

# MATERIAL SAFETY DATA SHEET

## 24HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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### SECTION 1 Product Identification

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**CHEMICAL NAME:** Bismuth Bromide  
**CAS#:** 7787-58-8  
**FORMULA:** BiBr<sub>3</sub>  
**SYNONYM:** Bismuth Tribromide

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### SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	7787-58-8	100	no data	no data

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### SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** SEVERE IRRITANT AND CORROSIVE. Material hydrolyzes in contact with moisture releasing toxic and corrosive fumes of hydrogen bromide and aqueous hydrobromic acid.

**PRIMARY ROUTES OF EXPOSURE:** Inhalation, skin, eyes, ingestion

**EYE CONTACT:** May cause redness, chemical burns, itching, watering and burning.

**SKIN CONTACT:** May cause redness, chemical burns, itching and rashes that resemble acne and furunculosis.

**INHALATION:** May cause sneezing, coughing, difficulty breathing, depression, dizziness, headache, foul breath, metallic taste and a dry throat.

**INGESTION:** May cause abdominal pain, discomfort, albumin or other protein substance in the urine and diarrhea.

**CHRONIC HEALTH EFFECTS:** Prolonged exposure to bismuth compounds can cause metal line on gums, foul breath, and mild kidney damage.

**ACUTE HEALTH EFFECTS:** May be irritating and corrosive to skin, eyes and respiratory tract. In large doses bismuth may be toxic, causing gingivitis, ulcers, diarrhea, malaise, and dermatitis.

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### SECTION 4 First Aid Measures

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**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. 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.

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## **SECTION 5            Firefighting Measures**

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**FLASH POINT:** Not applicable

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Not applicable. Use suitable extinguishing medial for surrounding materials and type of fire.

**SPECIAL FIREFIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** If involved in a fire this material may emit toxic bromide and hydrobromic acid fumes.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** When strongly heated, bismuth bromide may emit highly toxic fumes of bromide.

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## **SECTION 6            Accidental Release Measures**

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**SPILL AND LEAK PROCEDURES:** Wear self contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure proper ventilation is available. Vacuum up spill using a high efficiency unit and place in a container for proper disposal.

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## **SECTION 7            Handling and Storage**

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**HANDLING AND STORAGE:** Store material in a tightly sealed container , in a cool, dry area.

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## **SECTION 8            Exposure Controls and Personal Protection**

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

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

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## **SECTION 9            Physical and Chemical Properties**

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**COLOR AND FORM:** Yellow, crystalline, deliquescent powder

**MOLECULAR WEIGHT:** NA

**MELTING POINT (DEG. C.):** 218<sup>o</sup>

**BOILING POINT:** 453<sup>o</sup>C

**VAPOR PRESSURE:** NA

**SPECIFIC GRAVITY:** NA

**SOLUBILITY IN WATER:** Decomposes

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## SECTION 10 Stability and Reactivity

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**STABILITY:** stable

**HAZARDOUS POLYMERIZATION:** will not occur

**CONDITIONS TO AVOID:** contact with moisture

**INCOMPATIBILITY:** water, acids, oxidizing agents, sodium and potassium

**DECOMPOSITION PRODUCTS:** fumes of bromide

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## SECTION 11 Toxicological Information

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**RTECS DATA:** No specific information available on this product.

**MUTAGENIC EFFECTS:** no data

**TETRATOGENIC EFFECTS:** no data

**CARCINOGENIC EFFECTS:** no data

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

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## SECTION 12 Ecological Information

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**ECOLOGICAL INFORMATION:** No information available

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## SECTION 13 Disposal Considerations

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**DISPOSAL:** Dispose of in according to local state and federal regulations.

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## SECTION 14 Transportation Information

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Corrosive solid, n.o.s., Bismuth Bromide, Class 8, UN1759, PG 816, III

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## SECTION 15 Regulatory Information

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**TSCA:** Listed in the TSCA inventory

**SARA (TITLE 313):** Title compound not listed

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## SECTION 16 Other Information

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