# SAFETY DATA SHEET

## SECTION 01 - IDENTIFICATION

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|---|---|
| **Product Identifier** | SODIUM HYDROXIDE 10%W/V |
| **Other identification (Chemical name, Commercial name, Synonymous)** | SODIUM HYDROXIDE, HYDRATE DE SODIUM, SOUDE CAUSTIQUE, LYE, CAUSTIQUE, GILLETTE |
| **Product code** | SS-1110 |
| **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<br>610, rue Adanac<br>Québec<br>Québec<br>G1C 7B7<br>418-660-8666 Mon-Fri 8h-16h<br>www.labmat.com<br>labmat@labmat.com |
| **Emergency phone** | 418-660-8666 Mon-Fri 8h-16h<br>CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 |
| **Date SDS** | 2026-08-27 |

## SECTION 02 - HAZARDS IDENTIFICATION

**WHIMS CANADA**

- Skin corrosion/irritation - Skin corrosion - category 1
- Serious eye damage/eye irritation - Eye irritation - category 1

**PICTOGRAMS**



**Signal Word**

DANGER

**Hazards statements (H)**

- Causes severe skin burns and eye damage
- Causes serious eye damage

**Precautionary statements (P)**

- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Wash thoroughly after handling.
- Wear protective gloves (nitrile, butyl, 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.
- Wash contaminated clothing before reuse.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Immediately call a POISON CENTER or a physician.
- Specific treatment (see section 4 on the SDS on this label).
- 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.

**Other dangers**

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

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| **Health** | 2 |
| **Fire** | 0 |
| **Reactivity** | 0 |
| **Special danger** | |

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Component | No. CAS | % Weight |
|---|---|---|
| Sodium hydroxide | 1310-73-2 | 9% |

## SECTION 04 - FIRST AID MEASURE

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| **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** | If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician. |
| **Most important symptoms and effects (acute and delayed)** | When concentrated, high exposure to the product causes the following main symptoms: 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. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. 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

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| **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** | When concentrated, the product reacts according to the following characteristics: 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

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| **Personal precautions, protective equipment and emergency measures** | Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. |
| **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

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| **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, dry, and well-ventilated place. |
| **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.<br>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) |

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| **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** | 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. Recirculation is prohibited. |

## SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

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| **Physical state** | Liquid |
| **Color** | Colorless |
| **Odour** | Odorless |
| **Odour threshold** | Data not available |
| **Melting point and freezing point** | Data not available |
| **Boiling point** | Data not available |
| **Flammability** | No |
| **Lower flammable / Explosive limit** | Data not available |
| **Upper flammable / Explosive limit** | Data not available |
| **Flash point** | Data not available |
| **Auto-ignition temperature** | Data not available |
| **Decomposition temperature** | Data not available |
| **pH** | 14 |
| **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** | 1.10 @20°C |
| **Vapour density** | Data not available |
| **Particle characteristics** | Not applicable |

## SECTION 10 - STABILITY AND REACTIVITY

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| **Reactivity** | Basic product, reacts violently with strong acids. Reacts strongly with metals. |
| **Chemical stability** | 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** | When pure, the product reacts with the following products: Strong oxidizers. Strong acids. Organic materials. Some metals. Zinc. Aluminium. Stain. Alkali metals. Acid anhydrides. |
| **Hazardous decomposition products** | Sodium oxide. |

## SECTION 11 - TOXICOLOGICAL INFORMATION

### SODIUM HYDROXIDE 10%W/V

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|---|---|
| **Routes of exposure** | Ingestion, inhalation, skin and eye contact. |
| **Acute exposition effects / symptoms:** | By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product. |
| **- Eyes** | Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| **- Skin** | Causes skin burns. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| **- Inhalation** | Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| **Acute toxicity (Ingestion)** | Corrosion of the digestive tract. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| **Chronic exposure effects / symptoms** | To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| **DL50 (specify species and route of entry)** | ETA Mix (Estimated Acute Toxicity): LD50 Oral - Rat - 1540mg/kg. LD50 Dermal - Rabbit - >5000mg/kg. |
| **CL50 (specify species and route of entry)** | ETA Mix (Estimated Acute Toxicity) LC50 Inhalation - Data not available. |

### SODIUM HYDROXIDE

| | |
|---|---|
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| **Acute exposition effects / symptoms:** | By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product. |
| **- 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. Can lead to death. |
| **Chronic exposure effects / symptoms** | Burning sensation. Dermatitis. Conjunctivitis. Lung damage. Eye damage. Nervous disorders. Chest pain. Dyspnoea. Laryngitis. Headache. 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 10%W/V

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|---|---|
| **Ecotoxicity** | Data not available. |
| **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. |

### SODIUM HYDROXIDE

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| **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

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| **Waste Disposal Method** | Neutralize by slowly adding a solution of low hydrochloric acid concentration to avoid sudden temperature rise and vapor emission. 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. |
| **Contaminated Packaging** | Dispose of as unused product. |

## SECTION 14 - TRANSPORT INFORMATION

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|---|---|
| **UN Number** | 1824 |
| **UN Proper shipping name** | SODIUM HYDROXIDE SOLUTION |
| **Transport hazard class(es)** | Corrosive materials 8 |
| **Packing group** | II |
| **Limited quantity index** | 1 L |
| **ERAP Index** | |
| **Special precautions** | - |

## SECTION 15 - REGULATORY INFORMATION

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|---|---|
| **WHIMS CANADA** | - Skin corrosion/irritation - Skin corrosion - category 1<br>- Serious eye damage/eye irritation - Eye irritation - 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.

**Last Update: 2026-08-27**