

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Cadmium Oxide Powder Technical

**Synonyms:** cadmium oxide

**CAS Number:** 1306-19-0

**Grade/Purity:** Technical

**Product Type:** Specialty Chemicals

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer/Supplier:** Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574

**Information:** 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

**Emergency:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Signal Word:** Danger

**GHS Pictograms:**



**Hazard Statements:**

H330	Fatal if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

**Precautionary Statements:**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust, fume, gas, mist, vapours or spray.
P264	Wash hands and face 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.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice or attention.
P310	Immediately call a POISON CENTER or doctor.
P314	Get medical advice or attention if you feel unwell.

P320	Specific treatment is urgent (see first-aid information on this label).
P321	Specific treatment (see first-aid information on this label).
P330	Rinse mouth.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local, regional, national, and international regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	% MIN	% MAX	CAS #	EINECS# / ELINCS#	FORMULA	MOLECULAR WEIGHT
Cadmium Oxide Powder	99.5	100.5	1306-19-0	215-146-2	CdO	128.41 g/mol

### 4. FIRST-AID MEASURES

<b>Eyes</b>	Dermal/Eye Exposure:
<b>Skin</b>	Rinse skin with plenty of water or shower.
<b>Inhalation</b>	Signs and Symptoms of Acute Cadmium Oxide Exposure: The following signs and symptoms may be noted following exposure to cadmium oxide: cough, dyspnea (shortness of breath), dry mouth or increased salivation, abdominal pain, nausea, vomiting, bronchitis, and chest pain. Pulmonary edema may develop. Vertigo (dizziness), fever, and profuse sweating are common. Victims may collapse.
<b>Ingestion</b>	Ingestion Exposure:

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Media</b>	Use water spray, alcohol-resistant foam, dry chemical, or CO <sub>2</sub> . Use measures appropriate to local circumstances.
<b>Unsuitable Media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Protective Equipment</b>	Wear self-contained breathing apparatus and full protective clothing.
<b>Combustion Products</b>	May include carbon oxides and other toxic fumes. See Section 10.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental</b>	Prevent leakage or spillage from entering drains, sewers, or waterways.
<b>Containment &amp; Cleanup</b>	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

### 7. HANDLING AND STORAGE

<b>Safe Handling</b>	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
<b>Safe Storage</b>	Store in a cool, dry, well-ventilated area. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

**Occupational Exposure Limits:**

AGENCY	EXPOSURE LIMIT
OSHA PEL	0.005 mg/m <sup>3</sup> TWA (as Cd)
NIOSH REL	Ca (carcinogen — lowest feasible concentration)

IDLH	9 mg/m <sup>3</sup> (as Cd)
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<b>Eyes</b>	Wear chemical safety goggles or face shield.
<b>Skin</b>	Wear chemical-resistant gloves and protective clothing.
<b>Inhalation</b>	Use a NIOSH-approved air-purifying respirator with cartridges appropriate for the contaminant. For higher exposures or confined spaces, use supplied-air or a powered air-purifying respirator (PAPR).

Exposure limits sourced from NIOSH Pocket Guide and OSHA 29 CFR 1910.1000. Hazard classification from ECHA Classification and Labelling Inventory (CLP Annex VI).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Crystalline solid
<b>Odor</b>	Characteristic
<b>Median Particle Size</b>	Not Available
<b>Particle Size Distribution</b>	Not Available
<b>Particle Shape</b>	Not Available
<b>Surface Area</b>	Not Available
<b>Dustiness</b>	Not Available
<b>Hygroscopicity</b>	Not Available
<b>pH</b>	Not Available
<b>Melting Point</b>	125°C (257°F)
<b>Boiling Point</b>	240°C (464°F)
<b>Flash Point</b>	Not Available
<b>Vapor Pressure</b>	Not Available
<b>Specific Gravity</b>	1.5
<b>Solubility</b>	Soluble in water
<b>Molecular Formula</b>	CdO
<b>Molecular Weight</b>	128.41 g/mol

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Hazardous Reactions</b>	None under normal processing conditions.
<b>Conditions to Avoid</b>	Heat, sparks, open flame, and incompatible materials.
<b>Incompatible Materials</b>	Strong oxidizing agents, strong acids, strong bases.
<b>Decomposition Products</b>	May produce carbon oxides and other toxic fumes when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** See Section 2 for GHS hazard classification.

<b>IARC</b>	Not listed as carcinogen.
<b>NTP</b>	Not listed as carcinogen.
<b>OSHA</b>	Not listed as carcinogen.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Algae ErC50: 0.018 mg/L (72 h, <i>Pseudokirchneriella subcapitata</i> (ErC50, OECD TG 201) — 0.018 mg/L = 18 µg/L); Daphnia EC50: 0.75 mg/L (48 h, <i>Daphnia magna</i> (immobilization, OECD TG 202))
<b>Persistence</b>	Cadmium non-degradable; very toxic to aquatic life with long-lasting effects (H410) — Not applicable (inorganic metal compound)

<b>Bioaccumulation</b>	Not Available
<b>Mobility in Soil</b>	Cd mobility strongly pH-dependent (increases under acidic conditions)

### 13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

### 14. TRANSPORT INFORMATION

<b>US DOT</b>	UN2570, Cadmium Compounds, n.o.s. (Cadmium Oxide), 6.1, PG I
<b>IMDG</b>	UN2570, Cadmium Compounds, n.o.s. (Cadmium Oxide), 6.1, PG I
<b>IATA/ICAO</b>	UN2570, Cadmium Compounds, n.o.s. (Cadmium Oxide), 6.1, PG I
<b>Marine Pollutant</b>	No

### 15. REGULATORY INFORMATION

Regulatory listings not yet on file in this system; consult OSHA, EPA TSCA, EPCRA TRI, and California OEHHA directly.

<b>SARA 311/312</b>	See Section 2 for hazard classifications.
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### 16. OTHER INFORMATION

**Revision Date:** 07/01/2026

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