

CADMIUM OXIDE
SAFETY DATA SHEET

DATE OF LAST REVISION: 06/18/15

Section 1: Identification

Product Name: Cadmium Oxide
CAS Number: 1306-19-0 / **EC Number:** 215-146-2
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:

H330 Fatal if inhaled
H341: Suspected of causing genetic defects
H350: May cause cancer
H361: Suspected of damaging fertility of the unborn child
H372: Causes damage to organs through prolonged or repeated exposure

Precautionary Statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray
P284: Wear respiratory protection
P281: Use personal protective equipment as required.
P320: Specific treatment is urgent
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:	3
Flammability:	0
Physical	1

Section 3: Composition/Information on Ingredients

Chemical characterization: Ceramic

Additional Names: Cadmium (II) oxide, Cadmium monoxide

Percentage: 100 wt%

CAS# Description: 1306-19-0

EC number: 215-146-2

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 treatment.

Section 5: FIRE FIGHTING MEASURES

Flammability: Non-flammable, except as powder.

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.

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Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed 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 as Cd, 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:	Nitrile rubber, NBR 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:	Red-brown
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	1430°C
Sublimation point:	1559°C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	8.15 g/cc
Molecular Weight:	128.41 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Oxidizing Agents, Magnesium/magnesium alloys
Chemical Stability:	Stable under recommended storage conditions
Incompatible Conditions:	None
Hazardous Decomposition Products:	Cadmium Oxide

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Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation

Ingestion: May cause irritation

Inhalation: Fatal

Chronic: Causes damage to organs through prolonged or repeated exposure.

Signs & Symptoms:

N/A

Aggravated Medical Conditions:

N/A

Median Lethal Dose:

72 mg/kg for rat by mouth

Median Lethal Concentration:

45 mg/m³/1 hr for rat by inhalation

Carcinogen:

May cause cancer.

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.

Reproductive toxicity:

Suspected of damaging fertility of the unborn child.

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: High

Persistence Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: Very toxic for aquatic organism. 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 products 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

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Section 14: TRANSPORT INFORMATION

Hazardous: Hazardous for transportation



Hazard Class: 6.1 Toxic substances.
Packing Group: III
UN Number: UN2570
Proper Shipping Name: Cadmium compounds (Cadmium oxide)

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.