SECTION 1: Identification

1.1. Product identifier

Product name: CADMIUM ACETATE, dihydrate
Product code: CXCD010
Product form: Substance
Physical state: Solid
Formula: C4H6CdO4∙2H2O
Synonyms: CADMIUM DIACETATE
ACETIC ACID, CADMIUM SALT, DIHYDRATE
Chemical family: METAL COMPOUND

1.2. Recommended use of the chemical and restrictions on use

Recommended use: Chemical intermediate
For research use only

1.3. Details of the supplier of the safety data sheet

GELEST, INC.
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral) Category 4 H302
Acute toxicity (dermal) Category 4 H312
Acute toxicity (inhalation:dust,mist) Category 4 H332
Carcinogenicity Category 1A H350
Hazardous to the aquatic environment - Acute Hazard Category 1 H400
Hazardous to the aquatic environment - Chronic Hazard Category 1 H410

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US): 

Signal word (GHS-US): Danger
Hazard statements (GHS-US): H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H350 - May cause cancer
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US): P280 - Wear protective gloves/protective clothing/eye protection/face protection
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing mist
P264 - Wash hands 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
P330 - Rinse mouth
P301+P312 - If swallowed: Call a doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of soap and water
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
2.3. Hazards not otherwise classified (HNOC)
No additional information available

2.4. Unknown acute toxicity (GHS US)
No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Mono-constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>CADMIUM ACETATE, dihydrate</td>
</tr>
<tr>
<td>CAS No</td>
<td>5743-04-4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium acetate, dihydrate</td>
<td>(CAS No) 5743-04-4</td>
<td>95 - 100</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Inhalation), H332</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Carc. 1A, H350</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

First-aid measures after skin contact: Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: May cause cancer.

Symptoms/injuries after inhalation: Harmful if inhaled. May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact: Harmful in contact with skin. May cause skin irritation. Hypersensitivity of the skin to certain cadmium compounds has been demonstrated.

Symptoms/injuries after eye contact: May cause eye irritation.

Symptoms/injuries after ingestion: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms: Positive carcinogenicity and mutagenicity data have been reported for this compound.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
- **Protective equipment**: Wear protective equipment as described in Section 8.
- **Emergency procedures**: Evacuate unnecessary personnel.

6.1.2. For emergency responders
- **Protective equipment**: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
- Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
- **For containment**: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage.
- **Methods for cleaning up**: Sweep or shovel spills into appropriate container for disposal. Collect spillage.

6.4. Reference to other sections
- See Heading 8: Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
- **Precautions for safe handling**: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Do not breathe dust. Avoid dust formation. Use only outdoors or in a well-ventilated area.
- **Hygiene measures**: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities
- **Storage conditions**: Keep container tightly closed. Store locked up.
- **Incompatible materials**: Oxidizing agent.
- **Storage area**: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Cadmium acetate, dihydrate (5743-04-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>OSHA</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
- **Appropriate engineering controls**: Handle in an enclosing hood with exhaust ventilation.
- **Personal protective equipment**: Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- **Hand protection**: Neoprene or nitrile rubber gloves.
- **Eye protection**: Chemical goggles. Contact lenses should not be worn.
- **Skin and body protection**: Wear suitable protective clothing.
- **Respiratory protection**: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
- **Physical state**: Solid
- **Appearance**: Powder.
- **Molecular mass**: 230.49/266.54 g/mol
- **Color**: White.
- **Odor**: No data available
- **Odor threshold**: No data available
- **Refractive index**: No data available
- **pH**: No data available
# CADMIUM ACETATE, dihydrate
## Safety Data Sheet

