



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1 PRODUCT AND COMPANY INFORMATION

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

PRODUCT NUMBER: 1243

CAS NUMBER: 7787-61-3

SYNONYMS: Bismuth trifluoride

### MANUFACTURER:

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H314	Causes severe skin burns and eye damage.
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### Precautionary Phrases

P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
H280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
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.

### HMIS CLASSIFICATION:

Health: 3                      Fire: 0                      Physical Hazard: 0

### NFPA RATING:

Health: 3                      Flammability: 0                      Reactivity Hazard: 0

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

**EMERGENCY OVERVIEW:** Hydrolyzes in contact with moisture releasing toxic and corrosive fumes of hydrogen fluoride. Causes delayed deep, slow healing, painful burns. Bismuth salts can cause mild kidney damage.

**EYE CONTACT:** May cause serious eye damage. Effects may not immediately appear.

**SKIN CONTACT:** Prolonged contact with skin may cause delayed deep slow healing painful burns.

**INHALATION:** Dust or hydrofluoric acid fumes may cause severe irritation to the respiratory tract.

**INGESTION:** May cause salivation, nausea, vomiting, diarrhea, and painful abdominal burns.

**CHRONIC HEALTH EFFECTS:** Prolonged exposure to soluble fluorine compounds can cause deterioration of bone and tooth structure, and kidney damage. Prolonged exposure to bismuth compounds can cause metal line of gums, foul breath, and mild kidney damage.

**ACUTE HEALTH EFFECTS:** Fluoride poisoning may cause nausea, vomiting, diarrhea, weakness, coma, and respiratory paralysis. Hydrofluoric acid may cause eye and skin burns and pulmonary edema.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: BiF<sub>3</sub>

Molecular Weight: 265.98

CHEMICAL NAME	CAS#	%
Bismuth (III) Fluoride	7787-61-3	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:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. Give oxygen if deemed necessary. If not breathing administer CPR. 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:** No data

**EXPLOSION LIMITS:** No data

**EXTINGUISHING MEDIUM:** Carbon dioxide, dry chemical, chemical 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 barium oxide.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear appropriate respiratory and protective equipment to avoid all exposure to with the material. Ensure adequate ventilation. Avoid breathing dust. Avoid formation of dust.

**ENVIRONMENTAL PRECAUTIONS:** Do not let enter drains or allow to be released into environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Small spills can be mixed with powdered sodium bicarbonate, lime, or calcium carbonate and swept up. Spillage in areas not adequately ventilated may require an evacuation of area.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear approved personal protective equipment. Ensure adequate ventilation. Avoid formation of dust.

## SECTION 7 HANDLING AND STORAGE (Cont.)

**CONDITIONS FOR SAFE STORAGE:** Store in a cool, dry, and well-ventilated area. Store in a tightly sealed container. Store away from moisture.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### OCCUPATIONAL EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Bismuth trifluoride	2.5 mg/m <sup>3</sup>	PEL	OSHA
	2.5 mg/m <sup>3</sup>	TLV	OSHA
	2.5 mg/m <sup>3</sup>	REL	OSHA

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

**EYE PROTECTION:** Always wear approved safety glasses with side shields, or safety goggles, face shield when handling a chemical substance in the laboratory.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, apron, or lab coat.

**VENTILATION:** Handle in an efficient chemical fume hood.

**RESPIRATOR:** Approved NIOSH dust respirator.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** White solid

**MOLECULAR WEIGHT:** 265.98

**BOILING POINT:** Not available

**MELTING POINT:** 727° C

**SPECIFIC GRAVITY:** 5.32 gm/ml

**VAPOR PRESSURE:** Not applicable

**SOLUBILITY:** No data available

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Contact with moisture

**INCOMPATIBILITY:** Water, alcohols, strong bases, and active metals

**DECOMPOSITION PRODUCTS:** Hydrogen fluoride and bismuth oxide

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** No data available

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified as a confirmed carcinogen.

**MUTAGENIC EFFECTS:** No data

**TETRATOGENIC EFFECTS:** No data

**RTECS:** CQ88751000

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

## SECTION 12 ECOLOGICAL DATA

No information available

## SECTION 13 DISPOSAL CONSIDERATIONS

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

## SECTION 14 TRANSPORTATION DATA

UN3260 Marine Pollutant: No  
Corrosive solid, acidic, inorganic, n.o.s.  
(Bismuth (III) Fluoride)  
Class 8  
PG III

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed in the TSCA

**SARA (TITLE 313):** Not listed

**SARA 311/312:** Acute health hazard

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** No components are subject to the Massachusetts Right to Know Act

**RHODE ISLAND RIGHT TO KNOW COMPONENTS:** Bismuth trifluoride

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Bismuth trifluoride

## SECTION 16 OTHER INFORMATION

**DISCLAIMER:** The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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