



Sodium hydroxide solution: sc-301824

MATERIAL SAFETY DATA SHEET

The Power to Question

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: Sodium hydroxide solution
 Catalog Number: sc-301824
 Supplier: Santa Cruz Biotechnology, Inc.
 2145 Delaware Ave.
 Santa Cruz, California 95060
 800.457.3801 or 831.457.3800
 Emergency: ChemWatch
 Within the US & Canada: 877-715-9305
 Outside the US & Canada: +800 2436 2255
 (1-800-CHEMCALL) or call +613 9573 3112

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>
Sodium hydroxide solution	1310-73-2	No

<u>Ingredient Name</u>	<u>CAS #</u>	<u>%</u>	<u>SARA 313</u>
Sodium hydroxide	1310-73-2	2-5%	No
Water	7732-18-5	95-98%	No

Synonyms: Caustic soda; Hydroxyde de sodium (French); Lewis-red devil lye; Natriumhydroxid (German); Natriumhydroxyde (Dutch); Soda lye; Sodio(idrossido di) (Italian); Sodium hydrate; Sodium hydroxide (ACGIH:OSHA); Sodium(hydroxyde de) (French); White caustic;

Formula: NaOH
 Molecular Weight: 40.00
 RTECS Number: WB4900000

SECTION 3 - HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Corrosive.
 Causes burns.

HMIS RATING

HEALTH: 3
 FLAMMABILITY: 0
 REACTIVITY: 1

NFPA RATING

HEALTH: 3
 FLAMMABILITY: 0
 REACTIVITY: 1

For additional information on toxicity, please refer to Section 11.

SECTION 4 - FIRST AID MEASURES**ORAL EXPOSURE**

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

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. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES**FLASH POINT**

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Dry chemical powder.
 Unsuitable: Do not use water.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
 Specific Hazard(s): Emits toxic fumes under fire conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES**PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL**

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal.
 Ventilate area and wash spill site after material pickup is complete.

SECTION 7 - HANDLING AND STORAGE**HANDLING**

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing.
 Avoid prolonged or repeated exposure.

STORAGE

Incompatible Materials: Absorbs carbon dioxide from air.

SPECIAL REQUIREMENTS

Air sensitive.

SECTION 8 - EXPOSURE CONTROLS / PPE**ENGINEERING CONTROLS**

Safety shower and eye bath. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.
 Hand: Compatible chemical-resistant gloves.
 Eye: Chemical safety goggles.
 Other: Faceshield (8-inch minimum).

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

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EXPOSURE LIMITS, RTECS

<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>
USA	ACGIH	Ceiling co2	MG/M3
USA	MSHA	Standard Ceiling co2	MG/M3
USA	OSHA	PEL	8H TWA 2 MG/M3
New Zealand	OEL		

Remarks: check ACGIH TLV

USA	NIOSH	Ceiling co2	MG/M3/15M
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SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

Form	Liquid
pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Surface Tension	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A

N/A = not available

SECTION 10 - STABILITY AND REACTIVITY**STABILITY**

Stable: Stable.

Conditions of Instability: Absorbs carbon dioxide from air.

Materials to Avoid: Acids, Organic materials, Chlorinated solvents, Aluminum, Phosphorus, Tin/tin oxides, Zinc.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Sodium/sodium oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION**ROUTE OF EXPOSURE**

Skin Contact: Causes burns.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes burns.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

TOXICITY DATA

Intraperitoneal
Mouse
40 MG/KG
LD50

IRRITATION DATA

Eyes
Monkey
1 %
24H
Remarks: Severe irritation effect

Skin
Rabbit
500 mg
24H
Remarks: Severe irritation effect

Eyes
Rabbit
0.4 mg
Remarks: Mild irritation effect

Eyes
Rabbit
1 %
Remarks: Severe irritation effect

Eyes
Rabbit
0.05 mg
24H
Remarks: Severe irritation effect

Eyes
Rabbit
1 mg
24H
Remarks: Severe irritation effect

Eyes
Rabbit
1 mg
30S
Remarks: Rinsed

CHRONIC EXPOSURE - MUTAGEN

Species: Hamster
Dose: 10 MMOL/L
Cell Type: lung
Mutation test: Cytogenetic analysis
Species: Hamster
Dose: 16 MMOL/L
Cell Type: ovary
Mutation test: Cytogenetic analysis

SECTION 12 - ECOLOGICAL INFORMATION

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

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. Observe all federal, state, and local environmental regulations.

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SECTION 14 - TRANSPORT INFORMATION

DOT

Proper Shipping Name: Sodium hydroxide solution
UN#: 1824
Class: 8
Packing Group: Packing Group III
Hazard Label: Corrosive
PIH: Not PIH

IATA

Proper Shipping Name: Sodium hydroxide solution
IATA UN Number: 1824
Hazard Class: 8
Packing Group: III

SECTION 15 - REGULATORY INFORMATION

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: C
Indication of Danger: Corrosive.
R: 34
Risk Statements: Causes burns.
S: 26-37/39-45
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Corrosive.
Risk Statements: Causes burns.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

2/18/2011