



**Flash Point:** Not Applicable                      **Autoignition Temperature** Not Applicable  
**Explosion Limits Upper** No data available                      **Lower** No data available  
**Extinguishing Media:** dry chemical fire extinguisher.  
**Unsuitable Extinguishing Media:** No information available  
**Fire & Explosion Hazards:** Noncombustible solid.  
**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.  
**Hazardous Combustion Products:** Combustion generates toxic fumes.  
**Sensitivity to mechanical impact** No information available.  
**Sensitivity to static discharge** No information available.  
**Specific Hazards Arising from the Chemical:** Thermal decomposition can lead to the release of irritating gas or vapors.  
**NFPA Rating:** (estimated) Health: 0; Flammable: 0; Reactivity: 0

## **Section 6 – Accidental Release Measures**

**Personal Precautions** Use proper personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation.  
**Environmental Precautions** No information available.  
**Methods for Containment and Clean Up** Clean up spills immediately observing spills in Section 8. Sweep up or vacuum and containerize for disposal. Provide ventilation. Avoid generating dust. Always obey local regulations.

## **Section 7 – Handling and Storage**

**Handling:** Wash hands after handling. Remove contaminated clothing and wash before reuse. Avoid contact with skin, eyes and clothing. Avoid inhalation and ingestion.  
**Storage:** Keep containers tightly closed in a cool, dry, well-ventilated area away from incompatible materials.

## **Section 8 – Exposure Controls, Personal Protection**

Bismuth CAS# 7440-69-9, ACGIH TLV: NA, OSHA PEL: NA  
Lead, CAS# 7439-92-1, ACGIH TLV: 0.05 mg/m<sup>3</sup>, OSHA PEL: 50æg/m<sup>3</sup>  
Tin, CAS# 7440-31-5, ACGIH TLV: 2 mg/m<sup>3</sup>, OSHA PEL: 2gm/m<sup>3</sup>  
**Engineering Measures/ General Hygiene:** Ensure eyewash and safety showers are available.  
**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.  
**Eye/Face Protection:** Safety Glasses or goggles.    **Respiratory Protection:** Normal ventilation adequate.

## **Section 9 – Physical and Chemical Properties**

<b>Appearance/Physical State:</b> Silvery white metal	
<b>Odor:</b> Odorless	<b>% Volatility:</b> No information available
<b>Boiling Point:</b> No information available	<b>Specific Gravity:</b> Not available
<b>Melting Point:</b> 92C	<b>Vapor Pressure:</b> Not available
<b>Vapor Density:</b> No information available	<b>Flash Point:</b> Not applicable
<b>Evaporation Rate:</b> Not available	<b>Coefficient of water/oil distribution:</b> Not available
<b>pH:</b> No information available	<b>Odor Threshold:</b> Not available
<b>Flammability:</b> No information available	<b>Decomposition Temperature:</b> Not available
<b>Solubility:</b> Insoluble in water	<b>Partition Coefficient n-octanol/water:</b> Not available
<b>Relative Density:</b> No information available	<b>Molecular Weight:</b> Not available

## **Section 10 – Stability and Reactivity**

**Chemical Stability:** Stable under normal conditions of use and storage.  
**Incompatible Materials:** Strong oxidizing agents, aluminum and air, ammonium nitrate, chloric acid, chlorine, iodine pentafluoride, nitric acid, perchloric acid, nitrosyl fluoride, iodine pentafluoride and halogens, sodium peroxide, sulfur, copper nitrate, hydrochloric acid, tin chloride, potassium peroxide.  
**Conditions to Avoid:** Dust generation, excess heat.  
**Hazardous Decomposition Products:** Lead oxides, bismuth oxides, tin oxides

**Hazardous Polymerization:** Does not occur  
**Hazardous Reactions:** None under normal processing.

### **Section 11 – Toxicological Information**

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2  
LD50 orl-rat: 5000 mg/kg (Bismuth)      LC50 inhalation-rat: Not available

**Irritation:** No information available.

**Toxicologically Synergistic:** No Information Available

#### **Chronic Exposure**

**Carcinogenicity** Lead – known carcinogen in California. NTP: Suspected carcinogen. IARC: Group 2A carcinogen.

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Reproductive Effects** No Information available.

**Developmental Effects (Immediate/Delayed)** No information available.

**Teratogenicity** No information available.

**Other Adverse Effects** No information available.

**Endocrine Disruptor Information** No information available

### **Section 12 – Ecological Information**

**Ecotoxicity:** No information available

**Persistence and Degradability:** No Information Available

**Mobility:** No information available

**Bioaccumulation/ Accumulation:** No Information Available

### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### **Section 14 – Transport Information**

**DOT – Not Regulated**

### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.

**Canada DSL:** These chemicals are on Canada's DSL list.

**TSCA:** These chemicals are listed on the TSCA Inventory.

**SARA Title III Section 313:** Not applicable

**RCRA Status:** Not Applicable

**CERCLA Reportable Quantity:** Not Applicable

**WHMIS:** Not controlled

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.