

SAFETY DATA SHEET

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ProChem inc.

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Bismuth (III) Chloride**

PRODUCT NUMBER: 1240

CAS NUMBER: 7787-60-2

SYNONYMS: Bismuth Trichloride, trichlorobismuth, Trichlorobismuthine

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Skin corrosion / irritation	Category – 2
Serious eye damage / irritation	Category – 2A
Specific target organ: Respiratory irritation	Category – 3

Pictogram



Signal Word **Warning**

Hazard Statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary Phrases

P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $BiCl_3$

Molecular Weight: 315.34

CHEMICAL NAME	CAS#	%
Bismuth (III) Chloride	7787-60-2	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.
SKIN EXPOSURE: Remove contaminated clothes if necessary. Seek medical assistance if irritation persists. Wash off with soap and plenty of water.
INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.
INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: Not available
EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire. Water spray, carbon dioxide, dry chemical, alcohol-resistant foam.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen chloride gas and bismuth oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust. Handle under inert gas.
CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: Contains no substances with occupational exposure limit values.
EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, .11 mm or above and an apron, or lab coat.
VENTILATION: Work under a hood that provides local exhaust, preferably mechanical.
RESPIRATOR: Use an approved respirator.
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White to yellowish solid
ODOR: Slight Acrid Odor
MOLECULAR WEIGHT: 315.34

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 447° C
MELTING POINT: 227°C
SPECIFIC GRAVITY: 4.750
SOLUBILITY IN WATER: Soluble in methanol, diethyl ether, and acetone. Decomposes in water to bismuth oxychloride.

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Excess heat. Incompatible products. Exposure to moist air or water.
INCOMPATIBILITY: Strong oxidizing agents Acids, water, metals, finely powdered metals.
DECOMPOSITION PRODUCTS: Hydrogen chloride gas and bismuth oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 3,334 mg/kg
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
RTECS: EB2690000 - Symptoms of chronic bismuth toxicity in humans consists of decreased appetite, weakness, rheumatic pain, diarrhea, fever, metal line on the gums, foul breathe, gingivitis, and dermatitis. Jaundice and conjunctival hemorrhage are rare but have been reported. Bismuth nephropathy with proteinuria may occur. The kidney is the site of highest concentration with the liver being considerably lower. Bismuth does pass into the amniotic fluid and into the fetus.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

Not a dangerous good

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
SARA 302/304: Not listed
SARA 311/312: Acute Health Hazard
SARA (TITLE 313): This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
CALIFORNIA PROP. 65: Not Listed
MAINE: Product does not contain any listed chemicals
MASSACHUSETTS RIGHT TO KNOW: No components are subject to the Massachusetts Right to Know Act.
PENNSYLVANIA RIGHT TO KNOW: Bismuth (III) Chloride
NEW JERSEY RIGHT TO KNOW: Bismuth (III) Chloride
VERMONT: Product does not contain any listed chemicals
WASHINGTON: Product does not contain any listed chemical

SECTION 16 OTHER INFORMATION

HMIS CLASSIFICATION:
Health: 2 Fire: 0 Reactivity Hazard: 0
NFPA RATING:
Health: 2 Flammability: 0

CAS #: Chemical Abstracts Service Number
LD50: Lethal Dose, 50%
mg/kg: milligrams per kilogram
RTECS: Registry of Toxic Effects of Chemical Substances
TSCA: Toxic Substances Control Act
SARA: Superfund Amendments and Reauthorization Act
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association

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DATE PREVIOUSLY REVISED: 11/21
DATE REVISED: 07/2026
REVISION SUMMARY: Removed Fax number. Updated section # 2 categories. Section # 11 added Registry of Toxic Effects of Chemical Substances number definition. Section # 15 added Maine, Massachusetts, Vermont and Washington. Section # 16 updated abbreviations. All other details in this document and about the product remained unchanged. Updated by EHS 7/10/26.

EHS/SDS Dept.