



Safety Data Sheet  
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** Sodium Hydroxide Solution, 20% (w/v)  
**NCL Catalog Number** S-46  
**Product Description** Laboratory chemical  
**Supplier**  
NCL of Wisconsin, Inc. **Telephone:** 1-800-648-7836 **Fax:** 715-449-2454  
P.O. Box 8 **Emergency Contact:** 1-800-424-9300 (Chemtrec)  
Biramwood, WI 54414 **Email:** [nclabs@nclabs.com](mailto:nclabs@nclabs.com)

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification**

Skin Corrosion Category 1B  
Serious Eye Damage Category 1



**Signal Word** Danger

**Hazard Statements**

H314 Causes severe skin burns and eye damage.

**Precautionary Statements**

P260 Do not breathe mist/vapors/spray.  
P264 Wash exposed skin thoroughly after handling.  
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. Rinse skin with water/shower.  
P363 Wash contaminated clothing before reuse.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P310 Immediately call a POISON CENTER or doctor.  
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.  
P405 Store locked up.  
P501 Dispose of contents/container to comply with local, state and federal regulations.

**Other Hazards Not Contributing to the Classification**

None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Identity** Not applicable  
**Common Name** Not applicable

Mixture

Name	CAS #	Approximate%
Water	7732-18-5	80
Sodium Hydroxide	1310-73-2	20

**SECTION 4: FIRST AID MEASURES**

### Description of First Aid Measures

<b>General First Aid Measures</b>	Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
<b>If Inhaled</b>	Remove person to fresh air and keep comfortable for breathing. Allow victim to rest. Immediately call a POISON CENTER or doctor.
<b>In Case of Skin Contact</b>	Remove all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.
<b>In Case of Eye Contact</b>	Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>If Swallowed</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

### Most Important Symptoms/Effects Acute and Delayed

<b>After Inhalation</b>	Coughing, irritation of the respiratory tract, and irritation of the nasal mucous membranes.
<b>After Skin Contact</b>	Caustic burns/corrosion of the skin.
<b>After Eye Contact</b>	Causes serious eye irritation.
<b>After Ingestion</b>	Nausea and vomiting. Abdominal pain. Bleeding of the gastrointestinal tract. Burns to the gastric/intestinal mucosa. Possible esophageal perforation.

### Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if exposed.

## **SECTION 5: FIRE-FIGHTING MEASURES**

### Extinguishing Media

**Suitable Extinguishing Media** Foam. Dry powder. Sand. Carbon dioxide. Water spray.

**Unsuitable Extinguishing Media** Do not use high pressure water stream.

### Special Hazards Arising from the Chemical

Thermal decomposition generates corrosive vapors. Reacts with some metals to release highly flammable gases.

### Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### Personal Precautions, Protective Equipment and Emergency Procedures

**Personal Precautions** Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. Ventilate area.

**Environmental Precautions** Prevent entry to surface and ground waters.

**Methods and Materials for Containment and Cleaning Up** Clean up spill with inert absorbent material. Collect spillage. Store away from other materials. Ensure compliance with federal, state and local regulations.

## **SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling** Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

**Conditions for Safe Storage Including any Incompatibilities** Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from strong acids and metals. Do not store in corrodible metal.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Control Parameters

Sodium Hydroxide (1310-73-2)		
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

#### **Appropriate Engineering Controls**

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

#### **Individual Protection Measures**

##### **Eye/Face Protection**

Avoid all unnecessary exposure.

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

##### **Skin Protection**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

##### **Respiratory Protection**

Wear appropriate mask.

