



Super Conductor Materials, Inc.

391 Spook Rock Industrial Park, Suffern, NY 10901 · 845.368.0240 · Fax 845.368.0250 · www.scm-inc.com

Chemtrec: (800) 424-9300
Poison Center: (800) 562-8236
Revision Date: January 8th, 2019

SAFETY DATA SHEET

Identity: Lead telluride

Formula: PbTe

SECTION I - GENERAL INFORMATION

Manufacturer: Super Conductor Materials, Inc.

The information below is believed to be accurate and represents the best information available to Super Conductor Materials, Inc. However, SCM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Molecular weight: 334.79

CAS #	OSHA PEL	ACGIH TLV	%
1314-91-6	0.5mg (Pb) /m3	0.5mg (Pb) /m3	0.0-100.0%

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: N/A

Vapor Pressure (vs. air or mmHg): N/A

Melting Point: 917.00°C – 924.00°C

Specific gravity (water=1): 8.164 g/cm³

Evaporation Rate: N/A

Flash Point: N/A

Solubility in water: Insoluble

Appearance and odor: Metallic crystalline pieces and powder, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non-flammable

Explosive Limits: LEL: N/A

UEL: N/A

Extinguishing Media: Use suitable extinguishing agent for surrounding material and type of fire

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:

When heated to decomposition or if lead telluride comes in contact with acid or acid fumes it may emit toxic fumes of lead.



Super Conductor Materials, Inc.

391 Spook Rock Industrial Park, Suffern, NY 10901 · 845.368.0240 · Fax 845.368.0250 · www.scm-inc.com

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): None

Incompatibility: Acids, strong oxidizing agents, hydrogen peroxide, active metals, sodium and potassium

Hazardous Decomposition or Byproducts: Fumes of lead and tellurium

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization): None

SECTION VI - HEALTH HAZARD DATA

Route of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: No

Sign and Symptoms of Overexposure:

Inhalation: May cause insomnia, depression, dryness of the mouth, nausea, vomiting, diarrhea, metallic taste, loss of appetite, irritability and muscle pain. Chronic lead toxicity may cause: loss of appetite, vomiting, renal malfunction, hyperactivity, mild anemia, liver cirrhosis, brain damage and general intellectual and psychological impairment.

Ingestion: May cause constipation and abdominal pain, colic, tremors, nausea, vomiting, diarrhea, metallic taste, loss of appetite, irritability and muscle pain. Acute lead toxicity may cause: lassitude, vomiting, loss of appetite uncoordinated body movements, convulsions, stupor, coma and death. Acute tellurium toxicity may cause: suppression of sweat, nausea, somnolence, inflammation of the gastric mucosa, intestinal hemorrhage and intense hyperemia of internal organs and finally death from respiratory paralysis. Chronic lead toxicity may cause: loss of appetite, vomiting, renal malfunction, hyperactivity, mild anemia, liver cirrhosis, brain damage and general intellectual and psychological impairment. Chronic tellurium toxicity may cause: digestive disturbance, growth suppression, somnolence and garlic breathe.

Skin: May cause redness, itching and burning.

Eye: May cause redness, itching, burning and watering.

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May cause irritation to the upper respiratory system, insomnia, dryness of the mouth and a metallic taste.

Chronic: May cause chronic lead toxicity. May be toxic to the central and peripheral nervous system affecting the cerebellum, spinal cord, motor and sensory nerves.

Ingestion:

Acute: May cause constipation and abdominal pain, colic, tremors, nausea, vomiting, diarrhea, metallic taste, loss of appetite, irritability and muscle pain. May cause acute lead and tellurium toxicity.

Chronic: May cause anemia, gingival lead line, paralysis in the wrist and permanent neurological injury. May cause chronic lead and tellurium toxicity. May cause nephritis, scarring and shrinking of the kidney tissue.

Skin:

Acute: May cause irritation.

Chronic: May cause dermatitis.

Eyes:

Acute: May cause irritation.

Chronic: No chronic health effects recorded.

Target Organs: Gastrointestinal tract, central nervous system, kidneys blood, skin and gingival taste

Carcinogenicity: NTP? No

IARC Monographs? No

OSHA Regulated? Yes



Super Conductor Materials, Inc.

391 Spook Rock Industrial Park, Suffern, NY 10901 · 845.368.0240 · Fax 845.368.0250 · www.scm-inc.com

Medical Conditions Aggravated by Exposure: Pre-existing lung disorders

Emergency and First Aid Procedures:

- Inhalation:** Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention
- Ingestion:** Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person
- Skin:** Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist
- Eye:** Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste disposal method:

Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious rubber gloves, safety glasses, clothes to prevent contact.

Ventilation:

Local Exhaust: To maintain concentration at low exposure levels.

Mechanical (General): Not Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established