



# HazTech Systems, Inc.

## SAFETY DATA SHEET

Revision number: 2  
Revision date: 05/13/2015

### 1. IDENTIFICATION

**Product name:** Sodium hydroxide solution  
**Product code:** RE2308  
**Synonyms:** Not available  
**CAS:** Sodium hydroxide 1310 -73 -2 / Water 7732-18-5  
**RTECS #** Not available  
**CI#:** Not available  
**Recommended use:** Laboratory chemicals, Manufacture of substances  
**Uses advised against:** Not available

**Company:**

HazTech Systems, Inc.  
3919 Bootjack Lane  
Mariposa, CA 95338 U.S.A.  
Telephone:  
1-800-543-5487 / 1-209-966-8088  
Fax:  
1-209-966-8089  
e-mail:  
sales@hazcat.com  
www.hazcat.com

**Chemical Emergencies:**

HazTech Systems, Inc. (8:00am - 5:00pm) PST  
1-800-543-5487  
**Transportation Emergencies:**  
Chemtrec 24-Hour  
1-800-424-9300 (U.S.A.)  
1-703-527-3887 (International)

### 2. HAZARD(S) IDENTIFICATION

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Corrosive to metals (Category 1), H290  
Skin corrosion (Category 1), H314  
Serious eye damage (Category 1), H318  
Acute aquatic toxicity (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

Hazard statement(s)

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H402 Harmful to aquatic life.

Precautionary statement(s)

P234 Keep only in original container.  
P264 Wash 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 (or hair): Take off immediately all contaminated clothing.

**2. HAZARDS IDENTIFICATION**

P304 + P340 + P310	Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant stainless steel container with a resistant inner liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixtures**

Formula	:	HNaO
Molecular weight	:	40.00 g/mol

**Hazardous Components**

Component	Classification	Concentration
<b>Sodium hydroxide</b>		
CAS -No.	1310 -73 -2	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; Aquatic Acute 3; H290, H314, H318, H402
EC-No.	215 -185 -5	
Index -No.	011 -002 -00 -6	
Registration number	01 -2119457892 -27 -XXXX	
>= 50 - < 70 %		

For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed**

No data available

**5. FIREFIGHTING MEASURES**

**Extinguishing media**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture**

No data available

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

No data available

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid inhalation of vapour or mist. For precautions see section 2.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

**Specific end use(s)**

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Components with workplace control parameters**

Component	CAS -No.	Value	Control parameters	Basis
Sodium hydroxide	1310 -73 -2	TWA	2.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z -1 Limits for Air Contaminants
		C	2.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Eye irritation Skin irritation		
		C	2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Eye irritation Skin irritation		
		C	2.000000 mg/m3	USA. NIOSH Recommended Exposure Limits

**Exposure controls**

**Appropriate engineering controls**

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

**Personal protective equipment**

**Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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.

Full contact

Material : Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Splash contact

Material : Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

- |   |                                       |
|---|---------------------------------------|
| a) Appearance                                   | Form : liquid<br>Colour : colourless  |
| b) Odour  | No data available                     |
| c) Odour Threshold                              | No data available                     |
| d) pH   | 14.0                                  |
| e) Melting point/freezing point                 | -12 - 10 °C (10 - 50 °F)              |
| f) Initial boiling point and boiling range      | 105 - 140 °C (221 - 284 °F)           |
| g) Flash point                                  | Not applicable                        |
| h) Evaporation rate                             | No data available                     |
| i) Flammability (solid, gas)                    | No data available                     |
| j) Upper/lower flammability or explosive limits | No data available                     |
| k) Vapour pressure                              | < 24 hPa (< 18 mmHg) at 20 °C (68 °F) |
| l) Vapour density                               | 1.38 - (Air = 1.0)                    |
| m) Relative density                             | 1.515 g/mL at 25 °C (77 °F)           |
| n) Water solubility                             | completely miscible, soluble          |
| o) Partition coefficient: n-octanol/water       | No data available                     |
| p) Auto-ignition temperature                    | No data available                     |
| q) Decomposition temperature                    | No data available                     |
| r) Viscosity                                    | No data available                     |
| s) Explosive properties                         | No data available                     |
| t) Oxidizing properties                         | No data available                     |

### Other safety information

Relative vapour density 1.38 - (Air = 1.0)

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Water, acids, Organic materials, Chlorinated solvents, Aluminum, Phosphorus, Tin/tin oxides, Zinc

**Hazardous decomposition products**

Other decomposition products - No data available

In the event of fire: see section 5

**11. TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Acute toxicity**

No data available

Inhalation : No data available

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible 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.

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS : Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Water, acids, Organic materials, Chlorinated solvents, Aluminum, Phosphorus, Tin/tin oxides, Zinc

**Hazardous decomposition products**

Other decomposition products - No data available

In the event of fire: see section 5

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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.

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS : Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**12. ECOLOGICAL INFORMATION**

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Product**

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

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION**

**DOT (US)**

UN number: 1824      Class: 8      Packing group: II

Proper shipping name: Sodium hydroxide solution

Reportable Quantity (RQ): 2000 lbs

Poison Inhalation Hazard: No

**IMDG**

UN number : 1824      Class: 8      Packing group: II      EMS-No: F-A , S-B

Proper shipping name : SODIUM HYDROXIDE SOLUTION

**IATA**

UN number: 1824      Class: 8      Packing group: II

Proper shipping name: Sodium hydroxide solution

**15. REGULATORY INFORMATION**

**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**

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

**Pennsylvania Right To Know Components**

	CAS -No.	Revision Date
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Water	7732 -18 -5	
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Sodium hydroxide	1310 -73 -2	2007 -03 -01
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**New Jersey Right To Know Components**

	CAS -No.	Revision Date
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Water	7732 -18 -5	
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Sodium hydroxide	1310 -73 -2	2007 -03 -01
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**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

**Full text of H-Statements referred to under sections 2 and 3.**

Aquatic Acute	Acute aquatic toxicity
Eye Dam.	Serious eye damage
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H402	Harmful to aquatic life.
Met. Corr.	Corrosive to metals
Skin Corr.	Skin corrosion

**HMIS Rating**

Health hazard :	3
Chronic Health Hazard :	
Flammability :	0
Physical Hazard	0

**NFPA Rating**

Health hazard :	3
Fire Hazard :	0
Reactivity Hazard :	0

**Revision Date:** 05/14/2015

**Prepared by:** HazTech Systems, Inc.

*This information is based on HazTech Systems, Inc.'s, current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*