

SAFETY DATA SHEET

Section 1. Identification

Product name : Sodium Hydroxide, Dry

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Chemical intermediate, industrial use
Creation date : 04/17/2015
Print date : 04/17/2015
Version : 1.0
Supplier's details : Deep South Chemical, Inc. 229 Millstone Road, Broussard LA 70518
For Product Information/MSDSs Call: 337-837-9931
Emergency telephone number (with hours of operation) : CHEMTREC 800-424-9300 (U.S. 24 hour)
(001)281-276-5400
CANUTEC 613-996-6666 (Canada 24 hours)
CHEMTREC Int'l 01-703-527-3887 (International 24 hour)

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Corrosive to metals 1 H290 May be corrosive to metals
Skin Corrosion 1A: H314 Causes severe skin burns and eye damage
Eye Damage 1: H318 Causes serious eye damage
Acute aquatic toxicity 3 H402 Harmful to aquatic life

2.2 GHS label elements



Hazard pictograms : **GHS05**

Signal Word : Danger

Hazard statements

H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H402 Harmful to aquatic life

Precautionary statements

P234 Keep only in original container
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P264 Wash exposed skin thoroughly after handling
P273 Avoid release to the environment
P280 Wear protective gloves, protective clothing, eye protection, face protection
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 IF ON SKIN: remove/take off immediately all contaminated clothing. Rinse skin with water
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

P321 Specific treatment (see first aid instructions on label)

P363 Wash contaminated clothing before reuse

P390 Absorb spillage to prevent material damage

P405 Store locked up

P406 Store in corrosive resistant stainless steel containers with a resistant inner liner

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

Classification system

NFPA ratings: Health (3) Fire (0) Reactivity (1) Special (W)
HMIS ratings: Health (3) Fire (0) Reactivity (1)

Hazards not otherwise classified : No additional information.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Ingredient name	%	CAS number
Sodium Hydroxide	90-100	1310-73-2

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. Immediately call a Poison Center or doctor/physician..

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. Immediately call a poison center or physician. If unconscious, place in a recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt, or waistband.

Skin contact Flush contaminated skin with water for 15 minutes. Do not apply chemical neutralizing agents. Remove contaminated clothing and shoes while washing. Do not remove clothing if it sticks to the skin. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion Drink plenty of water. If victim is drowsy or unconscious, place on left side with head down. Seek medical attention. DO NOT INDUCE VOMITING.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Symptoms/injuries Causes severe skin burns and eye damage

Eye contact Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.

Inhalation Exposure to high concentrations: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Possible laryngeal spasm/oedema. Risk of lung oedema. Respiratory difficulties.

Skin contact Caustic burns/corrosion of the skin. Slow-healing wounds.

Ingestion Vomiting. Diarrhoea. Burns to the gastric/intestinal mucosa. Possible esophageal

perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness.

Chronic symptoms Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Use foam, dry powder, carbon dioxide, water spray or sand.

Unsuitable extinguishing media No unsuitable extinguishing media known.

5.2 Specific hazards arising from the chemical

Fire Hazard Direct fire hazard: Non-combustible. Indirect fire hazard: Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion Hazard Indirect explosion hazard: see "Reactivity Hazard".
Reactivity On heating: release of corrosive gases/vapors. Absorbs the atmospheric CO₂. Violent exothermic reaction with some acids. Reacts with some metals, releasing highly flammable gases/vapor (hydrogen).

5.3 Advice for firefighters

Precautionary measures Keep upwind. Consider evacuation. Have neighborhood close doors and windows.

Firefighting instructions Cool tanks/drums with water spray. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and compressed air/oxygen apparatus.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Protective equipment: Gloves. Face-shield. Corrosion-proof suit. Large spills in enclosed spaces use compressed air apparatus and gas-tight suit. Emergency procedures: Mark the danger area. No naked flames. Wash contaminated clothes. Large spills in confined spaces, consider evacuation. In case of hazardous reactions keep upwind.

For emergency responders Equip cleanup crew with proper protection. Ventilate area.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	Keep container tightly closed when not in use. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away. Protect against electrostatic charges.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including incompatibilities

Comply with applicable regulations. Keep only in the original container in a cool, well ventilated area away from strong acids and bases, sources of ignition, heat sources, combustible materials and metals. Keep container closed when not in use. Suitable packaging materials include stainless steel, nickel, polyethylene, polypropylene, glass and stoneware. Unsuitable include lead, aluminum, copper, tin, zinc and bronze.