### Relative evaporation rate (butyl acetate=1)
- No data available

### Melting point
- 254 - 256 °C decomposes

### Freezing point
- No data available

### Boiling point
- No data available

### Flash point
- > 200 °C

### Auto-ignition temperature
- No data available

### Decomposition temperature
- No data available

### Flammability (solid, gas)
- No data available

### Vapor pressure
- No data available

### Relative vapor density at 20 °C
- No data available

### Relative density
- 2.01

### VOC content
- < 2 %

### Solubility
- Water: 347 g/l @ 20°C

### Log Pow
- No data available

### Log Kow
- No data available

### Viscosity, kinematic
- No data available

### Viscosity, dynamic
- No data available

### Explosive properties
- No data available

### Oxidizing properties
- No data available

### Explosion limits
- No data available

### 9.2. Other information
- No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity
- No additional information available

### 10.2. Chemical stability
- Stable.

### 10.3. Possibility of hazardous reactions
- No additional information available

### 10.4. Conditions to avoid
- No additional information available

### 10.5. Incompatible materials
- Oxidizing agent.

### 10.6. Hazardous decomposition products

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity
- Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Dust, mist: Harmful if inhaled.

<table>
<thead>
<tr>
<th>CADMIUM ACETATE, dihydrate (5743-04-4)</th>
<th>ATE US (oral)</th>
<th>360,000 mg/kg body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (dermal)</td>
<td>1100,000 mg/kg body weight</td>
<td></td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>1,500 mg/l/4h</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cadmium acetate, dihydrate (5743-04-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>ATE US (oral)</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
</tr>
<tr>
<td>ATE US (gases)</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
</tr>
</tbody>
</table>

#### Skin corrosion/irritation
- Not classified

#### Serious eye damage/irritation
- Not classified

#### Respiratory or skin sensitization
- Not classified

#### Germ cell mutagenicity
- Not classified

#### Carcinogenicity
- May cause cancer.
Cadmium acetate, dihydrate (5743-04-4)

National Toxicology Program (NTP) Status: 1 - Evidence of Carcinogenicity

Reproductive toxicity: Not classified
STOT-single exposure: Not classified

STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
Symptoms/injuries after inhalation: Harmful if inhaled. May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact: Harmful in contact with skin. May cause skin irritation. Hypersensitivity of the skin to certain cadmium compounds has been demonstrated.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Chronic symptoms: Positive carcinogenicity and mutagenicity data have been reported for this compound.
Reason for classification: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability
LC50 fish 1: 0.0062 mg/l Rainbow trout, donaldson trout (Oncorhynchus mykiss)

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on ozone layer: No additional information available
Effect on the global warming: No known effects from this product.
GWPmix comment: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
UN-No.(DOT): 2570
DOT NA no.: UN2570

14.2. UN proper shipping name
Transport document description: UN2570 Cadmium compounds (CADMIUM ACETATE, dihydrate), 6.1, III
Proper Shipping Name (DOT): Cadmium compounds (CADMIUM ACETATE, dihydrate)
Packing group (DOT): III - Minor Danger
Hazard labels (DOT): 6.1 - Poison

Dangerous for the environment: Yes
CADMIUM ACETATE, dihydrate

Safety Data Sheet

Marine pollutant: Yes

DOT Packaging Non Bulk (49 CFR 173.xxx): 213
DOT Packaging Bulk (49 CFR 173.xxx): 240
DOT Packaging Exceptions (49 CFR 173.xxx): 153
DOT Symbols: G - Identifies PSN requiring a technical name

14.3. Additional information
Emergency Response Guide (ERG) Number: 154
Other information: No supplementary information available.

Transport by sea
DOT Vessel Stowage Location: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 100 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 200 kg

SECTION 15: Regulatory information

15.1. US Federal regulations

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

Cadmium acetate, dihydrate (5743-04-4)

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Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations

Cadmium acetate, dihydrate (5743-04-4)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.3. US State regulations
No additional information available

SECTION 16: Other information

Full text of H-phrases:

- H302: Harmful if swallowed
- H312: Harmful in contact with skin
- H332: Harmful if inhaled
- H350: May cause cancer
- H400: Very toxic to aquatic life
## Abbreviations and acronyms

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling.

### HMIS III Rating

- **Health**: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.
- **Flammability**: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
- **Physical**: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

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Prepared by safety and environmental affairs.

Date of issue: 03/13/2017  
Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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