



Super Conductor Materials, Inc.

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

SAFETY DATA SHEET

Identity: Manganese Telluride

Formula: MnTe

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: 182.54

CAS #	OSHA PEL	ACGIH TLV	%
12032-88-1	5mg/m3	5mg/m3	0.0-100.0%

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: NA

Vapor Pressure: NA

Melting Point: NA

Specific Gravity (water=1): N/A

Evaporation Rate: NA

Flash Point: NA

Solubility in water: NE

Appearance and odor: Powder and pieces, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non Flammable

Explosive Limits: LEL: NA UEL: NA

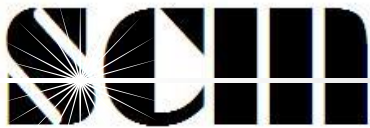
Extinguishing Media: Use suitable extinguishing agent for surrounding materials and type of fire.

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, manganese telluride may emit toxic fumes of tellurium.
May react violently with lithium when heated to 230°C.



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SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (Instability): None

Incompatibility (materials to avoid): Lithium

Hazardous Decomposition or Byproducts: Fumes of Telluride

Hazardous Polymerization: Will not occur.

Conditions to avoid (hazardous polymerization): None

SECTION VI - HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other? No

To the best of our knowledge the chemical, physical and toxicological properties of manganese telluride have not been thoroughly investigated and recorded.

Some manganese compounds are experimental tumorigens. They can cause central nervous and pulmonary system damage by inhalation of fumes and dust. Very few poisonings have occurred from ingestion. Chronic manganese poisoning is a clearly characterized disease which results from inhalation of fumes or dusts of manganese. The central nervous system is the chief site of damage. Exposure to dusts and fumes can possibly increase the incidence of upper respiratory infections and pneumonia. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

Elemental tellurium has relatively low toxicity. It is converted in the body to dimethyl telluride which imparts a garlic-like odor to the breath and sweat. Heavy exposures may, in addition, result in headache, drowsiness, and metallic taste, loss of appetite, nausea, tremors, convulsions, and respiratory arrest. (Sax, Dangerous Properties of Industrial Materials, eighth edition).

Signs and Symptoms of Overexposure:

Inhalation: May cause red, dry throat and mouth, garlic-like odor to breath, sweat and urine, loss of appetite, sleepiness and nausea. Metal fume fever may cause: chills, fever, muscle aches, headache, and dry throat, and sleepiness, weakness in the legs, muscular twitching, nocturnal leg cramps and slowness of speech. Manganism may cause: a slapping gait, cramps, tremors, slurred speech, hallucinations, insomnia and mental confusion. These symptoms resemble Parkinson's disease. Other symptoms of manganism include: inflammation of the kidneys, cirrhosis of the liver, anorexia, muscular fatigue, sexual impotence, reduction of the white blood cells and anemia.

Ingestion: May cause a dry mouth, garlic-like odor to breath and urine, loss of appetite, sleepiness and nausea.

Skin: May cause redness, itching.

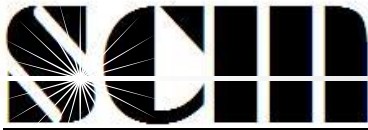
Eye: May cause redness, itching, and watering.

Health Hazards (Acute and Chronic):

Inhalation:

Acute: DANGER-POISON. May cause irritation of the respiratory tract, mucous membranes, dry mouth, garlic odor to breath, sweat and urine, nausea and vomiting. Inhalation of manganese compounds' fine dusts and fumes may cause metal fume fever.

Chronic: Chronic inhalation of manganese compounds' dust particles, approximately 3 um in size, for a period of a few months may cause pulmonary pneumonitis. However, dust particles approximately 5 um in size, inhaled for about 4 hours daily for three months did not produce pneumonitis, but may cause



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fibrotic changes in the lungs, decrease in hemoglobin and a change in erythrocyte levels. May cause anorexia, nausea, depression to the central nervous system and somnolence, manganism, psychic and neurological disorders effecting the central nervous system, to develop (manganism is not fatal but, can cause permanent disability).

Ingestion:

Acute: DANGER-POISON. May cause dry mouth, suppression of sweat, garlic odor to breath and urine.

Chronic: May anorexia, nausea, depression to the central nervous system and somnolence.

Skin:

Acute: May cause irritation.

Chronic: May cause dermatitis.

Eye:

Acute: May cause irritation.

Chronic: Irritant dusts may cause conjunctivitis damage.

Target Organ: May affect the central nervous system, kidneys, respiratory system, and liver.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Medical Conditions Aggravated by Exposure: Pre-existing respiratory disorder

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; keep warm and quiet; seek medical attention.

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 if symptoms persist.

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-Control Measures. Isolate spill area; provide ventilation and extinguishing 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.

Precautions: Avoid breathing dust



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SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

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

Ventilation:

Local Exhaust: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Mechanical (General): 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