

**CADMIUM SULFIDE  
SAFETY DATA SHEET**

DATE OF LAST REVISION: 06/18/15

**Section 1: Identification**

**Product Name:** Cadmium Sulfide  
**CAS Number:** 1306-23-6 / **EC Number:** 215-147-8  
**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:** Danger



**Hazard Statements:**

H302: Harmful if swallowed.  
H341: Suspected of causing genetic defects.  
H350: May cause cancer  
H361: Suspected of damaging fertility of the unborn child.  
H372: Causes damage to the lung, the kidneys, the reproductive system and the blood through prolonged or repeated exposure. Route of exposure: Oral.

**Precautionary Statements:**

P260: Do not breathe dust/fume/gas/mist/vapours/spray  
P281: Use personal protective equipment as required.  
P301 + P312: IF SWALLOWED: Call a poison center or doctor/physician if you feel unwell.  
P308 + P313: If exposed or concerned: Get medical advice/attention  
P405: Store locked up.  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

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**HMIS Health Ratings (0-4):**

Health:	2
Flammability:	0
Physical	1

**Section 3: Composition/Information on Ingredients**

**Chemical characterization:** Ceramic

**Additional Names:** Cadmium (II) sulfide

**Percentage:** 100 wt%

**CAS# Description:** 1306-23-6

**EC number:** 215-147-8

**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

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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<sup>3</sup> as Cd, long-term value

**Threshold Limit Value:** 0.01 mg/m<sup>3</sup> as Cd, long-term value  
0.002 mg/m<sup>3</sup> 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:** Orange

**Odor:** Odorless

**Water Solubility:** Insoluble

**Boiling Point:** N/A

**Melting Point:** 980°C

**Density:** 4.82 g/cc

**Molecular Weight:** 144.464 g/mol

**Section 10: STABILITY AND REACTIVITY**

**Reactivity:** Oxidizing Agents, Acids

**Chemical Stability:** Stable under recommended storage conditions

**Incompatible Conditions:** None

**Hazardous Decomposition Products:** Sulfur oxides, Hydrogen sulfide, Cadmium oxide

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**Section 11: TOXICOLOGICAL INFORMATION**

**Potential Health Effects:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation

**Ingestion:** Harmful

**Inhalation:** May cause irritation

**Chronic:** Causes damage to the lung, the kidneys.

**Signs & Symptoms:**

N/A

**Aggravated Medical Conditions:**

N/A

**Median Lethal Dose:**

1166 mg/kg for mouse by mouth

7080 mg/kg for rat by mouth

**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.

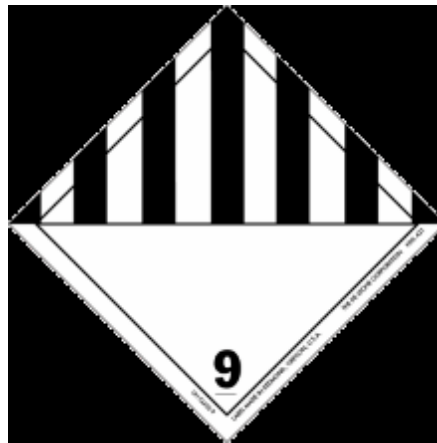
**Section 13: DISPOSAL CONSIDERATIONS**

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

**Section 14: TRANSPORT INFORMATION**

**Hazardous:** Hazardous for transportation

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**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 selenide)

**Section 15: REGULATORY INFORMATION**

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

**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.