



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

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


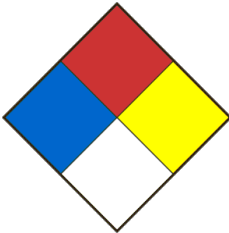
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier BISMUTH NITRATE PENTAHYDRATE		Product Use Laboratory use	
Chemical formula Bi(NO ₃) ₃ ·5H ₂ O		Product code BR-0123	Molar weight 485,07
Chemical name / Commercial name / Synonymous BISMUTH (III) NITRATE PENTAHYDRATE, NITRIC ACID BISMUTH (3+) SALT PENTAHYDRATE, BISMUTH TRINITRATE PENTAHYDRATE			
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 8/27/2021	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	<p>Oxidizing solids category 2</p> <p>Skin corrosion/irritation - Skin irritation category 2</p> <p>Serious eye damage/ Eye irritation category 2A</p> <p>Specific target organ toxicity - Single exposure category 3</p>	
Signal Word	DANGER	
Hazards statements (H)	<p>H272 May intensify fire; oxidiser.</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H335 May cause respiratory irritation.</p>	
Precautionary statements (P)	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>P220 Keep/Store away from clothing and combustible materials.</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapors / spray.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/attention.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p>	
PICTOGRAMS		
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)	
	<p>Health 2</p> <p>Fire 0</p> <p>Reactivity 1</p> <p>Special danger OX</p>	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Nitrate de bismuth pentahydrate	10035-06-0	<=100

SECTION 04 - FIRST AID MEASURES

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 soiled 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, rinse the mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Loss of appetite. Diarrhea. Weakness. Cyanosis (blue to black coloring of the skin and nails). Fever. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Non flammable. May cause fire on contact with organic material.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Bismuth oxide. - nitrogen oxides (NO _x).
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). The mixture: aluminum powder + bismuth nitrate + water can explode. Mixtures composed of alkenes, tin chloride, organics, heavy metals, nitrite, phosphorus or phosphinates are potentially dangerous in the presence of bismuth nitrate, especially if heated or milled.
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

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. When handling, wear appropriate safety equipment. Use a respirator as needed. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a well-ventilated area. Store in a cool, dry place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Do not store near combustible materials. Hygroscopic.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control	Value	Basis
BISMUTH NITRATE PENTAHYDRATE	10035-06-0	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	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.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Cristalline blanche.
Odour	inodore.
Odour threshold	Data not available
pH	Donnée non disponible..
Melting point / Freezing point	30°C
Initial boiling point	75-80°C
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Vapour density	Data not available
Relative density	2.83g/cm ³
Solubility	Décompose par l'eau. Soluble dans la glycérine, l'acétone et les acides dilués.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions. Oxidizer: risk of fire in case of contact with combustible / organic substance.
Chemical stability	Stable under recommended storage conditions. Hygroscopic.
Possibility of hazardous reactions	Oxidizer.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid moisture and excessive heat. Reacts with combustible materials.
Incompatible material	Strong reducing agents (potassium, sodium, metal hydrides), strong acids, alkenes, cyanides, hypophosphites, nitrites, phosphinates, thiocyanates, combustible and organic products, heat and moisture. Powdered metals.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Bismuth oxide. - nitrogen oxides (NOx).

SECTION 11 - TOXICOLOGICAL INFORMATION

BISMUTH NITRATE PENTAHYDRATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, cough, dyspnea, headache, dizziness, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, liver and kidney damage, cramps, diarrhea, albuminuria, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Gastrointestinal disorders, liver and kidney damage, cramps, diarrhea, albuminuria, headache, dizziness, convulsions, nausea and vomiting. Nephropathy due to bismuth accompanied by proteinuria can occur. The highest concentration is found in the kidneys, whereas the concentration found in the liver is much more low. Bismuth is transmitted well to the fetus via the amniotic fluid. Target organs: Kidney.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 4042 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Available ecological information	No
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SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

UN Number	1477
UN Proper shipping name	NITRATES INORGANIQUE, N.S.A.
Transport hazard class(es)	5.1 Oxidizing substances
Packing group	II
Limited quantity index	1kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Oxidizing solids category 2 Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/ Eye irritation category 2A Specific target organ toxicity - Single exposure category 3
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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: 8/27/2021