

<a href="#">Cadmium Oxide</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Nanoparticle Dispersion</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Nanoparticles / Nanopowder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Particles</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Pellets</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Pieces</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Powder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Rotatable Sputtering Target</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Shots</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Sputtering Target</a>	<a href="#">Pricing &gt;</a>
<a href="#">Cadmium Oxide Tablets</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	CdO
<b>Pubchem CID</b>	14782
<b>MDL Number</b>	MFCD00010921
<b>EC No.</b>	215-146-2
<b>IUPAC Name</b>	Oxocadmium
<b>Beilstein/Reaxys No.</b>	N/A
<b>SMILES</b>	[Cd]=O
<b>InchI Identifier</b>	InChI=1S/Cd.O
<b>InchI Key</b>	CXKCTMHTOKXKQT-UHFFFAOYSA-N
<b>Signal Word</b>	Danger
<b>Hazard Statements</b>	H301-H330-H341-H350-H361fd-H372-H410
<b>Hazard Codes</b>	T+,N
<b>Precautionary Statements</b>	P201-P260-P280-P304 + P340 + P310-P308 + P313
<b>Flash Point</b>	Not applicable
<b>Risk Codes</b>	45-26-48/23/25-50/53-62-63-68
<b>Safety Statements</b>	53-45-60-61
<b>RTECS Number</b>	EV1925000

Transport Information	UN 2570 6.1 / PGI
WGK Germany	2
GHS Pictograms	<a href="#">GHS09 Environment</a>  <a href="#">GHS08 Health Hazard</a>  <a href="#">GHS06 Skull and Crossbones</a> 

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## SAFETY DATA SHEET

Date Accessed: 04/19/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #1306-19-0

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

### SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
GHS06 Skull and crossbones  
Acute Tox. 2 H330 Fatal if inhaled.  
GHS08 Health hazard  
Muta. 2 H341 Suspected of causing genetic defects.  
Carc. 1B H350 May cause cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.  
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.  
Hazards not otherwise classified  
No data available  
Label elements  
Labelling according to Regulation (EC) No 1272/2008  
The substance is classified and labeled according to the CLP regulation.  
Hazard pictograms



GHS06 GHS08  
Signal word: Danger  
Hazard statements  
H330 Fatal if inhaled.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
Precautionary statements  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P284 Wear respiratory protection.  
P281 Use personal protective equipment as required.  
P320 Specific treatment is urgent (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
WHMIS classification  
D1A - Very toxic material causing immediate and serious toxic effects  
D2A - Very toxic material causing other toxic effects  
Classification system  
HMIS ratings (scale 0-4)  
(Hazardous Materials Identification System)  
HEALTH  
FIRE  
REACTIVITY  
3  
0  
1  
Health (acute effects) = 3  
Flammability = 0  
Physical Hazard = 1  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances

CAS No. / Substance Name:

1306-19-0 Cadmium oxide

Identification number(s):

EC number: 215-146-2

Index number: 048-002-00-0

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

If inhaled:

Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.

Seek immediate medical advice.

In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.

If swallowed:

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No data available

Indication of any immediate medical attention and special treatment needed

No data available

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### **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing agents

Product is not flammable. Use fire-fighting measures that suit the surrounding fire.

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Cadmium oxide  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Use personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Environmental precautions:  
Do not allow product to enter drains, sewage systems, or other water courses.  
Methods and materials for containment and cleanup:  
Dispose of contaminated material as waste according to section 13.  
Ensure adequate ventilation.  
Prevention of secondary hazards:  
No special measures required.  
Reference to other sections  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling  
Precautions for safe handling  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.  
Open and handle container with care.  
Information about protection against explosions and fires:  
The product is not flammable  
Conditions for safe storage, including any incompatibilities  
Requirements to be met by storerooms and receptacles:  
No special requirements.  
Information about storage in one common storage facility:  
Store away from magnesium/magnesium alloys  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well-sealed containers.

