

# **MATERIAL SAFETY DATA SHEET**

## **I. PRODUCT IDENTIFICATION**

### **Manufacturer/Supplier:**

Stanford Advanced Materials

23661 Birtcher Dr.

Lake Forest, CA 92630

U.S.A

Tel: (949) 407-8904

**Product Name:** Nickel Telluride

**Formula:** NiTe

**CAS Number:** 12142-88-0

## **II. HAZARDOUS INGREDIENTS**

<b>Hazardous Components:</b>	Nickel	Tellurium Compounds
<b>Percent (%):</b>	0-100	0-100
<b>OSHA/PEL:</b>	1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
<b>ACGIH/TLV:</b>	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

## **III. PHYSICAL DATA**

**Boiling Point:** N/E

**Melting Point:** 860 °C

**Solubility in H<sub>2</sub>O:** Insoluble

**Appearance and Odor:** Grey granules, no odor.

## **IV. FIRE AND EXPLOSION HAZARD DATA**

**Flash Point:** N/A

**Autoignition Temperature:** N/E

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

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

**Special Firefighting 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 Hazard:** When heated to decomposition, nickel telluride may emit toxic metal oxide fumes.

## **V. HEALTH HAZARD INFORMATION**

### **Effects of Exposure:**

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

Nickel is a confirmed carcinogen with experimental carcinogenic, neoplastigenic, tumorigenic and teratogenic data. Poison by ingestion, intratracheal, intraperitoneal, subcutaneous and intravenous routes. An experimental teratogen. Hypersensitivity to nickel is common and can cause allergic contact dermatitis, pulmonary asthma, conjunctivitis and inflammatory reactions around nickel containing medical implants and prosthesis.

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

**Inhalation:** May cause cancer by inhalation.

**Ingestion:** Harmful if swallowed.

**Skin:** May cause sensitization by skin contact. Irritant to skin and mucous membranes.

**Eye:** May irritate eyes.

**Carcinogenicity:** **NTP:** Yes **IARC:** Yes **OSHA:** Yes

### **EMERGENCY AND FIRST AID PROCEDURES:**

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

**INGESTION:** Seek medical attention immediately.

**SKIN:** Wash affected area with soap and water and rinse thoroughly. Seek immediate medical attention.

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

## **VI. REACTIVITY DATA**

**Stability:** Stable

**Conditions to Avoid:** None known

**Incompatibility (Materials to Avoid):** Oxidizing agents

**Hazardous Decomposition Products:** Toxic metal oxide fumes

**Hazardous Polymerization:** Will not occur

## **V. SPILL OR LEAK PROCEDURES**

**Steps to Be Taken in Case Material is Released or Spilled:** Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

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

## **VII. SPECIAL PROTECTION INFORMATION**

**Respiratory Protection:** Use suitable respirator when high concentrations are present.

**Ventilation:** Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Protective Gloves:** Impervious gloves

**Eye Protection:** Safety glasses

**Other Protective Equipment:** Protective work clothing.

## **IX. SPECIAL PRECAUTIONS**

**Precautions to Be Taken in Handling and Storage:** Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Open and handle container with care.

**Work Practices:** Implement engineering and work practice controls to reduce and maintain concentration of exposure. 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. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

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