



Material Safety Data Sheet

EMERGENCY NUMBERS:

(USA) CHEMTREC : 1(800) 424-9300 (24hrs)

(CAN) CANUTEC : 1(613) 996-6666 (24hrs)

(USA) Anachemia : 1(518) 297-4444

(CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: D-2B		Not controlled under TDG (Canada). PIN: Not applicable. PG: Not applicable.

Section I. Product Identification and Uses

Product name	BISMUTH CHLORIDE	CI#	Not available.
Chemical formula	BiCl ₃	CAS#	7787-60-2
Synonyms	Bismuth(III) chloride, Bismuth trichloride, Trichlorobismuth, Trichlorobismuthine, AC-1272, 12696	Code	AC-1272
Supplier	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	Formula weight	315.37
		Supersedes	
Material uses	For laboratory use only.		

Section II. Ingredients

Name	CAS #	%	TLV
1) BISMUTH CHLORIDE	7787-60-2	97-100	Not established by ACGIH

Toxicity values of the hazardous ingredients

BISMUTH CHLORIDE:

ORAL (LD50): Acute: 3334 mg/kg (Rat). 2250 mg/kg (Mouse).

Section III. Physical Data

Physical state and appearance / Odor	Solid. (White deliquescent crystals.)
pH (1% soln/water)	Not available.
Odor threshold	Not available.
Percent volatile	0% at 21°C
Freezing point	230°C
Boiling point	Sublimes at 430°C.
Specific gravity	4.75 (Water = 1)
Vapor density	Not available.
Vapor pressure	Not available.
Water/oil dist. coeff.	Not available.
Evaporation rate	Not available.
Solubility	Decomposes in water.

Section IV. Fire and Explosion Data

Flash point	Not applicable.
Flammable limits	Not applicable.
Auto-ignition temperature	Not applicable.
Fire degradation products	Metallic oxides. Hydrogen chloride.
Fire extinguishing procedures	Use extinguishing media suitable for surrounding materials. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Move containing vessels from fire if without risk.
Fire and Explosion Hazards	The sensitivity to static discharge is not available. The sensitivity to impact is not available. Emits toxic fumes under fire conditions.

Section V. Toxicological Properties

Routes of entry	Ingestion and inhalation. Eye contact. Skin contact. Skin absorption.
Effects of Acute Exposure	Harmful by inhalation, in contact with skin and if swallowed. Can cause severe irritation or even burns.
Eye	Causes severe irritation. May cause severe burns and loss of vision. May cause permanent damage.
Skin	Causes severe skin irritation or burns. Readily absorbed through skin.
Inhalation	Material is extremely irritating to tissue of the mucous membranes and upper respiratory tract. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, laryngitis, dyspnea, headache, nausea, and vomiting.
Ingestion	Causes severe gastrointestinal irritation. See chronic effects.

Section V. Toxicological Properties

Effects of Chronic Overexposure Symptoms of chronic bismuth toxicity in humans consists of decreased appetite, nausea, vomiting, weakness, rheumatic pain, diarrhea, fever, metal line on gums, foul breath, gingivitis, stomatitis, albuminuria, urticaria, salivation, and dermatitis. Jaundice and conjunctival hemorrhage are rare, but have been reported. Bismuth nephropathy with proteinuria may occur. May cause brain, liver and kidney damage. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Carcinogenic effects: Not available. Mutagenic effects: Not available. Teratogenic effects: Not available. Toxicity of the product to the reproductive system: Not available. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated.

Section VI. First Aid Measures

Eye contact IMMEDIATELY flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Seek immediate medical attention.

Skin contact Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash contaminated clothing before reusing.

Inhalation Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Seek immediate medical attention.

Ingestion If conscious, wash out mouth with water. Have conscious person drink several glasses of water to dilute. Induce vomiting by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Section VII. Reactivity Data

Stability Unstable. Moisture sensitive! Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.

Hazardous decomp. products Not available.

Incompatibility Will create a violent explosion if this product, mixed with potassium or with sodium, is shocked.

Reaction Products May decompose on exposure to moist air or water. Hazardous polymerization will not occur.

Section VIII. Preventive Measures

BISMUTH CHLORIDE

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Protective Clothing in case of spill and leak A self contained breathing apparatus should be used to avoid inhalation of the product.

Spill and leak Evacuate the area. Sweep up and place in container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pick up is complete. Avoid run off.

Waste disposal According to all applicable regulations. Harmful to aquatic life at low concentrations. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

Storage and Handling Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe dust. Keep away from direct sunlight or strong incandescent light. Keep container tightly closed and dry. Manipulate under an adequate fume hood. Avoid raising dust. May react in presence of moisture. Empty containers may contain a hazardous residue. Handle and open container with care. Minimize dust generation and exposure - use dust mask or appropriate protection. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling. Product is highly hygroscopic. Store under nitrogen.

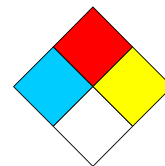
Section IX. Protective Measures

Protective clothing Face shield and splash goggles. Impervious gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. If use conditions generate dusts, wear a NIOSH-approved respirator appropriate for those emission levels. Appropriate respirators may be a full facepiece or a half mask air-purifying cartridge respirator with particulate filters, a self-contained breathing apparatus in the pressure demand mode, or a supplied-air respirator. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location.

Engineering controls Use in a chemical fume hood. Do not use in unventilated spaces.

Section X. Other Information

Special Precautions or comments Severe irritant! Harmful solid! Do not breathe dust. Avoid all contact with the product. Avoid prolonged or repeated exposure. Use in a chemical fume hood. Moisture sensitive! Store under nitrogen. To the best of our knowledge, the chemical, physical and toxicity of this substance has not been fully investigated. Handle and open container with care. Container should be opened only by a technically qualified person.
NOTE TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.
RTECS NO: EB2690000 (Bismuth chloride).



NFPA

Prepared by MSDS Department/Département de F.S..

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Telephone# (514) 489-5711

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