

## Sodium Hydroxide (25%) - JCI Jones Chemicals, Inc.

## M A T E R I A L S A F E T Y D A T A S H E E T

JCI Jones Chemicals, Inc.  
100 Sunny Sol Boulevard  
Caledonia, New York 14423  
(and Principal Cities)

In the event of a transportation emergency,  
Call CHEMTREC: (800) 424-9300

## SECTION I - IDENTIFICATION

TRADE NAME: Sodium Hydroxide (25%), Caustic Soda (25%)  
CHEMICAL NAME: Sodium Hydroxide  
FORMULA: NaOH  
DOT SHIPPING NAME: Sodium Hydroxide Solution  
DOT HAZARD CLASS: Corrosive Material - 8  
UN/NA NUMBER: UN 1824  
DOT LABEL: Corrosive  
DOT PLACARD: Corrosive  
REPORTABLE QUANTITY: Sodium Hydroxide: 1000 lbs/454 kg  
CAS NUMBER: 1310-73-2

## NFPA DESIGNATION 49

HAZARD-RATING: FIRE 0  
4 - EXTREME  
3 - HIGH HEALTH 3 1 REACTIVITY  
2 - MODERATE X SPECIFIC  
1 - SLIGHT  
0 - NONE  
X - BLANK

## SECTION II - HAZARDOUS INGREDIENTS

MATERIAL	% BY WEIGHT	CAS NO.	OSHA PEL	ACGIH TLV
Sodium Hydroxide	25	1310-73-2	3 2 mg/m ceiling	3 2mg/m ceiling
Inert Ingredients	Balance	Not Applicable	Not Applicable	Not Applicable

CARCINOGENICITY STATUS: NTP - No, IARC - No, OSHA - No.

(Jones Chemicals, Inc., Sodium Hydroxide 25%)

### SECTION III - PHYSICAL DATA

APPEARANCE: Colorless, clear  
BOILING POINT: 241°F (116°C)  
FREEZING POINT: 0.4°F (-18°C)  
ODOR: Odorless  
pH: 14.0 s.u. @ 77°F (25°C)  
VISCOSITY (Cs): Not available  
PERCENT VOLATILE BY VOLUME: Not available  
SOLUBILITY IN WATER: Complete  
SPECIFIC GRAVITY (WATER=1): 1.278 @ 60°F (15.6°C)  
VAPOR DENSITY (AIR=1): Not available  
VAPOR PRESSURE: 120 mm Hg

### SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (Test method): Not applicable  
AUTO IGNITION TEMPERATURE: Not applicable  
FLAMMABLE LIMITS IN AIR (VOLUME %): Not applicable  
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or foam. For large fires use water spray, fog, or alcohol foam.  
SPECIAL FIRE FIGHTING PROCEDURES: Wear personal protective equipment (See Section VIII). Remove containers from fire area if possible. Cool containers exposed to flames with water from side until well after fire is out. Avoid splattering or splashing this solution.

### SECTION V - HEALTH HAZARD INFORMATION

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

No medical conditions are known to be aggravated by exposure.

#### ROUTES OF EXPOSURE

**INHALATION:** Inhalation of solution mist can cause mild irritation at 2 mg/m<sup>3</sup>. More severe burns and upper respiratory tissue damage can occur at higher concentrations. Pneumonitis can result from severe exposures.

**SKIN CONTACT:** Major potential hazard: contact with the skin can cause severe burns with deep ulcerations. Contact with solution or mist can cause multiple burns with temporary loss of hair at burn site. Solution of 4% may not cause irritation and burning for several hours, while 25 to 50% solutions cause these effects in less than 3 minutes.

**SKIN ABSORPTION:** See "Skin Contact" under Routes of Exposure.

**EYE CONTACT:** Major potential hazard: liquid in the eye can cause severe destruction and blindness. These effects can occur rapidly, affecting all parts of the eye. Mist or dust can cause irritation with high concentrations causing destructive burns.

**INGESTION:** Ingestion of sodium hydroxide can cause severe burning and pain in lips, mouth, tongue, throat and stomach. Severe scarring of the throat can occur after swallowing. Death can result from ingestion.

(Jones Chemicals, Inc., Sodium Hydroxide 25%)

#### EFFECTS OF OVEREXPOSURE

##### ACUTE OVEREXPOSURE

**SWALLOWING:** See "Ingestion" under Routes of Exposure.  
**SKIN CONTACT:** See "Skin Contact" under Routes of Exposure.  
**INHALATION:** See "Inhalation" under Routes of Exposure.  
**EYE CONTACT:** See "Eye Contact" under Routes of Exposure.

##### CHRONIC OVEREXPOSURE

**EYE:** No known chronic effects.  
**SKIN:** No known chronic effects.

#### EMERGENCY AND FIRST AID PROCEDURES

**EYES:** In case of eye contact, immediately flush eyes with water for at least thirty (30) minutes and call a physician.

