



LTS Research Laboratories, Inc.
Safety Data Sheet
Titanium Telluride

1. Product and Company Identification

Trade Name: Titanium Telluride
Chemical Formula: $TiTe_2$
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H250: Catches fire spontaneously if exposed to air.
H301: Toxic if swallowed.

Precautionary Statements: P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P222: Do not allow contact with air
P264: Wash face, hands and any exposed skin thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310+P330: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 3
Flammability: 4
Physical: 1

3. Composition

Chemical Family: Inorganic compound
Additional Names: Titanium ditelluride, Titanium (IV) telluride

Titanium Telluride (TiTe₂):
Percentage: 100 wt%
CAS #: 12067-75-3
EC #: 235-085-5

4. First Aid Procedures

General Treatment: Seek medical attention if symptoms persist.
Special Treatment: None
Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention.

Ingestion: Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person. Seek medical attention.

Skin: Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention.

Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

5. Firefighting Measures

Flammability: Non-flammable, except as powder

Extinguishing Media: Do not use water for metal fires. Use dry sand or approved class D extinguishers.

Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions: Wash thoroughly after handling.
Storage Conditions: Store in a cool dry place in a tightly sealed container. Keep away from sources of ignition. Store apart from materials and conditions listed in section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	0.1 mg/m ³ as Te, long-term value
Threshold Limit Value:	0.1 mg/m ³ as Te, long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Black
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	N/A
Water Solubility:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	5.968 gm/cc
Molecular weight:	303.1 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Strong acids, Strong oxidizing agents, Halogens, Oxygen, Metals, Carbon dioxide, Halocarbons
Incompatible Conditions:	Moisture sensitive, Air sensitive, Pyrophoric: Spontaneously flammable in air, Excess heat
Hazardous Decomposition Products:	Titanium/Titanium oxides, Tellurium/Tellurium oxides

11. Toxicological Information

Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	Toxic if swallowed
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	Rash, Itching, Swelling, Trouble breathing, Tingling of the hands and feet, Dizziness, Lightheadedness, Chest pain, Muscle pain or flushing
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	LD50 Oral - >5000 mg/kg for rat by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Harmful to aquatic life with long lasting effects
Persistent Bioaccumulation Toxicity:	Insoluble in water.
Very Persistent, Very Bioaccumulative:	N/A
Notes:	Not likely mobile in the environment due to its low water solubility.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous as powder only.



Hazard Class: 4.2 Spontaneously combustible solids
Packing Group: II
UN Number: UN3190
Proper Shipping Name: SELF-HEATING SOLID, INORGANIC, N.O.S (Titanium Telluride)

15. Regulatory Information

Sec 302 Extremely Hazardous: N/A
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: N/A

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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