

# SAFETY DATA SHEET

## Section 1. Identification

**Product name :** Sodium Hydroxide, 50% w/w

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

**Identified uses :** Chemical intermediate, industrial use  
**Creation date :** 03/25/2015  
**Print date :** 03/25/2015  
**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

Skin Corrosion 1B: H314 Causes severe skin burns and eye damage  
Eye Damage 1: H318 Causes serious eye damage  
Aquatic Acute 3: H402 Harmful to aquatic life

### 2.2 GHS label elements



**Hazard pictograms :** **GHS05**

**Signal Word :** Danger

### Hazard statements

H314 Causes severe skin burns and eye damage  
H402 Harmful to aquatic life

### Precautionary statements

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

P363 Wash contaminated clothing before reuse  
 P405 Store locked up  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system**

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

**Hazards not otherwise classified** : No additional information.

**Section 3. Composition/information on ingredients**

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Sodium Hydroxide	50	1310-73-2
Water	50	7732-18-5

**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 CO<sub>2</sub>. 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

**For containment** Contain released substance, pump into suitable containers. Consult "Material handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Take account of toxic/corrosive precipitation water. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapor with water curtain. Heat exposure: dilute toxic gas/vapor with water spray.

**Methods for cleaning up** Take up liquid spill into absorbent material, e.g. dry sand/earth or powdered limestone. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Small quantities of liquid spill: neutralize with acid solution. Wash away neutralized product with plentiful water. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacture/competent authority. Wash clothes and equipment after handling.

## 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<sup>3</sup>  
TLV (ACGIH) Ceiling: 2 mg/m<sup>3</sup>  
IDLH 10 mg/m<sup>3</sup>

### 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 : Liquid  
Color : Clear, colorless

Odor	: None
pH	: >12
Melting/freezing point	: 53.6 °F
Boiling point	: 289.4°F
Flash point	: Not applicable
Evaporation rate	: No data available (butyl acetate = 1)
Flammability	: No data available
Lower and upper explosive limits	: No data available
Vapor pressure	: 1.5 mm Hg
Vapor density	: No data available (Air = 1.0)
Relative density	: 1.5 at 68°F
Density	: 12.51 lbs/gal
Solubility in water	: Exothermically soluble in water
Partition coefficient n-octanol/water	: Not determined
Auto-ignition temp.	: No data available
Decomposition temp.	: Not determined
Viscosity	: 0.04 Pa*s (dynamic)
VOC	: Not applicable

## Section 10. Stability and reactivity

### 10.1 Reactivity

On heating will release corrosive gases/vapors. Absorbs the atmospheric CO<sub>2</sub>. 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 CO<sub>2</sub>. 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

Water (7732-18-5): LD50 oral rat >90,000 mg/kg

## Section 12. Ecological information

Sodium Hydroxide (1310-73-2)

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

## 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 1824, Sodium Hydroxide, Solution (50%) 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 (X)  
Sudden Release of Pressure ( )

**SARA 313-40 CFR 372.65**

Component  
None

CAS Number

%(by weight)

## Section 16. Other information

WE CANNOT ANTICIPATE ALL CONDITIONS UNDER WHICH THIS INFORMATION AND OUR PRODUCTS, OR THE PRODUCTS OF OTHER MANUFACTURERS IN COMBINATION WITH OUR PRODUCTS MAY BE USED. WE ACCEPT NO RESPONSIBILITY FOR RESULTS OBTAINED BY THE APPLICATION OF THIS INFORMATION OR THE SAFETY AND SUITABILITY OF OUR PRODUCTS, EITHER ALONE OR IN COMBINATION WITH OTHER PRODUCTS. USERS ARE ADVISED TO MAKE THEIR OWN TESTS TO DETERMINE THE SAFETY AND SUITABILITY OF EACH PRODUCT OR PRODUCT COMBINATION FOR THEIR OWN PURPOSES. UNLESS OTHERWISE OBTAINED IN WRITING, WE SELL THE PRODUCTS WITHOUT WARRANTY, AND BUYERS AND USERS ASSUME ALL RESPONSIBILITY AND LIABILITY FOR LOSS OR DAMAGE ARISING FROM HANDLING AND USE OF OUR PRODUCTS, WHETHER USED ALONE OR IN COMBINATION WITH OTHER PRODUCTS.