

MATERIAL SAFETY DATA SHEET

I PRODUCT IDENTIFICATION

Trade Name: Zinc Telluride **Formula:** ZnTe
Chemical Family: Metal Telluride **CAS #:** 1315-11-3

II HAZARDOUS INGREDIENTS

Percent: 100 **OSHA PEL:** Not Set **TLV:** Not Set 0.1 mg/m³ (Te)

III PHYSICAL DATA

Boiling Point: No Data **Melting Point:** 1238.5 °C
Density (gm/cc): 6.34 @ 15 °C **% Volatiles by Volume:** N/A
Reaction with Water: Prolonged contact yields H₂ & H₂Te. **Solubility in H₂O:** Decomposes
Appearance and Odor: Grey or brownish-red powder; ruby-red crystals by sublimation.

IV FIRE AND EXPLOSION HAZARDS DATA

Flammability: Non-Flammable

Flammable Limits: Upper: N/A Lower: N/A

Extinguishing Media: Dry chemical, CO, or graphite.

Special Fire Fighting Procedures: Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

Unusual Fire & Explosion Hazards: When heated to decomposition, it may emit toxic fumes.

V HEALTH HAZARD INFORMATION

Routes of Entry: Inhalation; powder form. Skin and ingestion.

Effects of Overexposure:

Inhalation: May cause sneezing, coughing, difficulty breathing, nausea and irritation of the respiratory tract.

Dermal: May cause irritation, itching and dermatitis.

Eye: May cause burning sensation, irritation, redness and watering of the eyes if comes in contact.

Other: Zinc Compounds: Zinc is not inherently a toxic element. However, when heated it evolves a fume oxide which, when inhaled fresh, can cause a disease known as "brass founder", "ague" or "brass chills", sweet taste, throat dryness, cough, weakness, generalized aching, fever, nausea and vomiting. Zinc oxide dust, which is not freshly formed, is virtually innocuous. There is no cumulative effect to the inhalation of zinc fumes. Workers in zinc refining have been reported as suffering from a variety of non-specific intestinal, respiratory and nervous symptoms. Ulceration of the nasal septum and eczematous dermatosis are also reported.

Tellurium Compounds: Impact a garlic-like odor to the breath and sweat. Heavy exposures may result in headache, drowsiness, metallic taste, loss of appetite and nausea. Various tellurium salts may also produce similar symptoms. Large doses can be fatal.

Medical Conditions Generally Aggravated by Exposure: Respiratory and skin disorders.

Carcinogenicity: Experimental TER.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush eyes with lukewarm water for 15 minutes. Seek medical attention.

INHALATION: Remove to fresh air. Seek medical attention. Administer oxygen if breathing is difficult.

SKIN: Brush material off skin. Wash affected area with soap and water. Seek medical attention.

INGESTION: Give 1-2 glasses of milk and induce vomiting. Seek medical attention.

VI REACTIVITY DATA

Stability: Stable

Incompatibility (Material to Avoid): N/A

Hazardous Decomposition Products: H₂, H₂Te, Zn, Te

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Heat, flame, moisture and incompatible materials.

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear a self-contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure that proper ventilation is available. Vacuum up spill using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

Waste Disposal Method: Dispose of in accordance with Local, State and Federal Waste Disposal Regulations.

VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Wear a NIOSH-approved dust-mist-fume cartridge respirator.

Ventilation: Local Exhaust: Maintain exposure below TLV level for Te.

Special: Handle in a controlled environment.

Mechanical: Not recommended.

Protective Gloves: Neoprene

Eye Protection: Safety glasses.

Other Protective Equipment: Wear protective clothing to prevent contamination of skin and clothes.

IX SPECIAL PRECAUTIONS

Other Handling and Storage Conditions: Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly after handling and before eating.

Transportation Requirements:

DOT Class: Not Classified

UN Number: Not Classified

IMCO Class: Not Classified

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Issued By: S. Dierks

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