



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cadmium (II) Oxide**

PRODUCT NUMBER: 1360

CAS NUMBER: 1306-19-0

SYNONYMS: Cadmium monoxide

MANUFACTURER:

ProChem, Inc.
826 Roosevelt Road
Rockford, IL 61109

PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H301	Toxic if swallowed.
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.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/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.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P330	Rinse mouth.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 3 Chronic: * Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 3 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May cause slight to mild irritation of the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: Inhalation of dust and fumes can lead to cough, headache, shortness of breath, chest pains, pulmonary edema, and death.

INGESTION: Ingestion may lead to sudden nausea, vomiting, bloody diarrhea, weakness, convulsions, and death.

CHRONIC HEALTH EFFECTS: Prolonged exposure to low concentrations of cadmium may result in kidney damage, anemia, pulmonary fibrosis, emphysema, perforation of the nasal septum, loss of smell, male reproductive effects, and an increased risk of cancer of the prostate, lungs, and liver.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: CdO

Molecular Weight: 128.41

CHEMICAL NAME	CAS#	%
Cadmium Oxide	1306-19-0	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use firefighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Cadmium oxide

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust.

SECTION 7 HANDLING AND STORAGE (Cont.)

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic. Store under inert gas.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Cadmium Oxide	0.002 mg/m ³	TWA	ACGIH
	0.01 mg/m ³	TWA	ACGIH

TWA: Time Weighted Average over 8 hours of work.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Reddish-brown powder

ODOR: None

MOLECULAR WEIGHT: 128.41

BOILING POINT: 1559° C (subl.)

MELTING POINT: >1500° C

SPECIFIC GRAVITY: 8.15

VAPOR DENSITY: No data available

SOLUBILITY IN WATER: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Not available

INCOMPATIBILITY: Strong mineral acids, bases, and active metals. Oxidizing agents.

DECOMPOSITION PRODUCTS: Cadmium oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral- rat – 63 – 259 mg/kg. LC50 Inhalation – rat – male and female – 4 h – 0.056 mg/l. LD50 Oral – rat – 72 mg/kg.

CARCINOGENIC EFFECTS: Known to be a human carcinogen

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

RTECS: EV1925000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES: Immobilization LC50 – Daphnia magna (Water flea) – 0.75 mg/l – 48 h. (OECD Test Guideline 202)

TOXICITY TO ALGAE: Growth inhibition EC50 – Pseudokirchneriella subcapitata (Selenastrum capricornutum)-0.018 mg/l – 72h. (OECD Test Guideline 201)

TOXICITY TO BACTERIA: Respiration inhibition NOEC – Sludge Treatment – 0.353 mg/l-3h.

Very toxic to aquatic life.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN2570	IATA: UN2570
Cadmium compounds	Cadmium compound
(Cadmium oxide)	(Cadmium oxide)
Class 6.1	Class 6.1
PG II	PG II

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Cadmium oxide non-pyrophoric

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Cadmium oxide (non-pyrophoric)

MASSACHUSETTS RIGHT TO KNOW: Cadmium oxide (non-pyrophoric)

PENNSYLVANIA RIGHT TO KNOW: Cadmium oxide (non-pyrophoric)

NEW JERSEY RIGHT TO KNOW: Cadmium oxide (non-pyrophoric)

CALIFORNIA PROP. 65: WARNING! Cadmium oxide (non-pyrophoric) is known to cause cancer.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE REVISED: 02/22
SDS DEPT.