

GLENDO LLC

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MATERIAL NAME: LOW-TEMP-MELT METAL

TRADE NAME: Low-Temp-Melt Metal
PART NUMBERS: 022-830, 004-725
DISTRIBUTOR'S NAME: Glendo LLC
ADDRESS: 900 Overlander Road, Emporia, KS 66801
PHONE: (620) 343-1084

2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	CARCINOGEN	TLV-TWA	OSHA PEL ACGIH/OSHA
*Tin	7440-31-5	No	2.0 mg/cu m	2.0 mg/cu m
*Bismuth	7440-69-9	No	NE	NE

*Product contains one or more of these metallic elements in varying percentages by weight.

3. HAZARDS IDENTIFICATION

TLV: See Section 2.

PRIMARY ROUTES OF ENTRY: ingestion of dust, inhalation of dust or fumes

Exposure to the massive form of tin presents few hazards in itself. However, normal handling of tin may result in generation of dusts containing the component elements, and inhalation or ingestion of these dusts may present potentially significant health hazards. Thermal cutting and melting of tin may produce fumes containing the component's elements, and breathing these fumes may also present potentially significant health hazards. Special precautions should be taken if metal is contaminated: see section 6.

Prolonged inhalation of tin fumes or dusts, or ingestion of tin compounds can result in tin poisoning. Symptoms include abdominal pain or colic, constipation, nausea, joint and muscle pains, and muscular weakness. Severe cases of overexposure may lead to central nervous systems disorders, characterized by somnolence, stupor, and ultimately death.

Bismuth is not considered a toxic or dangerous material, however, it is always good practice to maintain good housekeeping procedures and wash thoroughly.

4. FIRST AID MEASURES

N/A

5. FIRE, EXPLOSION DATA AND MEASURES

FLAMMABILITY: Solid, massive form of material is not combustible under ordinary fire conditions.

AUTO-IGNITION: Information not available.

FLASH POINT: Information not available.

FLAMMABLE LIMITS: Information not available.

EXTINGUISHING MEDIA: Use special mixtures of dry chemicals. Do not use water or moist sand. Fire fighters should wear self-contained breathing apparatus and protective clothing.

EXPLOSION AND VAPORS: Fire and explosion hazards are moderate when material is in the form of dust and exposed to heat or flames, chemical reaction, or contact with powerful oxidizers.

6. ACCIDENTAL RELEASE MEASURES

No special precautions are necessary for spills of bulk material. If large quantities of dust are spilled, remove by vacuuming with a "HEPA" filter or wet sweeping to prevent heavy concentrations of airborne dust. Clean-up personnel should wear respirators and protective clothing.

7. HANDLING AND STORAGE

HANDLING: Use good housekeeping practices to prevent accumulations of dust and to keep airborne dust concentrations at a minimum. Avoid breathing dust or fumes.

STORAGE: Store material away from incompatible materials, and keep dust away from sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general and local exhaust ventilation to keep airborne concentrations of dust or fumes below the tlv.

PERSONAL PROTECTIVE EQUIPMENT (PPE) DURING PRODUCT USE

EYE PROTECTION: Approved safety glasses or goggles should be worn when working with dusty material and molten metal. Safety stations should be provided in close proximity to work areas.

RESPIRATORY PROTECTION: Employees should wear OSHA or NIOSH approved respirators for protection against airborne dust or fumes. Full protective clothing should be worn by workers exposed to heavy concentrations of dust.

SKIN PROTECTION: Showering should be required before changing into street clothes. Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis.

OTHER PROTECTION: Pre-employment and periodic medical evaluations should be provided. Attention should be directed toward skin, eyes, respiratory tract, blood, kidneys, pulmonary function, and neurologic health. Chest x-rays should be included if symptoms are present.

Food should not be consumed in the work area. No smoking in work area. Hands and face must be washed before eating or smoking. Cosmetics should not be applied in areas where this product is used.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: silver to gray metal

PHYSICAL STATE: solid

ODOR: none

SOLUBILITY: insoluble in water

PH: N/A

BOILING POINT: N/A

SPECIFIC GRAVITY: 8.721

9. PHYSICAL AND CHEMICAL PROPERTIES (continued)**MELTING POINT:** 281°F**VAPOR DENSITY:** not volatile**VAPOR PRESSURE:** not volatile**EVAPORATION RATE:** N/A**10. STABILITY AND REACTIVITY****STABILITY:** Solid, massive form of material is not combustible under ordinary fire conditions.**CONDITIONS TO AVOID:** Dust presents moderate fire and explosion hazards.**MATERIALS TO AVOID:** Material may be incompatible with acids, bases, and oxidizers. Molten metal may react violently with water. For additional information, users should consult data sheets on individual component elements.**11. TOXICOLOGICAL INFORMATION**

BASED ON NFPA AND NPCA SYSTEMS

HEALTH: 2 **FLAMMABILITY:** 0 **REACTIVITY:** 0**12. ECOLOGICAL INFORMATION**

N/A

13. DISPOSAL CONSIDERATIONS

Metal can be reclaimed for refuse. Follow federal, state, and local regulations regarding disposal.

14. TRANSPORT INFORMATION

N/A

15. REGULATORY INFORMATION

N/A

16. OTHER INFORMATION

The information contained herein is based on data considered to be accurate; however, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third party persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the material safety data sheet.

Additionally, vendor assumes no responsibility for injury to vendee or third party persons proximately caused by abnormal use of this material even if reasonable safety procedures are followed.

Vendee assumes the risk in use of this material.

CREATION DATE	CREATED BY	
03/2002	B. Teegardin	
REVISION DATE	REVISED BY	REASON FOR REVISION
03/22/2013	R. Fessler	Content Review
08/13/2014	R. Fessler	Content Review