



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Sodium Hydroxide 20%, 25%
CAS #	Mixture
Product use	Neutralizer. Industrial cleaner. Pulping and bleaching. Soap manufacturing.
Manufacturer	SODROX Chemicals Ltd. 7040 Wellington Road 124, R.R. #6 Guelph, ON N1H 6J3 CA Business Phone: 519-837-2330 Fax: 519-837-3300 Emergency Phone: 1-800-363-6824

2. Hazards Identification

Emergency overview	DANGER CAUSES EYE BURNS. CAUSES SKIN BURNS. MAY BE FATAL IF SWALLOWED OR INHALED.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	Harmful if inhaled. May cause respiratory tract irritation or chemical burns.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Signs and symptoms	The product causes burns of eyes, skin and mucous membranes.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	See section 12.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium hydroxide	1310-73-2	15 - 40

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 20 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with cool water for 20 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear impervious gloves and chemical splash goggles. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria. Contact with metals may produce flammable hydrogen gas.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Carbon dioxide (CO ₂).
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	Irritating and/or toxic gases may be emitted upon the products decomposition.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.
Methods for containment	Stop leak if you can do so without risk.
Methods for cleaning up	Should not be released into the environment. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling	DANGER -- CORROSIVE Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing. Keep container tightly closed. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep out of the reach of children. Store in a tightly closed container in a cool, dry, well ventilated and dark place away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	
Ingredient(s)	Exposure Limits
Sodium hydroxide	ACGIH-TLV Ceiling: 2 mg/m ³ OSHA-PEL TWA: 2 mg/m ³
Engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Eye / face protection	Wear chemical goggles and face shield.
Hand protection	Impervious gloves. Confirm with reputable supplier first.
Skin and body protection	Use of an impervious apron is recommended.
Respiratory protection	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

General hygiene considerations Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Clear to slightly turbid
Color	Colourless
Form	Liquid
Odor	Odourless
Odor threshold	Not available
Physical state	Liquid
pH	14 (5% Aqueous solution)
Melting point	Not available
Freezing point	5.00 °F (-15 °C)
Boiling point	230.00 - 239.00 °F (110 - 115 °C)
Pour point	Not available
Evaporation rate	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Flammability limits in air, lower, % by volume	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	0.2 KPa (1.5 MmHg) @20°C (68°F)
Vapor density	Not applicable
Specific gravity	1.28 @ 15.5°C (60°F) (H ₂ O = 1)
Octanol/water coefficient	Not available
Solubility (H₂O)	100 %
Viscosity	7.9 Cp @20°C (68°F)
Bulk density	79.9 lb/cu ft @ 20°C
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	Reacts violently with acids. This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Exposure to moisture. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Sodium hydroxide	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Sodium hydroxide	Not available

Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	Harmful if inhaled. May cause respiratory tract irritation or chemical burns.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.	
	Ecotoxicity - Freshwater Fish - Acute Toxicity Data	
	Sodium hydroxide	1310-73-2 96 Hr LC50 Oncorhynchus mykiss: 45.4 mg/L [static]
Persistence / degradability	Not available	
Bioaccumulation / accumulation	Not available	
Mobility in environmental media	Not available	
Environmental effects	Harmful to aquatic life.	
Aquatic toxicity	Not available	
Partition coefficient	Not available	
Chemical fate information	Not available	
Other adverse effects	Not available	

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Sodium hydroxide solution
Hazard class	8
UN number	1824
Packing group	II
Additional information:	
Special provisions	B2, IB2, N34, T7, TP2



Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	SODIUM HYDROXIDE SOLUTION
Hazard class	8
UN number	1824
Packing group	II



15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Sodium hydroxide	1310-73-2	1 %
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WHMIS status Controlled
WHMIS classification Class E - Corrosive Material
WHMIS labeling



Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Sodium hydroxide	1310-73-2	1000 Lb final RQ; 454 kg final RQ
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U.S. - CWA (Clean Water Act) - Hazardous Substances

Sodium hydroxide	1310-73-2	Present
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CERCLA (Superfund) reportable quantity

Sodium hydroxide: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance Yes

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Hazardous substance

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Sodium hydroxide 1310-73-2 Present

U.S. - Louisiana - Reportable Quantity List for Pollutants

Sodium hydroxide 1310-73-2 1000 Lb final RQ; 454 kg final RQ

U.S. - Massachusetts - Right To Know List

Sodium hydroxide 1310-73-2 Present

U.S. - Minnesota - Hazardous Substance List

Sodium hydroxide 1310-73-2 Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Sodium hydroxide 1310-73-2 sn 1706

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Sodium hydroxide 1310-73-2 1000 Lb RQ (air); 100 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List

Sodium hydroxide 1310-73-2 Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Sodium hydroxide 1310-73-2 Toxic (caustic); Flammable (caustic)

Inventory name

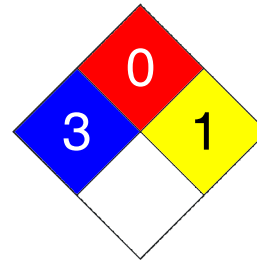
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 3
Flammability	0
Physical Hazard	1
Personal Protection	X



Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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15-Mar-2015

Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021

Other information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / MSDS coordinator - As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, Sodrox Chemicals Ltd. require, as a condition of sale, that you forward the attached Material Safety Data Sheet(s) to all affected employees, customers, and end-users. Sodrox Chemicals Ltd will send any available supplementary handling, health, and safety information to you at your request.