Cadmium Chloride, Anhydrous

MATERIAL SAFETY DATA SHEET

INTEGRA Chemical Company
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)

Product Identification

Product Name: CADMIUM CHLORIDE, Anhydrous
Synonyms: Cadmium dichloride
Chemical Formula: CdCl₂
Formula Weight: 183.32
Chemical Family: 
Integra Product Numbers: C006.10

Hazard Overview

HMIS Rating: 3-0-0-F 
NFPA Rating: NE
Warning Label: DANGER! POISON!

May be fatal if swallowed or inhaled. Exceptional health hazard. Use only with adequate protective equipment and ventilation. Do not breath dust. Do not allow contact with skin eyes or clothing. Wash thoroughly after handling. Possible cancer hazard. Handle with due care.

Components

Component | CAS # | %
-----------|-------|-----
Cadmium chloride, anhydrous | 10108-64-2 | 100

Physical Data

Boiling Point: 960 °C 
Melting Point: 568 °C 
Vapor Pressure: 10 mm Hg @656°C 
Solubility: 140 g in 100 ml water @20°C 
Appearance and Odor: Colorless crystals or white granular powder.

Fire and Explosion Data

Flash Point: NA 
Auto-ignition Temperature: NA 
Flammable Limits (% by volume in air): Upper: NA Lower: NA 
Fire Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Firefighting Procedures: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards: Fire conditions may liberate toxic and noxious fumes.

Health Hazard Information

Effects of Overexposure

Skin Contact:

...
Health Hazard Information

Effects of Overexposure

- **Skin Contact:** Contact may cause skin irritation.
- **Eye Contact:** Contact may be irritating to the eyes.
- **Ingestion:** Harmful or fatal if swallowed. Cadmium salts may cause severe and possibly fatal poisoning. Symptoms include nausea, vomiting, diarrhea, abdominal pain, choking, dizziness and excessive salivation. 10 -20 mg of soluble cadmium salts have produced severe toxic symptoms when ingested. May cause kidney and liver damage.
- **Inhalation:** Harmful if inhaled. Cadmium may be absorbed through the respiratory tract. Symptoms include respiratory tract irritation, headache, metallic taste and cough. Severe exposure may produce shortness of breath, chest pain, weakness, fever, chills, sweating nausea and muscular pain. Onset of symptoms may be delayed. May cause liver and kidney damage.
- **Chronic Effects of Overexposure:** Chronic exposure to cadmium may cause kidney damage, anemia, emphysema, pulmonary damage, loss of smell, damage to the nasal septum, and male reproductive effects.

**Exposure Limits:**

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
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</thead>
<tbody>
<tr>
<td>Cadmium chloride, anhydrous</td>
<td>0.01 mg/m3</td>
<td>NE</td>
<td>NE</td>
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<tr>
<td>Cadmium chloride, anhydrous</td>
<td>5 µg/m3</td>
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</table>

**Toxicity Data:**

- Cadmium chloride, anhydrous LD50 (oral, rat) 88 mg/kg

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing skin disorders, eye problems or impaired liver, kidney or respiratory functions. Prostrate problems.

**Target Organs:** Liver, kidneys.

**Reproductive Effects:** May cause damage to the male reproductive system.

**Carcinogenicity:** Possible cancer hazard. Risk depends on duration and level of exposure. Handle with due caution.

**Emergency First Aid Procedures**

- **Skin Contact:** Immediately remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek immediate medical attention.
- **Eye Contact:** Flush with water for at least 15 minutes. Seek immediate medical attention.
Emergency First Aid Procedures

Eye Contact:
Inhalation:
Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Ingestion:
Give victim large amounts of water and induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional First aid and Treatment Notes:
No information available

Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur

Incompatibles:
Potassium oxidizer, bromine trifluoride, zinc, selenium, tellurium and hydrogen azide.

Decomposition Products:
Cadmium oxides.

Conditions to Avoid:
Heat, sparks and open flame. Dusting.

Spill and Disposal Procedures

Spill and Leak Procedures:
Wear full protective clothing and a self-contained breathing apparatus. Remove all ignition sources. Carefully sweep or scoop into disposal container in a manner that minimizes dust dispersion. Flush spill area with water. Contain runoff. Do not flush to sewer or storm drain.

Disposal Procedures:
Dispose in accordance with all Local, State and Federal regulations.

Protective Equipment

Ventilation:
Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection:
If ventilation controls do not limit airborne concentrations below PEL and TLV values, an approved high-efficiency particulate respirator must be worn. A full face-piece, supplied air respirator should be on hand for emergencies and other instances where exposure levels are not known.

Skin and Eye Protective Equipment:
Safety goggles, protective clothing and gloves. Maintain an eyewash station and safety shower nearby.

Storage and Handling Precautions

Storage Area: HEALTH HAZARD
Store in a cool, dry well-ventilated area or cabinet dedicated to toxic storage. Isolate away from incompatible materials. Keep containers well closed.
Transportation Information

- **Regulated Material domestic ground transportation**
  - Proper Shipping Name: Cadmium compounds
  - UN or NA Identification number: UN2570
  - Hazard Class and Label: 6.1 Toxic
  - Packing Group: III

- **Regulated Material via Air Transportation**
  - Proper Shipping Name: Cadmium compounds
  - UN Identification Number: UN2570
  - Hazard Class and Label: 6.1 Toxic
  - Packing Group: III
  - Packing Instruction
    - Passenger Aircraft: 619/Y619
    - Cargo Aircraft: 619
    - Max net qty per package:
      - 100/10 kg
      - 200 kg

Regulatory Information

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<tr>
<th>Component</th>
<th>TSCA Inventory</th>
<th>CERCLA RQ</th>
<th>SARA EHS TPQ</th>
<th>SARA 313 Toxic Release de minimus</th>
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<tbody>
<tr>
<td>Cadmium chloride, anhydrous</td>
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<td>10 lbs</td>
<td>☑️ lbs</td>
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<td>SARA Hazard Categories:</td>
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<td>Organic HAP</td>
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**MSDS Revision History:**
- 002 - Changed header phone number
- 003 - Format revisions; updated header phone number
- 004 - Updated Header Information

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