1. IDENTIFICATION AND USE OF THE PRODUCT AND SUPPLIER

PRODUCT NAME USAGE:

ROBOT-ALKALIN-R

Concentrated Alkaline Cleaner for CIP Ducts and Tanks

Maker



LIBERCHEM Inc 572 Avenue Orly, Dorval Quebec, Canada H9P 1E9

Tel: 514 631-7177

EMERGENCY PHONE Poison Control Centre (Quebec): 1 (800) 663-5060

CANUTEC: (613) 996-6666

2. IDENTIFICATION OF HAZARDS

Risk classification of the substance - Hazard statement

Hazard statement



GHS05 CORROSION

Skin corrosion, causes severe eye damage, causes skin burns. If ingesting causes burns in the digestive system. Inhalation: May cause irritation of the nose, throat, and lungs.

Corrosive materials to metals

Labeling Element



Sodium Hydroxide

Precautionary Advice

If medical advice is required; Alternate the available container or label.

Keep out of reach of children

Read the label before use

Do not breathe in spray fumes.

Skin contact (hair): Remove soiled clothing immediately, rinse thoroughly in the shower

Contact with eyes: Rinse carefully with water for several minutes, remove contact lenses if present and easy to remove, continue rinsing

Dispose of container contents in accordance with national, international, regional and local regulations.

NFPA Classification System - scale (0-4)



Santé =4 Inflammability = 1 Instability = 0 HMIS - echelle (0-4)

HEALTH	4
FLAMMABILITY	1
PHYSICAL DANGER	0

3. COMPOSITION / COMPONENT INFORMATION

HAZARDOUS INGREDIENTS
Chemical Name: Mixtures

Description: Mixture of the substances listed below with non-hazardous additions

1310-73-2	Sodium hydroxide	10 – 30 %
1310-58-3	Potassium hydroxide	10 – 30 %

4. FIRST AID

INHALATION: Bring the victim to fresh air, If the victim is unconscious, place him on the side before transporting him. Getting medical attention SKIN Wash immediately and thoroughly with water or in the shower; Use mild soap, wash clothes before reuse. Getting medical attention

EYES Rinse immediately with plenty of water, keeping the eyelids open. Remove contact lenses if the victim wears them and if they can be easily removed. Continue rinsing.

Seek medical attention immediately

INGESTION: DO NOT INDUCE VOMITING, do not make an unconscious person swallow. If the victim is conscious, rinse the victim's bouche.et make him take a lot of water. Seek

medical attention immediately.

- . Most significant symptoms and effects (acute and delayed): (Refer to section 11) -No other important information available
- Immediate medical management or special treatment, if applicable: No other important information available

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5. FIRE-FIGHTING MEASURES

- EXTINGUISHING MEANS: Use the appropriate means to extinguish the fire: Carbon dioxide (CO₂), powder, chemical foam.
- INAPPROPRIATE EXTINGUISHING AGENTS: No other important information available.
- HAZARDS SPECIFIC TO THE HAZARDOUS PRODUCT OR MIXTURE: No other important information available
- SPECIAL PROTECTIVE EQUIPMENT AND SPECIAL PRECAUTIONS FOR FIREFIGHTERS: Use personal protective equipment.

6. MEASURES IN THE EVENT OF AN ACCIDENTAL SPILL

- PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear protective equipment, keep unprotected persons away (Refer to Section 8 for personal protection) and Section 13 for product disposal data.
- METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING: Using absorbent materials such as sand, vermiculite, universal absorbents, sawdust, Use adequate ventilation. (Refer to section 13 for product disposal).

7. HANDLING AND STORAGE

- SAFE HANDLING PRECAUTIONS: The workplace must be well ventilated to prevent the formation of vapours
- STORAGE SAFETY CONDITIONS AND INCOMPATIBLE EQUIPMENT: Avoid heat, Strong acids and metals, slightly reactive with organic substances.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONTROL PARAMETERS.

