



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666


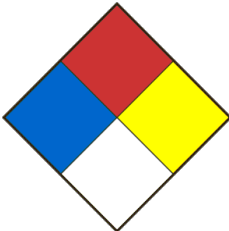
Fax. (Qc): (418) 660-8998

## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier BARIUM HYDROXIDE		Product Use Laboratory use	
Chemical formula Ba(OH) <sub>2</sub> ·8H <sub>2</sub> O		Product code BR-0103	Molar weight 315,48
Chemical name / Commercial name / Synonymous BARIUM HYDROXIDE OCTAHYDRATE, BARIUM HYDRATE, CAUSTIC BARYTA			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 4/12/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

## SECTION 02 - HAZARDS IDENTIFICATION

<b>Classification WHIMS / GHS</b>	Acute toxicity - Inhalation category 4 Serious eye damage/eye irritation - Serious eye damage category 1 Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1B
<b>Signal Word</b>	DANGER
<b>Hazards statements (H)</b>	H318 Causes serious eye damage. H332 Harmful if inhaled. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.
<b>Precautionary statements (P)</b>	P261 Avoid breathing dust / fume / gas / mist / vapours / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P270 Do not eat, drink or smoke when using this product. P330 Rinse mouth. P260 Do not breathe dust / fume / gas / mist / vapours / spray. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P363 Wash contaminated clothing before reuse. P405 Store locked up. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
<b>PICTOGRAMS</b>	
<b>Other dangers</b>	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<b>Health</b> 2 <b>Fire</b> 0 <b>Reactivity</b> 0 <b>Special danger</b>

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Hydroxyde de baryum	12230-71-6	<=100%

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. Continue rinsing eyes during transport to hospital. If irritation persists, seek medical attention.
<b>Skin contact</b>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	If the person is conscious, drink water or sodium sulphate solution. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical help.
<b>Most important symptoms and effects (acute and delayed)</b>	Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 05 - FIREFIGHTING MEASURES

<b>Flammability</b>	No
<b>Ignition conditions</b>	Not flammable or combustible.
<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a concentrated stream of water that could spread fire.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion / decomposition products</b>	Hazardous decomposition products formed under fire conditions. - Barium oxide.
<b>Special fire and explosion hazards</b>	Barium hydroxide can react violently with acids. May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	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

<b>Methods and materials for containment and cleaning up / Personal precautions, protective equipment</b>	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Clean and rinse with water. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
---	--

## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Air sensitive. Store in a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, moisture, and incompatible products. Hygroscopic.
<b>Methods of handling</b>	Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14) Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Bottle in glass or plastic containers.

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Barium hydroxide	12230-71-6	TWA	0.500000 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		TWAEV	0.500000 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.500000 mg/m <sup>3</sup>	Canada. British Columbia OEL
		TWA	0.500000 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)

<b>Data source</b>	Sigma-Aldrich.
<b>Ventilation</b>	Fan.
<b>Respiratory</b>	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat.
<b>Engineering control</b>	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

<b>Physical state</b>	Solid.
<b>Appearance</b>	Poudre cristalline de couleur blanche.-
<b>Odour</b>	inodore.
<b>Odour threshold</b>	Data not available
<b>pH</b>	12.5 à 50 g/l à 20 °C - Les solutions aqueuses sont alcalines..
<b>Melting point / Freezing point</b>	78°C
<b>Initial boiling point</b>	Data not available
<b>Boiling range</b>	Data not available
<b>Flash point</b>	Data not available
<b>Evaporation rate</b>	Data not available
<b>Flammability</b>	No
<b>Lower flammable / Explosive limit</b>	Data not available
<b>Upper flammable / Explosive limit</b>	Data not available
<b>Vapour pressure</b>	Data not available
<b>Vapour density</b>	Data not available
<b>Relative density</b>	2.18g/cm <sup>3</sup>
<b>Solubility</b>	Soluble dans l'eau et le méthanol. Peu soluble dans l'éthanol..
<b>Partition coefficient water/n-octanol</b>	Data not available
<b>Auto-ignition temperature</b>	Data not available
<b>Decomposition temperature</b>	Data not available
<b>Viscosity</b>	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	Non-reactive under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Stable under normal conditions.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Sensitive to the air. This product quickly absorbs moisture and carbon dioxide from the air.
<b>Incompatible material</b>	Strong oxidants. Acids, aluminum, carbon dioxide, zinc and moisture.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. - Barium oxide.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### BARIUM HYDROXIDE

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Severe irritation and burning may cause permanent eye damage.
<b>- Skin</b>	Severe irritation and dermatitis.
<b>- Inhalation</b>	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
<b>Acute toxicity (Ingestion)</b>	Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, headache, dizziness, salivation, nausea and vomiting, tachycardia and ventricular fibrillation, hypertension, hypokalaemia, coma and may result in death from heart failure or respiratory failure.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, nervous disorders, lung damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, salivation, tachycardia, fatigue, weight loss and loss of appetite, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 308 mg/kg LD50 Dermal - Data not available.
<b>CL50 (specify species and route of entry)</b>	LC50 - Inhalation - Data not available.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Data not available.
<b>Persistence and degradability</b>	Soluble in water. Persistence is unlikely based on the information provided.
<b>Bioaccumulative potential</b>	Data not available.
<b>Mobility in soil</b>	Probable mobility in the environment due to its solubility in water.
<b>Other adverse effects</b>	Avoid release to the environment.

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
<b>Contaminated Packaging</b>	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

UN Number	1564
UN Proper shipping name	COMPOSÉ DU BARYUM N.S.A. à l'exception du sulfate de baryum
Transport hazard class(es)	6.1 Toxic substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	16 (hydroxyde de baryum)

## SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Acute toxicity - Inhalation category 4 Serious eye damage/eye irritation - Serious eye damage category 1 Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1B
--------------	---

## SECTION 16 - OTHER INFORMATION

### Further information

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: 4/12/2019