

**CADMIUM TELLURIDE
SAFETY DATA SHEET**

DATE OF LAST REVISION: 06/19/15

Section 1: Identification

Product Name: Cadmium Telluride
CAS Number: 1306-28-8 / **EC Number:** 215-149-9
Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110
For more information call: 412-469-8466
(Monday - Friday 9:00-5:00 EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Warning



Hazard Statements: H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled.

Precautionary Statements: P261: Avoid breathing dust/fume/vapor
P280: Wear protective gloves/protective clothing/eye protection/face protection
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301 + P312: IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

**CADMIUM TELLURIDE
SAFETY DATA SHEET**

HMIS Health Ratings (0-4):

Health:	2
Flammability:	0
Physical	1

Section 3: Composition/Information on Ingredients

Chemical characterization: Ceramic

Additional Names: Intran-6

Percentage: 100 wt%

CAS# Description: 1306-28-8

EC number: 215-149-9

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing.

Inhalation: Remove to fresh air. If required, give artificial respiration. Seek medical advice.

Ingestion: Seek medical attention.

Section 5: FIRE FIGHTING MEASURES

Flammability: Non-flammable

Special 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.

Extinguishing Media: No special restrictions - use suitable extinguishing agent for surrounding material and type of fire.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: 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.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed

**CADMIUM TELLURIDE
SAFETY DATA SHEET**

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.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits:	0.005 mg/m ³ as Cd, long-term value
Threshold Limit Value:	0.01 mg/m ³ as Cd, long-term value 0.002 mg/m ³ respirable fraction, 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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Color:	Black
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	1041°C
Density:	6.2 g/cc
Molecular Weight:	240.01 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Oxidizing Agents, Acids
Chemical Stability:	Stable under recommended storage conditions
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal Oxide Fume

CADMIUM TELLURIDE
SAFETY DATA SHEET

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes irritation

Skin: Danger through skin absorption, harmful.

Ingestion: Harmful

Inhalation: Harmful

Chronic: Cadmium and cadmium compounds are highly toxic and experimental carcinogens. Exposure affects the respiratory tract, kidneys, and liver. Ingestion may cause nausea, salivation, vomiting and diarrhea. Ingestion or inhalation of cadmium/cadmium compounds may be fatal. The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals: Behavioral - tremor. Behavioral - Changes in motor activity (specific assay). Nutritional and Gross Metabolic - Weight loss or decreased weight gain.

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: IARC-1: carcinogenic to humans: sufficient evidence of carcinogenicity.
EPA-B1: Probable human carcinogen, limited evidence of carcinogenicity from epidemiologic studies.
ACGIH A2: Suspected human carcinogen: Agent is carcinogenic in experimental animals at dose levels, by routes of administration, at sites, of histologic types, or by mechanisms considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.
NTP-K: Known to be carcinogenic; sufficient evidence from human studies.

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: High

Persistent Bioaccumulation Toxicity: No

Very persistent, Very Bioaccumulative: No

Comments: May cause long lasting harmful effect on aquatic life. Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach any water sources. Danger to drinking water if even extremely small quantities leak into the ground.

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORT INFORMATION

Hazardous: Hazardous for transportation

**CADMIUM TELLURIDE
SAFETY DATA SHEET**



Hazard Class: 9 Miscellaneous dangerous substances and articles
Packing Group: III
UN Number: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Cadmium Telluride)

Section 15: REGULATORY INFORMATION

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

Other Regulations, limitations and prohibitive regulations: Refer to 29CFR1910.1027 for regulations concerning cadmium and cadmium compounds.

Section 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.