##### **Other Information**

Do not eat, drink, or smoke when using this product.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not determined
<b>pH</b>	≥ 13
<b>Melting Point/Freezing Point</b>	Not determined
<b>Initial Boiling Point and Boiling Range</b>	Not determined
<b>Flash Point</b>	Not determined
<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Upper/Lower Flammability/Explosive Limits</b>	Not determined
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	Not determined
<b>Solubility</b>	Soluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not determined
<b>Auto-Ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity</b>	Not determined

### **SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	Contact with metals such as aluminum, tin, and zinc causes formation of flammable hydrogen gas.
<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>Possibility of Hazardous Reactions</b>	No data available.
<b>Conditions to Avoid</b>	Extremely high or low temperatures. Heat and sunlight can contribute to instability.
<b>Incompatible Materials</b>	Aluminum, tin and zinc. Contact with acids, flammable liquids, and organic halogen compounds, especially trichloroethylene, may cause fire or explosion. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts.
<b>Hazardous Decomposition Products</b>	When heated to decomposition, can emit toxic gases and carbon dioxide.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity</b>	Not classified
<b>Sodium Hydroxide (1310-73-2)</b>	
<b>LD50 dermal rabbit</b>	1350 mg/kg
<b>Sodium Hydroxide, 20%</b>	
<b>LD50 dermal rabbit</b>	7997 mg/kg
<b>Water (7732-18-5)</b>	
<b>LD50 oral rat</b>	≥90000 mg/kg

<b>Skin Corrosion/Irritation</b>	Causes severe skin burns.
<b>Serious Eye Damage/Irritation</b>	Causes serious eye damage.
<b>Respiratory or Skin Sensitization</b>	Not classified
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not classified
<b>Reproductive Toxicity</b>	Not classified
<b>Specific Target Organ Toxicity (Single Exposure)</b>	Not classified
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	Not classified
<b>Aspiration Hazard</b>	Not classified
<b>Potential Adverse Human Health Effects and Symptoms</b>	No data available
<b>Symptoms/Injuries After Inhalation</b>	Coughing. Irritation of the respiratory tract and the nasal mucous membranes.
<b>Symptoms/Injuries After Skin Contact</b>	Caustic burns/corrosion of the skin.
<b>Symptoms/Injuries After Eye Contact</b>	Causes serious eye damage.
<b>Symptoms/Injuries After Ingestion</b>	Abdominal pain. Bleeding of the gastrointestinal tract. Burns to the gastric/intestinal mucosa. Nausea and possible esophageal perforation.
<b>Chronic Symptoms</b>	Not available
<b>Other Information</b>	Not available

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity</b>	Not applicable
<b>Persistence and Degradability</b>	Not applicable
<b>Bioaccumulative Potential</b>	Not applicable
<b>Mobility in Soil</b>	Not applicable
<b>Other Adverse Effects</b>	Not applicable

## SECTION 13: DISPOSAL CONSIDERATIONS

### Methods of Disposal

<b>Disposal Recommendations</b>	Dispose of contents/containers in accordance with federal, state and local regulations.
<b>Other Information</b>	Avoid release to the surrounding environment.

## SECTION 14: TRANSPORT INFORMATION

<b>UN Number</b>	1824
<b>UN Shipping Name</b>	Sodium Hydroxide Solution
<b>Transport Hazard Class(es)</b>	Not applicable
<b>Packing Group</b>	Not applicable
<b>Environmental Hazards</b>	Not applicable
<b>Transport in Bulk</b>	Not applicable
<b>Other Precautions</b>	Not applicable

**SECTION 15: REGULATORY INFORMATION**

<b>Sodium Hydroxide, 20%</b>	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
<b>Sodium Hydroxide (1310-73-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable Quantity)	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

**SECTION 16: OTHER INFORMATION**

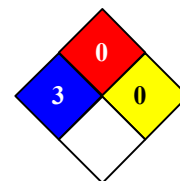
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**NFPA Hazards**

**Health Hazard** 3: Short exposure could cause serious temporary or residual injury even.

**Fire Hazard** 0: Materials that will not burn.

**Reactivity/Instability** 0: Stable.



**HMIS III Rating**

**Health** 3: Major injury likely unless prompt action is taken and medical treatment is given.

**Flammability** 0: Materials that will not burn.

**Physical Hazard** 0: Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives..

**Personal Protection** D

<b>S-46</b>	
<b>Health</b>	<b>3</b>
<b>Flammability</b>	<b>0</b>
<b>Physical Hazard</b>	<b>0</b>
<b>Personal Protection</b>	<b>D</b>

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**END OF SAFETY DATA SHEET**