



XI'AN FUNCTION MATERIAL GROUP CO., LTD
Material Safety Data Sheet
Cadmium Sulfide

1. Product and Company Identification

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|------------------------|--|
| Trade Name: | Cadmium sulfide |
| Chemical Formula: | CdS |
| Manufacturer/Supplier: | XI'AN FUNCTION MATERIAL GROUP CO., LTD |
| Street: | No. 69, Gazelle Valley, High-Tech Zone |
| City: | XI'AN |
| State: | Shaanxi |
| Zip Code: | 710077 |
| Country: | China |
| Tel #: | +86-29-88993870/+86-13519132051 |

2. Hazards 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 or 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

HMIS Health Ratings (0-4):

| | |
|---------------|---|
| Health: | 2 |
| Flammability: | 0 |
| Physical: | 1 |

3. Composition

Chemical Family: Ceramic
Additional Names: Cadmium(II) sulfide

Cadmium sulfide (CdS):
Percentage: 100 wt%
CAS #: 1306-23-6
EC #: 215-147-8

4. First Aid Procedures

General Treatment: Seek medical attention if symptoms persist.
Special Treatment: None
Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion: Seek medical attention
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability: Non-flammable
Extinguishing Media: No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. 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.

6. Accidental Release Measures

If Material Is Released/Spilled: 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.

7. Handling and Storage

Handling Conditions: Wash thoroughly after handling.
Storage Conditions: 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.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits: 0.005 mg/m³ as Cd, long-term value
Threshold Limit Value: 0.01 mg/m³ as Cd, long-term value
0.002 mg/m³ 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: Rubber gloves
Eye Protection: Safety glasses or goggles
Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color: Orange
Form: Powder, Granules, Pellets, Sputtering target, Custom parts
Odor: Odorless
Water Solubility: Insoluble
Boiling Point: N/A
Melting Point: 980 °C
Flash Point: N/A
Autoignition Temperature: N/A
Density: 4.82 g/cc
Molecular weight: 144.464 g/mol

10. Reactivity

Stability: Stable under recommended storage conditions
Reacts With: Acids, Oxidizing agents
Incompatible Conditions: None
Hazardous Decomposition Products: Sulfur oxides, Hydrogen sulfide, Cadmium oxide

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

Germ cell mutagenicity: Suspected of causing genetic defects

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.

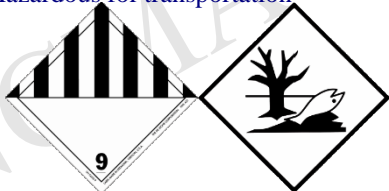
12. Ecological Information

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| Aquatic Toxicity: | High |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| Notes: | 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. |

13. Disposal Considerations

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

14. Transportation Data

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|-----------------------|--|
| Hazardous: | Hazardous for transportation  |
| Hazard Class: | 9 miscellaneous dangerous substances and articles |
| Packing Group: | III |
| UN Number: | UN3077 |
| Proper Shipping Name: | Environmentally hazardous substances, solid, n.o.s. (Cadmium sulfide) |

15. Regulatory Information

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

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.

Document Last Revised: 06/18/2016