON CENTER or doctor/ physician.

GHS Classification(s)

Eye irritation (Category 2)
Metal corrosion (Category 1)
Eye damage (Category 1)
Skin corrosion (Category 1A)

Other hazards which do not result in classification:

Potential Health Effects:

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.

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

+1.703.527.3887 (INT)

Chemical identity:	Sodium hydroxide
Common name / Synonym:	Caustic soda Sodium hydrate Soda lye
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
>97	Sodium hydroxide	1310-73-2

4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Skin

Immediately flush affected area with plenty of water while removing contaminated clothing. Wash contaminated clothing before reuse. Contact a doctor. If irritation persists, get medical attention.

Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Eyes

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

Ingestion

DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Seek medical attention. Never give anything by mouth to an unconscious individual.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

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

Carbon oxides expected to be the primary hazardous combustion product.



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Special protective equipment and precautions for firefighters: +1.703.527.3887 (INT)

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep unopened containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Do not inhale vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions:

Stop leak. Contain spill if possible and safe to do so. Prevent product from entering drains.

Methods and materials for containment and cleaning up:

Contain spill, then collect with an electrically protected vacuum cleaner or by wet-brushing and put the material into a convenient waste disposal container. Keep container closed.

7. HANDLING AND STORAGE

Precautions for safe handling:

Do not get on skin or in eyes. Avoid formation of dust and aerosols. Provide proper exhaust ventilation system in areas where dust forms.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.

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

Appropriate engineering controls:

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

Individual protection measures, such as personal protective equipment:

Respiratory protection:

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Where risk assessment shows air-purifying respirators are appropriate use a full-face particulate respirator (NIOSH (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection:

Wear impervious, flame retardant, antistatic protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

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 (physical state, color, etc.)	White pellets
Freezing point	318 °C (604 °F)
Initial boiling point and boiling range	1,390 °C (2,534 °F)
Vapor pressure	< 24.00 hPa (< 18.00 mmHg) at 20 °C (68 °F); 4.00 hPa (3.00 mmHg) at 37 °C (99 °F)
Vapor Density	1.38
Relative Density	2.1300 g/cm ³
Solubility(ies)	soluble
Formula (SODIUM HYDROXIDE)	HNaO
Molecular Weight (SODIUM HYDROXIDE)	40.00 g/mol

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	No data available
Conditions to avoid (e.g., static discharge, shock or vibration)	No data available
Incompatible materials	Strong oxidizing agents, Strong acids
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides



11. TOXICOLOGICAL INFORMATION

- Sodium hydroxide 1310-73-2

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 or potential carcinogen by OSHA.

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

- 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



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Acute fish toxicity (SODIUM HDROXIDE) +1.703.527.3887 (INT)
LC50 / 96 h / Mosquito fish - 125 mg/l

Other adverse effects:

Harmful to aquatic life. Potential environmental hazard could occur if handled or disposed of improperly.

13. DISPOSAL CONSIDERATIONS

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

Offer unused and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of the product. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION

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

UN number	1823
UN proper shipping name	Sodium hydroxide, solid
Transport hazard class(es)	8
Packing group (if applicable)	II

Reportable Quantity

1,000 lbs

IMDG

UN-Number: 1823 Class: 8 Packing Group: II

EMS-No: F-E, S-B

Proper shipping name: SODIUM HYDROXIDE, SOLID

Marine pollutant: No

IATA

UN-Number: 1823 Class: 8 Packing Group: II

Proper shipping name: Sodium hydroxide, solid

15. REGULATORY INFORMATION

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

OSHA Hazards

Corrosive

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

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

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.

SARA 311/312 Hazards

Acute Health Hazard

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

Greenfield Global USA, Inc. believes that the information on this SDS was obtained from reliable sources. However,



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