

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Manufacturer/Supplier:

Stanford Advanced Materials
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I. PRODUCT IDENTIFICATION

Trade Name: Aluminum Telluride
Chemical Family: Metal telluride
CAS #: 12043-29-7
Formula: Al₂Te₃

II. HAZARDOUS INGREDIENTS

Hazardous Components: Aluminum Telluride
%: 0-100
OSHA/PEL: .1 mg (Te)/m³
ACGIH/TLV: .1 mg (Te)/m³

HMIS Ratings: Health: 2 Flammability: 0 Reactivity: 0 Protective Equipment:
E: glasses, gloves,
respirator

III. PHYSICAL DATA

Boiling Point (°C): N/E or N/A
Melting Point: N/E or N/A
Specific Gravity: N/E
Vapor Pressure: N/A
Vapor Density: N/A
Solubility in H₂O: Insoluble
% Volatile: N/E or N/A

Appearance and Odor: Grey powder and pieces, no odor

IV. FIRE AND EXPLOSION HAZARDS DATA

Flash Point: N/E or N/A

Method Used: Non-flammable

Explosive Limits: Lower: N/A **Upper:** N/A

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

Special Fire Fighting Procedures: Firefighters must wear full face, self-contained breathing apparatus and 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, aluminum telluride emits toxic fumes of tellurium.

V. HEALTH HAZARD INFORMATION

Effects of Exposure:

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

Aluminum compounds have many commercial uses and are commonly found in industry. Many of these materials are active chemically and thus exhibit dangerous toxic and reactive properties.

Inhalation of fine aluminum oxide particles is associated with Shaver's disease.

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, metallic taste, loss of appetite, nausea, tremors, convulsions, and respiratory arrest (Sax, Dangerous Properties of Industrial Materials, eighth edition).

Acute Effects:

Inhalation: May cause irritation to the respiratory system, a dry mouth, garlic odor to breath, sweat and urine.

Ingestion: May cause a dry mouth, suppression of sweat, garlic odor to breath and urine.

Skin: May cause irritation and itching.

Eye: May cause irritation.

Chronic Effects:

Inhalation: May cause anorexia, nausea, depression, somnolence and pulmonary fibrosis.

Ingestion: May cause anorexia, nausea, depression and somnolence.

Skin: May cause dermatitis.

Eye: No chronic health effects recorded.

Target Organs: May affect the skin and central nervous system.

Medical Conditions Generally Aggravated by Exposure: Pre-existing skin disorders.

Carcinogenicity: NTP: No IARC: No OSHA Regulated: No

Routes of Entry: Inhalation, skin, eyes, ingestion

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove victim to fresh air, keep warm and quiet, give oxygen if breathing is difficult and seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting, seek medical attention immediately. 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 for 15 minutes, seek medical attention if symptoms persist.

EYE: Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

VI. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility: Strong acids

Hazardous Decomposition Products: Fumes of tellurium.

Hazardous Polymerization: Will not occur.

VII. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear appropriate respiratory and protective equipment specified in Section VIII. 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 proper disposal. Take care not to raise dust.

Waste Disposal Method: Dispose in accordance with Local, State and Federal regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Wear a NIOSH-approved dust respirator.

Ventilation: Use local exhaust to maintain concentration at or below PEL, TLV. General exhaust is not recommended.

Protective Gloves: Rubber gloves

Eye Protection: Safety Glasses

Other Protective Equipment: Wear protective clothing to prevent contamination.

IX. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Store in a cool, dry area, Wash thoroughly after handling. Store in tightly sealed container.

Work 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 and smoking. do not blow dust off clothing or skin with compressed air. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

DOT Regulations:

Hazard Class: 6.1

Identification Number: UN3288

Packing Group: III

Proper Shipping Name: Toxic solid, inorganic, n.o.s.

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