

# SAFETY DATA SHEET

## T-Flex® Bismuth SDS

Revision Date: 11-Sep-17

### Section 1: Chemical Product and Company Identification

**Product Name** T-Flex® Bismuth

**Product Number(s):** All Product Numbers starting with T83

**Product Synonym(s):**

**Identified Uses:** Radiation shielding

**Manufacturer:** MarShield  
4140 Morris Dr  
Burlington, Ontario L7L 5L6  
Canada

**General Information:** (8-4:30 EST M-F)  
(800) 381-5335  
(905) 637-3862

**24 Hour Emergency Number:**  
CHEMTREC: 800-424-9300

### Section 2: Hazard(s) Identification

#### 2.1 Classification of the substance or mixture

GHS Classification of substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

Not classified

#### 2.2 GHS Label elements, including precautionary statements

**Pictogram:**

**Signal Word** None

**Hazard Statement(s):**

Based on available data, the classification criteria under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) are not met.

**Precautionary Statement(s):**

Prevention	P261	Avoid breathing dust and vapors.
Response	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.
Storage	P411	Store at temperatures not exceeding 176 °C /350 °F.
Disposal	P501	Dispose of contents/container in accordance with federal, state, and local regulations.

#### 2.3 Hazards Not Otherwise Classified (HNOC) or not covered by GHS:

### Section 3: Composition / Information on Ingredients

Component	CAS_Number	Percentage Range
Bismuth Solid Powder	7440-69-9	65-88%
Non hazardous ingredients according to OSHA criteria.	Not Applicable	12-35%

### Section 4: First-aid Measures

Ingestion	Never give anything by mouth to an unconscious person. Consult a physician. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.
Skin Contact	Wash with plenty of soap and water. If skin irritation occurs, seek medical advice.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present

	and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
Inhalation	Remove to fresh air. If breathing is labored, administer oxygen. If not breathing, give artificial respiration. Seek medical attention.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.
Indication of any immediate medical attention and special treatment needed	No further relevant information available

### Section 5: Firefighting Measures

Extinguishing Media	Foam, CO2, Dry Chemical, Water Spray
Protective Equipment	Wear positive pressure self-contained breathing apparatus and full personal protective equipment.

### Section 6: Accidental Release Measures

Personal precautions	Avoid creating and breathing dust. See section 8. Use proper personal protect equipment (specified in section 8)
Methods and materials for containment and clean-up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.
Reference to other sections	For disposal see section 13.

### Section 7: Handling and Storage

Conditions for safe handling	Avoid formation of dust and aerosols. Use mechanical exhaust if dust is formed. Do not heat above 176°C / 350°F during continuous use.
Specific End Use(s)	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

### Section 8: Exposure Controls / Personal Protection

Control Parameters	Contains no substances with occupational exposure limit values.
Skin Protection	Wash hands thoroughly after handling. Wear impervious gloves and clean body-covering clothing.
Respiratory protection	Respiratory protection is not normally required when using this product with adequate ventilation. Should a respirator be needed, follow OSHA respirator regulations 29 CFR 1910.134 or European Standards EN 141, 143, and 371. Use organic vapor cartridge. Do not breathe dust.

### Section 9: Physical Properties

Information on basic physical and chemical properties

Appearance:	Solid Gray	Explosion Limits (Upper/Lower):	Not Established
Odor:	None	Flash Point:	> 300 °F
Odor Threshold:	Not established	Flammability:	flash point at or above 200°F
pH:	Not applicable (non-aqueous)	Autolgnition Temperature:	Not established
Melting Point:	Not Established	Decomposition Temperature	Not established
Boiling Point:	Not Established	VaporPressure:	Not established
Relative Density:	0.1 -0.2 lb/in <sup>3</sup>	VaporDensity:	> 1
Solubility:	Insoluble	Evaporation Rate:	Not Established
Partition Coefficient:	Not established		
Viscosity:	Not applicable		

### Section 10: Stability and Reactivity

Reactivity	No hazardous reactions if stored and handled as indicated.
Chemical Stability	Stable under normal handling and storage conditions.
Hazardous reactions	Hazardous polymerization does not occur
Conditions to Avoid	No relevant information available.

Special Hazards	Possible combustion products include carbon dioxide and carbon monoxide, as well as unidentified compounds.
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### Section 11: Toxicology Information

Acute Toxicity	
Oral Effects	Ingestion/Oral-Rat LD50 > 2000 mg/kg (Immediate) Metallic taste. May cause stomach pain or vomiting.
Inhalation Effects	No data available for acute inhalation effects of this product.
Dermal Effects	No data available for acute dermal effects. Skin absorption is unlikely. Exposure to dust may cause irritation. May cause coughing and difficulty breathing.
Skin corrosion/irritation	Bismuth 99%: Skin-Human: 85.2% 15 minute(s) - Essentially non irritating.
Serious eye damage/irritation	No data available regarding serious eye damage/irritation.
Respiratory or skin sensitization	No data available regarding respiratory or skin sensitization effects of this product.
Germ Cell Mutagenicity	No data available regarding mutagenic effects of this product.
Carcinogenicity	No relevant data found.
Reproductive Toxicity	No relevant data found.
Specific Target Organ Toxicity	
Single Exposure	No data available regarding specific target organ toxicity single exposure for powder.
Repeated Exposure	No data available regarding specific target organ toxicity repeated exposure.
Aspiration Hazard	No data available regarding aspiration hazards associated with this product.

### Section 12: Ecological Information

Aquatic Toxicity	No data are available on the adverse effects of this material on the environment.
Persistence and degradability	No data are available for persistence and degradability.
Bioaccumulative potential	No data are available for bioaccumulative potential.
Mobility in Soil	No data are available for mobility in soil.
Other	Not known to have any adverse effect on the aquatic environment. It is insoluble and non-toxic.

### Section 13: Disposal Considerations

General	Material may be sold for reclaim if no other contamination exists. Avoid disposal to sewers and local waterways. Dispose of contents/container in accordance with federal, state, and local regulations.
Used:	For material contaminated with hazardous materials, dispose of mixture as hazardous material according to local, state, and federal regulations.

### Section 14: Transport Information

Air Transport:	Dependent upon qty and packaging. Consult manufacturer for guidance.
Ground Transport:	Not D.O.T. Hazardous
Water Transport:	Not Hazardous per IMDG 2012.

### Section 15: Regulatory Information

US Federal Regulations	Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
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### Section 16: Other Information

SDS Prepared By: NPO, a brand of Eichrom Technologies LLC

Trademark: T-Flex® is a registered trademark of Eichrom Technologies LLC's NPO Brand.

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