

LTS Research Laboratories, Inc.
Safety Data Sheet
Cadmium Tungsten Oxide

1. Product and Company Identification

Trade Name: Cadmium tungsten oxide
Chemical Formula: CdWO₄
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word:

Warning



Hazard Statements:

H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/clothing/eye protection/face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
P391 Collect spillage.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Health Ratings (0-4):

Health: 3
Flammability: 0
Physical: 1

3. Composition

Chemical Family: Ceramic
Additional Names: Cadmium tungstate, Cadmium(II) tungstate,
Cadmium(II) tungsten oxide

Cadmium tungsten oxide (CdWO₄):
Percentage: 100 wt%
CAS #: 7790-85-4
EC #: NIL

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, except as powder
Extinguishing Media: No special restrictions – use suitable extinguishing agent for
surrounding material and type of fire. Do not use water for metal fires –
use CO₂, sand, extinguishing powder.
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

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|------------------------------|---|
| 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: | For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| 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

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|---------------------------|--|
| Color | White |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Insoluble |
| Boiling Point: | N/A |
| Melting Point: | N/A |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | N/A |
| Molecular weight: | N/A |

10. Reactivity

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|-----------------------------------|---|
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Acids, Bases, Oxidizing agents |
| Incompatible Conditions: | None |
| Hazardous Decomposition Products: | Cadmium/cadmium oxides, Tungsten oxide |

11. Toxicological Information

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| Potential Health Effects: | |
| Eyes: | Causes serious irritation |
| Skin: | Harmful |
| Ingestion: | Harmful |
| Inhalation: | Harmful |
| Chronic: | N/A |
| Signs & Symptoms: | N/A |
| Aggravated Medical Conditions: | N/A |
| Median Lethal Dose: | N/A |
| Carcinogen: | IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity. NTP-K: Known to be carcinogenic: sufficient evidence from human studies. OSHA: OSHA specifically regulated carcinogen |

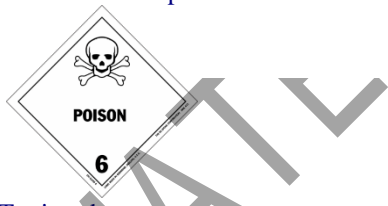
12. Ecological Information

| | |
|--|---|
| Aquatic Toxicity: | High |
| Persistent 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 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. |
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| Hazard Class: | 6.1 Toxic substances. |
| Packing Group: | III |
| UN Number: | UN2570 |
| Proper Shipping Name: | Cadmium compounds (Cadmium tungsten oxide) |

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.

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