

# Safety Data Sheet

## Sodium Hydroxide, 40% Aqueous

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Sodium Hydroxide, 40% Aqueous

**Catalog Numbers:** SO-442, F-390-2, K-691-3

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H290-Corrosive to metals: 1

H302-Acute toxicity, oral: 4

H313-Acute toxicity, dermal: 5

H314-Skin corrosion/irritation: 1A

H318-Serious eye damage/eye irritation: 1

40% of the mixture consists of ingredients of unknown acute inhalation toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

#### Hazard Statements:

H290-May be corrosive to metals

H302-Harmful if swallowed

H313-May be harmful in contact with skin

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

## Precautionary Statements:

P234-Keep only in original packaging.  
P260-Do not breathe dusts or mists.  
P264-Wash thoroughly after handling.  
P270-Do not eat, drink, or smoke when using this product.  
P280-Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.  
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.  
P302+P312-If on skin: Call a Poison Center/doctor if you feel unwell.  
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340-If inhaled: Remove person to fresh air and keep 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/doctor.  
P330-Rinse mouth.  
P363-Wash contaminated clothing before reuse.  
P390-Absorb spillage to prevent material damage.  
P405-Store locked up.  
P406-Store in a corrosion resistant container with a resistant inner liner.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
1310-73-2	Sodium Hydroxide	40 w/v
7732-18-5	Water	Balance

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Take off immediately all contaminated clothing and shoes. Wash clothing and shoes before reuse. Get immediate medical attention.

**Oral Exposure:** If swallowed, seek immediate medical advice. Do NOT induce vomiting. Rinse mouth with water and drink small quantities of water (stop if the exposed person feels sick as vomiting may be dangerous).

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Carbon oxides, sodium oxides, potentially hazardous fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed and non-metal container. Store in a cool, dry, and well-ventilated area. Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Personal Protective Equipment**

**Eyes:** 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:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

#### Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Sodium Hydroxide CAS#1310-73-2	2 mg/m <sup>3</sup> Ceiling	2 mg/m <sup>3</sup> Ceiling 10 mg/m <sup>3</sup> IDLH	2 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Sodium Hydroxide: 2 mg/m<sup>3</sup> Ceiling

### Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Clear, colorless

**Odor:** Odorless

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** Approx. 14.0

**Relative Density:** Not available

**Melting point/freezing point:** Not available

**Solubility:** Soluble in water

**Boiling Point:** Not available

**Flash Point:** Not available

**Evaporation Rate:** Not available

**Flammability (solid, gas):** Not available

**Partition coefficient: n-octanol/water:** Not available

**Autoignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Specific Gravity/Density:** Not available

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Metals, acids, organic materials, chlorinated solvents, aluminum, copper, zinc, tin, phosphorus, organic halogens.

**Hazardous Decomposition Products:** Carbon oxides, sodium oxides, potentially hazardous fumes and gases.

## Section 11 - Toxicological Information

**CAS#1310-73-2 Sodium Hydroxide: RTECS#: WB4900000**

LD50 Oral: 325 mg/kg (rat)

LD50 Dermal: 1350 mg/kg (rabbit)

LC50 Inhalation: Not available

Draize test, rabbit, eye: 1 mg/24h Severe Damage.

Draize test, rabbit, skin: 500 mg/24h Severe Damage.

**Carcinogenicity:** Sodium Hydroxide CAS#1310-73-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation, and eye.

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Developmental Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Specific Organ Toxicity, Single Exposure:** Not available.

**Specific Organ Toxicity, Repeated Exposure:** Not available.

**Symptoms associated with exposure:** Corrosive material. Ingestion may cause swelling, stomach pain, burns of the mouth and throat, as well as danger of perforation of the esophagus and stomach. Eye contact may cause pain, watering, redness, serious damage. Skin contact may cause pain, irritation, burns, redness, blistering. Inhalation overexposure may cause burns of the mucous membranes, cough, shortness of breath, respiratory tract damage.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Harmful to aquatic life.

**CAS#1310-73-2 Sodium Hydroxide:**

LC50, freshwater fish: 45.4 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)

LC50, freshwater fish: 125 mg/L 96h (gambusia affinis)(mosquito fish)

EC50, water flea: 40.4 mg/L 48h (ceriodaphnia)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

Section 14 - Transport Information

**DOT**

Proper shipping name: Sodium Hydroxide Solution  
UN1824  
PG II  
Hazard Class 8

Section 15 - Regulatory Information

**Canada Regulatory Information**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

**SDS Creation Date:** 2-25-19

**Revision #1:** 10-7-21

**Revision #2:** 2-27-24

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