COMPONENTS WITH OCCUPATIONAL EXPOSURE LIMIT VALUES		
1310-73-2 Sodium Hydroxide (25 – 50%)		
PEL	Short-term value: 2 mg/m³	
REL	Cap: 2 mg/m³	
TLV	2 mg/m³ TWA	

- APPROPRIATE ENGINEERING MEASURES: Ensure adequate ventilation, especially in enclosed areas. Use closed vacuum procedures, local exhaust ventilation, or other technical control
 to keep levels of suspended substances below exposure limits. Emergency eyewash stations and showers must be available in the workplace while handling this product.
- PERSONAL PROTECTIVE MEASURES:

GLOVES: Waterproof gloves

EYES: Protective eyewear

RESPIRATORY: Cartridge mask as needed

OTHER: Protective clothing









9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear amber liquid **SMELL** No Not available **OLFACTORY SMELL** pH (soil 1%) 13.0 - 14.0MELTING POINT Not available POINT OF EBULITION 100°C. FLASH POINT 101°C. **EVAPORATION RATE** Not available FLAMMABILITY (Solid, Gas) Not applicable LOWER FLAMMABILITY LIMITS Not available UPPER FLAMMABILITY LIMITS Not available VAPOUR PRESSURE (20 °C) 17 mm Hg DENSITY (20 °C) 1.25 – 1.35 WATER SOLUBILITY Complete STEAM DENSITY Not available PARTITION COEFFICIENT (n-octanol/water) Not available TEMPERATURE DE DECOMPOSITION Not available VISCOSITY Not available

10. STABILITY. AND RESPONSIVENESS

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RESPONSIVENESS

CHEMICAL STABILITY

RISK OF DANGEROUS REACTIONS

CONDITIONS TO AVOID

INCOMPATIBLE MATERIALS

HAZARDOUS DECOMPOSITION PRODUCTS

Stable under normal conditions No known dangerous reactions No other important information available

Acids, oxidizing products, soft metals (Al, Zn, Sn), ammonia.

No known hazardous decomposition products.

11. TOXICOLOGICAL DATA

INFORMATION ON TOXIC EFFECTS,

Acute toxicity:

1310-73-2 Sodium Hydroxide Oral (LD50) 2000 mg.kg (rat)

HEALTH EFFECTS Causes burning of the airways, accompanied by a burning sensation in the nose and throat, coughing, wheezing, shortness of breath, and pulmonary edema.

Symptoms of pulmonary edema may occur after exposure. Chronic skin contact at low levels to cause dermatitis.

CHRONICLE EXHIBITION No health risks are known or foreseeable under normal conditions of use

CARCINOGENICITY No components of this product have been identified as probable, possible or recognized carcinogens for humans by the IARC.

MUTAGENICITY Data not available **TERATOGENICITY** Data not available

12. ECOLOGICAL DATA

ECOTOXICOLOGY The product is not classified as hazardous to the environment. However, this does not preclude the possibility that large or frequent spills may have a harmful or harmful

effect on the environment. Due to the high pH of this product, it can be expected to produce significant ecotoxicity if exposed to aquatic organisms and systems

Toxicity to daphnia and other aquatic invertebrates: 76 mg/L 24 h

PERSISTENCE AND DEGRADATION

POTENTIAL FOR BIOACCUMULATION CMOBILITY IN SOIL This product is not presumed to be bio accumulative

OTHER ADVERSE EFFECTS Unknown data

13. PRODUCT DISPOSAL DATA

Dispose of this product and its container at a hazardous or special waste collection centre. Do not allow the substance to seep into sewers/water supply lines. Destroy in accordance with all applicable regulations

WASTE RESIDUES / UNUSED PRODUCTS Dispose of in accordance with all local, provincial and federal regulations.

14. TRANSPORTATION INFORMATION

Number one UN3266 TMD, DOT, IMDG, IATA

Legal designation for transport CORROSIVE LIQUID, BASIC, INORGANIC N.O.S (Sodium Hydroxide)

Class: 8 corrosive substances Transport hazard class Etiquette: 8

Packing Group

Environmental hazards No

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15. REGULATORY INFORMATION

Product As Sold

WHMIS Classification E Corrosive substance

The components of this product are listed in the following inventories

- Canadian Domestic Substances List (DSL): All components of this product are listed on the Canadian Domestic Substances List (DSL).
- U.S. TSCA Inventory: In the TSCA Inventory

16. OTHER INFORMATION

Date of Issue 18/04/2025 Version 0.0

Prepared by Regulatory Affairs Department.

We have characterized the general risks of the product according to the USE WE RECOMMEND FOR THIS PRODUCT.

Any use that does not conform to our recommendations may affect the risk characterization.

This MSDS contains health and safety information. The product is to be used in applications that are consistent with our product documentation. Anyone handling this product should be informed of the precautions to be taken with respect to the product and should have access to this information. For all other uses, exposures must be assessed to allow for the implementation of handling practices and training programs that can ensure safety in the workplace. For more information, please speak to your technical representative.

DISCLAIMER:

The above information is based on data believed to be accurate. No warranty, express or implied, is based with respect to this data or information. It is the user's responsibility to determine whether the product is suitable for the intended conditions of use.

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