Specific end use(s)  
No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

1306-19-0 Cadmium oxide (100.0%)

PEL (USA) Long-term value: 0.005 mg/m<sup>3</sup> as Cd; see 29 CFR 1910.1027

REL (USA) See Pocket Guide App. A

TLV (USA) Long-term value: 0.01 0.002\* mg/m<sup>3</sup> as Cd; \*respirable fraction; BEI

EL (Canada) Long-term value: 0.01 mg/m<sup>3</sup> as Cd; ACIGH A1, IARC 1

Additional information: No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use self-contained respiratory protective device in emergency situations.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) 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.

Protection of hands: Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Material of gloves

Nitrile rubber, NBR

Penetration time of glove material (in minutes): No

data available  
Eye protection: Safety glasses  
Body protection: Protective work clothing.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance:

Form: Powder or solid in various forms

Color: Red-brown

Odor: Odorless

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 1430 °C (2606 °F)

Boiling point/Boiling range: No data available

Sublimation temperature / start: 1559 °C (2838 °F)

Flammability (solid, gas): No data available.

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: No data available.

Explosion limits:

Lower: No data available

Upper: No data available

Vapor pressure: N/A

Density at 20 °C (68 °F): 8.15 g/cm<sup>3</sup> (68.012 lbs/gal)

Relative density: No data available.

Vapor density: N/A

Evaporation rate: N/A

Solubility in Water (H<sub>2</sub>O): Insoluble

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A

Kinematic: N/A

Other information

No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions

No dangerous reactions known

Conditions to avoid

No data available  
Incompatible materials:  
Magnesium/magnesium alloys  
Hazardous decomposition products:  
Cadmium oxide

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity: Fatal if inhaled.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:

Oral LD50 72 mg/kg (rat)

Inhalative LC50/1H 45 mg/m<sup>3</sup>/1H (rat)

Skin irritation or corrosion: May cause irritation

Eye irritation or corrosion: May cause irritation

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: Suspected of causing genetic defects.

Carcinogenicity: May cause cancer.

IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity.

EPA-B1: Probable human carcinogen, limited evidence of carcinogenicity from epidemiologic studies.

Carcinogen as defined by OSHA.

ACGIH A2: Suspected human carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) 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.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

Reproductive toxicity:

Suspected of damaging fertility or the unborn child.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure:

Causes damage to organs through prolonged or repeated exposure.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.



Subacute to chronic toxicity:  
The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.  
Additional toxicological information:  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
Carcinogenic categories  
OSHA-Ca (Occupational Safety & Health Administration)  
Substance is listed.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity  
Aquatic toxicity:  
No data available  
Persistence and degradability  
No data available  
Bioaccumulative potential  
No data available  
Mobility in soil  
No data available  
Ecotoxicological effects:  
Remark:  
Very toxic for aquatic organisms  
Additional ecological information:  
Do not allow product to reach groundwater, water courses, or sewage systems, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
May cause long lasting harmful effects to aquatic life.  
Avoid transfer into the environment.  
Very toxic for aquatic organisms  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A  
Other adverse effects  
No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Recommendation  
Consult official regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)

UN number: 2570

Class: 6.1

Packing group: I

Proper shipping name: Cadmium compounds

(Cadmium oxide non-pyrophoric)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 2570

Class: 6.1

Packing group: I

EMS-No: F-A, S-A

Proper shipping name: CADMIUM COMPOUND

(Cadmium oxide non-pyrophoric)

IATA

UN number: 2570

Class: 6.1

Packing group: I

Proper shipping name: Cadmium compound

(Cadmium oxide non-pyrophoric)

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

1306-19-0 Cadmium oxide

California Proposition 65

Prop 65 - Chemicals known to cause cancer

1306-19-0 Cadmium oxide

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

For use only by technically qualified individuals.  
Other regulations, limitations and prohibitive regulations  
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.  
This substance is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH).  
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.  
Substance is not listed.  
Annex XIV of the REACH Regulations (requiring Authorisation for use)  
Substance is not listed.  
Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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