**SKIN:** In case of contact, immediately remove contaminated clothing and shoes. Wash skin with water for at least fifteen (15) minutes. If irritation persists, call a physician.

**INHALATION:** If inhaled, remove to fresh air. If not breathing, give artificial respiration and call a physician.

**INGESTION:** If swallowed, DO NOT induce vomiting. Give large amounts of water or milk if available and call a physician. Never give anything by mouth to an unconscious person.

#### SECTION VI - REACTIVITY DATA

##### CONDITIONS CONTRIBUTING TO INSTABILITY

Stable at normal room temperature and pressure. Protect against contact with moisture.

##### INCOMPATIBILITY

Chlorinated hydrocarbons, acetaldehyde, acrolein, aluminum, chlorine, trifluoride, hydroquinone, maleic anhydride and phosphorous pentoxide. Dilution with water evolves large amounts of heat.

**DECOMPOSITION PRODUCTS:** Emits caustic mist at the boiling point.

##### CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

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#### SECTION VII - SPILL OR LEAK PROCEDURES

##### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

**SPILL** - Use full protective equipment (see Section VIII) and keep unprotected personnel away. Contain spill, then cautiously dilute and neutralize with dilute acid (preferably acetic acid). Dispose of neutralized products in accordance with applicable Federal, State, and local laws. After disposal, flush spill area with large amounts of water.

**LEAK** - Contain leak and follow spill instructions.

**FIRE** - Flood with water taking care not to splash or splatter. Contact the applicable Federal, State and Local authorities in event of a major spill (RQ value: 1000 pounds).

##### WASTE DISPOSAL

Contact Federal, State, County, and local environmental regulators for guidance regarding proper disposal.

#### SECTION VIII - SPECIAL PROTECTION INFORMATION

##### VENTILATION REQUIREMENTS

Provide general ventilation to meet permissible exposure limit requirements (see Section II).

##### SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY:** Use National Institute of Occupational Safety and Health (NIOSH) or Mine Safety and Health Administration (MSHA) approved respirator appropriate for this product when permissible exposure limits are exceeded.

**EYES:** Use face shield and splash-proof chemical goggles.

**GLOVES:** Use neoprene, PVC or rubber gloves.

**OTHER:** Use rubber apron and rubber boots. Safety shower and eyewash station must be located in immediate work area.

#### SECTION IX - SPECIAL PRECAUTIONS

##### PRECAUTIONS TO BE TAKEN IN HANDLING

Do not get in eyes, on skin, or on clothing. Do not breath vapors. Keep container closed when not in use. Do not take internally. Wash thoroughly after handling. Use of goggles, face shield, rubber gloves, rubber apron, and rubber boots is recommended. Keep away from acids, organics, metals and explosives. All residual caustic soda should be removed before reuse or disposal of this container. Do not drop or roll.

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**PROPER HANDLING AND STORAGE REQUIREMENTS**

Caustic soda should be stored and handled close to a water source which can be used for emergencies. While making solutions, add caustic soda slowly to surface of water to avoid splattering. 50% caustic soda crystallizes at 55°F and should be stored in a warm area.

**OTHER PRECAUTIONS**

**DANGER:** Corrosive, burns eyes and skin, harmful if swallowed.

**ADDITIONAL REGULATORY CONCERNS**

**TSCA:** Included in the Toxic Substances Control Act (TSCA) Inventory of Chemical Substances.

**MSDS PREPARED BY:** JCI JONES CHEMICALS, INC.  
100 SUNNY SOL BLVD.  
CALEDONIA, NEW YORK 14423  
(585) 538-2314

**ISSUE DATE:** 8/15/07  
**SUPERCEDES ISSUE DATED:** 3/2/90

The information herein is given in good faith but no warranty, expressed or implied is made.

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Underwriters Laboratories Inc.®

# CERTIFICATE OF COMPLIANCE

CERTIFICATE NUMBER: 061302-MH18026

ISSUE DATE: June 13, 2002

Page 1 of 1

Issued to: JCI Jones Chemicals Inc.  
808 Sarasota Quay  
Sarasota, FL 34236

Report Reference: 010595-MH18026

This is to Certify that representative samples of:

	Max. Use Level
Sodium Hydroxide 50%	100 mg/L
Sodium Hydroxide 25-15%	200 mg/L
Sodium Hydroxide 49-26%	100 mg/L
Sodium Hydroxide 14-5%	700 mg/L

Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety:

ANSI/NSF Standard 60 - Drinking Water Treatment Additives, Health Effects

Additional Information:

Factory Locations:

Barberton, OH	Fl. Lauderdale, FL	Tacoma, WA
Beech Grove, IN	Jacksonville, FL	Torrance, CA
Caledonia, NY	Merrimack, NH	Warwick, NY
Charlotte, NC	Milford, VA	Riverview, MI

Only those products bearing the UL Classification Marking should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Marking includes: UL in a circle symbol  with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and, the product category name (product identity) as indicated in the appropriate UL Directory.

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