

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Cadmium telluride
CAS #: 1306-25-8
FORMULA: CdTe
SYNONYM: Cadmium monotelluride

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	1306-25-8	100	0.002mg	

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Oral toxicity is high. Inhalation of dust may cause metallic taste, cough, chest pain, fever, chills, pulmonary edema, liver and kidney damage. Causes cancer. Reproductive effector.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation

EYE CONTACT: May cause slight to mild irritation of the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: Inhalation of any dust or fumes can lead to chills, coughing, headache, shortness of breath, chest pains, and pulmonary edema.

INGESTION: Ingestion may lead to sudden nausea, vomiting, bloody diarrhea, weakness, convulsions, and death.

CHRONIC HEALTH EFFECTS: Prolonged exposure to cadmium compounds may result in kidney damage, anemia, pulmonary fibrosis, emphysema, perforation of the nasal septum, loss of smell, male reproductive effects, and an increased risk of cancer of the lungs, prostate, and liver.

ACUTE HEALTH EFFECTS: Inhalation of dust may cause metallic taste, cough, chest pain, fever, chills, pulmonary edema, liver and kidney damage. Harmful by inhalation, in contact with skin and if swallowed.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: none

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: carbon dioxide, foam or dry powder

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit toxic fumes containing cadmium.

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Small spills can be mixed with vermiculite, sodium carbonate or other suitable non combustible adsorbent and swept up.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container in a cool dry place.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: black lumps

MOLECULAR WEIGHT: 240

MELTING POINT (DEG. C.): none

BOILING POINT: no data

VAPOR PRESSURE: no data

SPECIFIC GRAVITY: 6.2

SOLUBILITY IN WATER: insoluble

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization
CONDITIONS TO AVOID: none
INCOMPATIBILITY: mineral acids and oxidizing agents
DECOMPOSITION PRODUCTS: tellurium oxide and cadmium oxide

SECTION 11 Toxicological Information

RTECS DATA: Intraperitoneal (rat); LD50: 2820mg/kg. Oral (mouse); LD: >15g/kg. Intraperitoneal (mouse); LD50: 2100mg/kg.

MUTAGENIC EFFECTS: no data

TETRAOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Cadmium compounds, Class 6.1, UN 2570, PG III

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Title compound : See category N078 for reporting.

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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