SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	SODIUM HYDROXIDE
Other identification (Chemical name, Commercial name, Synonymous)	SODIUM HYDROXIDE, HYDRATE DE SODIUM, SOUDE CAUSTIQUE, LYE, CAUSTIQUE, GILLETTE
Product code	SP-0140; SR-0169; SA-0169; SM-0169; SF-0169; SN-0852
Chemical formula	NaOH
Molar weight	40
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2025-02-06

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin corrosion - category 1A
- Serious eye damage/eye irritation - Eye irritation - category 1
- Corrosive to metals - category 1

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

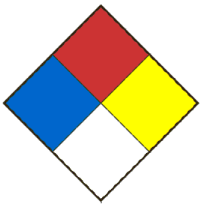
- Causes severe skin burns and eye damage
- Causes serious eye damage
- May be corrosive to metals

Precautionary statements (P)

- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Immediately call a POISON CENTER or a physician.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Store locked up.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Keep only in original container.
- Absorb spillage to prevent material damage.
- Store in a corrosion resistant container or a container with corrosion resistant liner.

Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)



Health	3
Fire	0
Reactivity	1
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
SODIUM HYDROXYDE	1310-73-2	<=100%

SECTION 04 - FIRST AID MEASURE

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Consult a physician. If the person is conscious, give water to drink. Do NOT induce vomiting.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: The product is a corrosive material. Chemical burns of the skin, eyes and respiratory and digestive mucous membranes. The corrosive effect will outweigh the toxicity for the concentrated product. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a jet of water.
Combustion products	Hazardous combustion products formed under fire conditions: Sodium oxides.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment. Ensure a good ventilation. Use NIOSH cartridge respiratory protection for larger spills. (Reference Section 8 for protective equipment to be used.) Avoid dust formation. Avoid breathing dust.
Methods and materials for containment and cleaning up	Neutralize residues with dilute acid, then rinse with water. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10). Store in a cool and dry place. Hygroscopique
Methods of handling	This product is corrosive to metals. Do not bottle in a metal container. Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Components	CAS-No.	Control parameters	Value	Basis
Sodium hydroxide	1310-73-2	C	2.000000 mg/m3	Canada. British Columbia OEL
		CEV	2.000000 mg/m3	Canada. Ontario OELs
		(c)	2.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		C	2mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1:Permissible exposure values for airborne contaminants
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required. A substance which may not be recirculated.			
		C	2.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		C	2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data origin	Sigma-Aldrich (Millipore Sigma)
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.
Gloves	Gloves resistant to basic corrosive materials. Suggested material: Nitrile. Neoprene. Butyl. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothes	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Recirculation is prohibited. Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Color	white granules or powder
Odour	Odorless
Odour threshold	Data not available
Melting point and freezing point	318.4
Boiling point	1390
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Flash point	Not applicable
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
pH	14 @ 50 g/l @ 20 °C (68 °F) (NaOH)
Kinematic viscosity	Data not available
Solubility	1 g / 0.9 mL water; 1 g / 7.2 mL alcohol absolute, 4.2 mL méthanol; soluble in glycerol (NaOH)
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	2.13
Vapour density	1.38
Particle characteristics	Granules

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Reacts strongly with metals. Basic product, reacts violently with strong acids.
Chemical stability	Hygroscopic. Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances. In contact with certain metals, the product may generate hydrogen gas, a flammable gas.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	Strong oxidizers. Strong acids. Organic materials. Some metals. Zinc. Aluminum. Stain. Alkali metals. Acid anhydrides.
Hazardous decomposition products	Sodium oxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

SODIUM HYDROXIDE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Causes skin burns.
- Inhalation	Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Acute toxicity (Ingestion)	Corrosion of the digestive tract. Bloody vomiting Diarrhea. Inflammation of the larynx. Possible perforation of the esophagus and stomach. Possible death.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Conjunctivitis. Lung damage. Eye damage. Nervous disorders. Chest pain. Dyspnoea. Laryngitis. Headache. Dizziness. Confusion. Irritability. Salivation. Sweating. Fatigue. Tearing. Alopecia. Weight loss. Loss of appetite. Convulsions. Nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 140mg/kg. LD50 Dermal - Rabbit - 1350mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

SODIUM HYDROXIDE

Ecotoxicity	Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h. Toxicity to daphnia and other aquatic invertebrates: LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h. Immobilization EC50 - Daphnia (water flea) - 40.38 mg/l - 48 h.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Neutralization can cause the formation of heat or vapors that must be controlled by the rate at which solutions are added. The solution thus neutralized can be disposed as a household waste. For large quantities, contact a specialist waste disposal company. Neutralize by slowly adding a solution of low hydrochloric acid concentration to avoid sudden temperature rise and vapor emission.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1823
UN Proper shipping name	HYDROXYDE DE SODIUM SOLIDE
Transport hazard class(es)	Matières corrosives
Packing group	II
Limited quantity index	1 kg
ERAP Index	.
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Skin corrosion/irritation - Skin corrosion - category 1A
- Serious eye damage/eye irritation - Eye irritation - category 1
- Corrosive to metals - category 1

SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail
NIH: National institute of health (U.S. Naltional Library of Medecine)
ECHA: Agence Européenne de Chimie
ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
VECD: Valeur d'exposition courte durée
VEMP: Valeur d'exposition moyenne pondérée
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TLV : Threshold limit value
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
RSST: Règlement sur la santé et sécurité au travail (Québec)
INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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