

1. Product and Company Identification

Trade Name:	Tantalum telluride
Chemical Formula:	TaTe <sub>2</sub>
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	Stanford Advanced Materials
Street:	23661 Birtcher Dr.
City:	Lake Forest
State:	California
Zip:	92630
Country:	USA
Tel #:	(949) 407-8904

2. Hazards Identification

Signal Word: Danger



Hazard Statements:  
 H315: Causes skin irritation  
 H319: Causes serious eye irritation  
 H332: Harmful if inhaled  
 H335: May cause respiratory irritation

Precautionary Statements:  
 P261 Avoid breathing dust/fume/vapor  
 P280: Wear protective gloves/protective clothing/eye protection/face protection  
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P312: Call a POISON CENTER or doctor/physician if you feel unwell  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
 P405: Store locked up  
 P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):	Powder	Bulk
Health:	2	1
Flammability:	1	0
Physical:	1	0

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### 3. Composition

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Chemical Family:	Ceramic
Additional Names:	Tantalum(IV) telluride, Tantalum ditelluride
Tantalum telluride (TaTe <sub>2</sub> ):	
Percentage:	100 wt%
CAS #:	12067-66-2
EC #:	235-083-4

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### 4. First Aid Procedures

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General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation: Ingestion:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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### 5. Firefighting Measures

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Flammability:	Non-flammable, except as powder
Extinguishing Media:	Do not use water for metal fires – use CO <sub>2</sub> , sand, extinguishing powder.
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.

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### 6. Accidental Release Measures

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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.

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### 7. Handling and Storage

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Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. 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.

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## 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	0.1 mg/m <sup>3</sup> as Te, long-term value
Threshold Limit Value:	0.1 mg/m <sup>3</sup> as Te, long-term value
Special Equipment:	None
Respiratory Protection:	Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	White/Dark, silver grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	9.4 g/cc
Molecular weight:	436.15 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Acids, Bases, Halogens, Interhalogens, Oxidizing agents
Incompatible Conditions:	None
Hazardous Decomposition Products:	Hydrogen telluride, Tantalum oxide, Metal oxide fume

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	Causes serious eye damage
Skin:	Causes irritation
Ingestion:	May cause irritation
Inhalation:	Harmful
Chronic:	N/A
Signs & Symptoms: Aggravated	N/A
Medical Conditions:	N/A
Median Lethal Dose:	83 mg/kg for rat by mouth
Median Lethal Concentration:	>2420 mg/m <sup>3</sup> /4hr
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	N/A

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### 13. Disposal Considerations

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

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### 14. Transportation Data

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Hazardous: Hazardous as powder only.



Hazard Class: 6.1 Toxic substances  
Packing Group: III  
UN Number: UN3284  
Proper Shipping Name: Tellurium compound, solid, n.o.s. (Tantalum telluride)

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### 15. Regulatory Information

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Sec 302 Extremely Hazardous: No  
Sec 304 Reportable Quantities: N/A  
Sec 313 Toxic Chemicals: Yes

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### 16. Other Information

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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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