

BISMUTH

Section I

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Chemical Name and Synonyms Bismuth		Date of Last Revision 7/1/93	
Formula Bi	Chemical Family Metallic Element	Chemical Abstract No. 7440-69-9	
TSCA Listed		Calc. Molecular Wt.	

Section II Hazardous Ingredients

Hazardous Ingredients	CAS #	%	TLV	OSHA PEL
Bismuth	7440-69-9	100	Not estab.	Not estab.

Section III Physical Data

Boiling Point (0°C): 1560°C	Density (gmcc): 9.80
Vapor Pressure: 100mm @ 1200°C	% Volatile by Volume: 0
Reaction with Water: NA	Evaporation Rate (H ₂ O -1): 0
Solubility in Water: Insoluble	Melting Point (°C): 271.3°C
Appearance and Odor: Silvery white metal with red tinge. Odorless.	Other Comments:

Section IV Fire & Explosion Hazard Data

Flash Point (method) NA	Autoignition Temp. NA	Flammability Non-flammable	LEI	UEI
Extinguishing Media: Dry chemical, sand, dry ground dolomite.				
Special Fire Fighting Procedures: Use normal procedures, includes wearing NIOSH/MSHA approved self-contained breathing apparatus.				
Unusual Fire and Explosion Hazards: Bismuth powder has a moderate fire hazard when exposed to flame and by chemical reaction with oxidizing agents.				

Section V Spill or Leak Process

Steps to be Taken in Case Material is Released or Spilled Wear full protective equipment, cover spill with dry sand. Mix well and carefully transfer to a container.
Waste Disposal Method (Consult federal, state or local authorities for proper disposal procedures.): Consult state, local or federal EPA

regulations for proper disposal.

Section VI Health Hazard Data

Toxicity Data OSHA (PEL): not established ACHIH (TLV): not established		HMIS Hazard Rating Health: Flammability: Reactivity: Personal Protection:	
Route(s) of Entry	Inhalation X	Skin X	Ingestion X
Effects of Overexposure (acute and chronic) Inhalation: Caused foul breath, metallic taste, gingivitis. Dermal/Eye Contact: May cause irritation Ingestion: Causes diarrhea, headache, fever, rheumatic pains Other (specify): Black lines may form on gums			
Medical Conditions Generally Aggravated by Exposure: ND			
Carcinogenicity	NTP: No	IARC Monographs No	OSHA Regulations No
Emergency and First Aid Procedures Ingestion: No data available. Obtain medical attention. Inhalation: Possible kidney damage Skin Contact: Remove contaminated clothing, flood skin with large amounts of water. Seek medical attention if irritation persists. Eye Contact: Immediately flush eyes, including under eyelids for a least 15 minutes. Call a physician.			

Section VII Reactivity Data

Stable: X Unstable:	Conditions Contributing to Instability:
Incompatibility (materials to avoid): Strong oxidizing materials, strong acids, halogens	
Hazardous Decomposition Products - Thermal and Other (list): Toxic fumes	
Hazardous Polymerization May Occur: Will Not Occur: X	Conditions to Avoid: Thermal decomposition

Section VIII Special Protective Information

Respiratory Protection (specify type). Use Only Niosh Approved Equip. High efficiency particle respirator	
Ventilation (always maintain exposure below permissible limits) Local Exhaust: Laboratory fume hood Mechanical (general): Not established Special: Other:	
Protective Gloves: rubber	Eye Protection: safety glasses with side shields--ANSI Approved

Other Protective Equipment/Work Practices: Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower and hygienic facilities for washing.

Section IX Special Precautions

Precautions to be Taken in Handling and Storing: Keep container tightly closed. Store in cool, dry, well-ventilated area. Wash after use.

Transportation Requirements

DOT Class:

UN Number:

IMCO Class:

Other:

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ND = NO DATA FOUND

NA = NOT APPLICABLE