Section 8. Exposure controls/personal protection

8.1 Control parameters

1310-73-2 Sodium Hydroxide

PEL (OSHA)	TWA: 2 mg/m ³
TLV (ACGIH)	Ceiling: 2 mg/m ³
IDLH	10 mg/m ³

8.2 Exposure controls

Appropriate engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
Personal protective equipment	Avoid all unnecessary exposure.
Materials for protective clothing	Give good resistance: butyl rubber, natural rubber, neoprene, nitrile rubber, polyethylene, PVC, tetrafluoroethylene, viton. Give less resistance: chlorinated polyethylene, styrene-butadiene rubber, nitrile rubber/PVC. Give poor resistance: PVA, natural fibers.
Eye/face protection	Wear chemical safety goggles. When transferring material, wear face-shield in addition to chemical safety goggles.
Hand protection	Chemical-resistant gloves: rubber gloves/Neoprene gloves.
Skin protection	Corrosion-proof clothing.
Respiratory protection	Wear gas mask with filter type B if conc. in air > exposure limit.

Section 9. Physical and chemical properties

Physical state	: Solid
Color	: White
Odor	: None
pH	: 14 at 50 g/L
Melting/freezing point	: 604 °F
Boiling point	: 2,534 °F
Flash point	: Not applicable
Evaporation rate	: No data available (butyl acetate = 1)
Flammability	: No data available
Lower and upper	: No data available

explosive limits	
Vapor pressure	: <18.00 mmHg
Vapor density	: 1.38 (Air = 1.0)
Relative density	: 2.13
Density	: 17.76 lbs/gal
Solubility in water	: Exothermically soluble in water, ca. 1,260 g/L
Partition coefficient n-octanol/water	: Not determined
Auto-ignition temp.	: No data available
Decomposition temp.	: Not determined
Viscosity	: Not applicable
VOC	: Not applicable

Section 10. Stability and reactivity

10.1 Reactivity

On heating will release corrosive gases/vapors. Absorbs the atmospheric CO₂. Violent exothermic reaction with some acids. Reacts with some metals to release highly flammable gases (hydrogen).

10.2 Chemical stability

Stable under normal conditions. Absorbs the atmospheric CO₂. Hygroscopic.

10.3 Possibility of hazardous reactions

Not established.

10.4 Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials

Strong acids and metals.

10.6 Hazardous decomposition products

Sodium oxide. Thermal decomposition generates corrosive vapors.

Section 11. Toxicological Information

Information on toxicological effects

Toxicological Data:

Sodium Hydroxide (1310-73-2): LD50 dermal rabbit 1,350 mg/kg

Section 12. Ecological information

Sodium Hydroxide (1310-73-2)

LC50 fishes 1	45.4 mg/L 96 hr; <i>Salmo gairdneri</i>
LC50 other aquatic 1	100 mg/L 48 hr; <i>Daphnia magna</i>
LC 50 fish 2	189 mg/L 48 hr; <i>Leuciscus idus</i>
TLM fish 1	125 ppm 96 hr; <i>Gambusia affinis</i>
TLM fish 2	99 mg/L 48 hr; <i>Lepomis macrochirus</i>
Threshold limit other 1	100 mg/L 48 hr; <i>Daphnia magna</i>

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned

or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

DOT Transport Information: UN 1823, Sodium Hydroxide, solid 8, PG II

DOT Label: Corrosive

Section 15. Regulatory information

Toxic Substances Control Act (TCSA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CERCLA RQ-40 CFR 302.4(a)

Component

Sodium hydroxide

CERCLA RQ (lbs)

1000

SARA 302 Components-40 CFR 355 Appendix A

Component

None

TPQ(Threshold Planning Quantity) (lbs)

Section 311/312 Hazard Class-40 CFR 370.2

Immediate (X)

Delayed ()

Fire ()

Reactive ()

Sudden Release of Pressure ()

SARA 313-40 CFR 372.65

Component

None

CAS Number

%(by weight)

Section 16. Other information

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