

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: CADMIUM OXIDE

CAS Number: 1306-19-0

1. IDENTIFICATION:

Product Code : 93540

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:**Hazard classification****Health hazards**

Acute toxicity, Inhalation : Category 2

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 1B

Reproductive toxicity : Category 2

**Specific target organ
toxicity - repeated
exposure** : Category 1

**Short-term (acute) aquatic
hazard** : Category 1

**Long-term (chronic) aquatic
hazard** : Category 1

Labels elements :

Hazard symbol : 

Signal word : Danger

Hazard statement : Fatal if inhaled
Suspected of causing genetic defects.
May cause cancer.
Suspected of damaging fertility. Suspected of damaging the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.

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- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
- Keep container tightly closed. Ground/ bond container and receiving equipment.
- Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- Use only non-sparking tools. Take precautionary measures against static discharge.
- Response** : IF ON SKIN (or hair): Rinse skin with water/ shower.
- IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
Cadmium Oxide	1306-19-0	NLT 99.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
- Skin contact** : Get medical attention if symptoms persist.
- Eye contact** : Flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Most important symptoms/effects, acute and delayed** : The most important known symptoms and effects are described in the labelling.
- Indication of immediate medical attention and special treatment needed** : No data available.

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5. FIRE FIGHTING MEASURES:

- General information** :
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media** : For this substance/mixture no limitations of extinguishing agents are given.
- Specific hazards arising from the chemical** : Cadmium/cadmium oxides Not combustible. Ambient fire may liberate hazardous vapors.
- Special protective equipment and precautions for firefighters**
- Special firefighting procedures** : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

- Personal precautions, protective equipment and emergency procedures** : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
- Methods and material for containment and cleaning up** : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.
- Notification Procedures** : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

- Precautions for safe handling** : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe the mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.
- Conditions for safe storage, including any incompatibilities** : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Handle under nitrogen, protect from moisture.

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Storage class : Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials.

8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Appropriate engineering**

controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator. Chemical Respirator with organic vapor cartridge.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance : Dark brown crystal/ powder.

Odor : Odorless

Solubility : Slightly soluble in water.

Formula : CdO

Molecular Weight : 128.41 g/mol

Density : 8.15 g/cm³ at 25°C

pH : No data available

% Volatiles by volume @ 21C (70F) : No data available

Boiling Point : No data available

Melting Point : 870 - 950°C

Flash Point : No data available

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Vapor Density (Air=1) : No data available
Vapor Pressure (mm Hg) : No data available
Evaporation Rate (BuAc=1) : No data available

10. STABILITY AND REACTIVITY:

Reactivity : No data available
Chemical stability : Material is stable under ambient conditions..
Possibility of hazardous reactions : **Violent reactions possible with:** Light metals
Risk of explosion with: Aluminum, perchlorates, hydrogen sulphide, hydrogen peroxide, Salts of hydrazine, magnesium, with Heat.
Conditions to avoid : No data available
Incompatible materials : No data available
Hazardous decomposition products : In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product : No data available.
Dermal Product : No data available.
Inhalation Product : LC 50 (Rat): 0.056 mg/kg.
Repeated dose toxicity Product : No data available.
Skin corrosion/irritation Product : No data available.
Serious eye damage/eye irritation Product : No data available.
Respiratory or skin sensitization Product : No data available.
Carcinogenicity Product : Carcinogen
Possible human carcinogen
Germ cell mutagenicity
In vitro Product : In vitro tests showed mutagenic effects
Reproductive toxicity Product : Suspected human reproductive toxicant
Specific target organ toxicity - single exposure Product : No data available.

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Specific target organ toxicity - repeated exposure Product : No data available.
Aspiration hazard Product : No data available.
Other effects : None known.
Additional Information : Kidney injury may occur., Damage to the lungs

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Toxicity to daphnia and other aquatic invertebrates : Static test LC50 - Daphnia magna (Water flea) – 0.75 mg/l - 48 h
Toxicity to algae : Static test EC50 - Pseudokirchneriella subcapitata (algae) - 0,018 mg/l - 72 h
Toxicity to bacteria : Respiration inhibition NOEC - Sludge Treatment - 0,353 mg/l - 3 h

Chronic hazards to the aquatic environment

Fish Product : No data available.
Aquatic invertebrates Product : No data available.
Toxicity to Aquatic Plants Product: : No data available.
Persistence and degradability

Biodegradation Product : No data available.
BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product : No data available.
Mobility in soil : No data available.
Other adverse effects : No data available.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.
Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

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14. TRANSPORT INFORMATION:

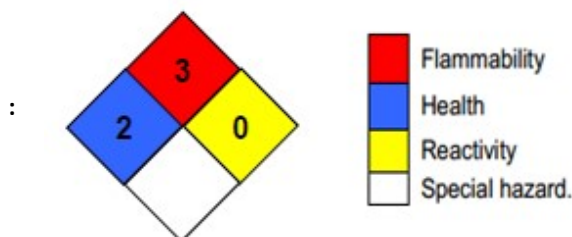
	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR/RID	UN 2570	Cadmium Oxide	6.1	I	No
IMDG	UN 2570	Cadmium Oxide	6.1	I	No
IATA	UN 2570	Cadmium Oxide	6.1	I	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
 Safety, health and environmental regulations/legislation specific for the substance or mixture
 No Data Available.

16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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