



XI'AN FUNCTION MATERIAL GROUP CO., LTD
Material Safety Data Sheet
Tantalum Telluride

1. Product and Company Identification

Trade Name: Tantalum telluride
Chemical Formula: TaTe₂

Manufacturer/Supplier: XI'AN FUNCTION MATERIAL GROUP CO., LTD
Street: No. 69, Gazelle Valley, High-Tech Zone
City: XI'AN
State: Shaanxi
Zip Code: 710077
Country: China
Tel #: +86-29-88993870/+86-13519132051

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 |

3. Composition

Chemical Family: Ceramic
Additional Names: Tantalum(IV) telluride, Tantalum ditelluride

Tantalum telluride (TaTe₂):
Percentage: 100 wt%
CAS #: 12067-66-2
EC #: 235-083-4

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.
Ingestion: 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

5. Firefighting Measures

Flammability: Non-flammable, except as powder
Extinguishing Media: Do not use water for metal fires – use CO₂, 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.

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. 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: | 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. |

9. Physical and Chemical Characteristics

| | |
|---------------------------|--|
| 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 |

10. Reactivity

| | |
|-----------------------------------|---|
| 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 |

11. Toxicological Information

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

12. Ecological Information

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

13. Disposal Considerations

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

14. Transportation Data

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)

15. Regulatory Information

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

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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