

**CADMIUM ACETATE, dihydrate**

Safety Data Sheet CXCD010

Date of issue: 03/13/2017

Version: 1.0

**SECTION 1: Identification****1.1. Product identifier**

Product name	: CADMIUM ACETATE, dihydrate
Product code	: CXCD010
Product form	: Substance
Physical state	: Solid
Formula	: $C_4H_6CdO_4 \cdot 2H_2O$
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
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**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](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)**1.4. Emergency telephone number**

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



GHS07

GHS08

GHS09

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

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P322 - Specific treatment (see first aid instructions on this label)  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P391 - Collect spillage  
P405 - Store locked up  
P501 - Dispose of contents/container to licensed waste disposal facility.

### 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

Substance type : Mono-constituent  
Name : CADMIUM ACETATE, dihydrate  
CAS No : 5743-04-4

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

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

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

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.

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### 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

Cadmium acetate, dihydrate (5743-04-4)			
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )		0.01 mg/m <sup>3</sup> Cd
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )		0.2 mg/m <sup>3</sup> Cd

#### 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

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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

Organic acid vapors. Cadmium oxide fumes.

## 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.

CADMIUM ACETATE, dihydrate (5743-04-4)	
ATE US (oral)	360.000 mg/kg body weight
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (dust, mist)	1.500 mg/l/4h
Cadmium acetate, dihydrate (5743-04-4)	
LD50 oral rat	360 mg/kg
ATE US (oral)	360.000 mg/kg body weight
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

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.

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### 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.

### Cadmium acetate, dihydrate (5743-04-4)

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

No additional information available

### 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)  
Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132  
Packing group (DOT) : III - Minor Danger  
Hazard labels (DOT) : 6.1 - Poison



Dangerous for the environment : Yes

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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 : 100 kg  
(49 CFR 173.27)  
DOT Quantity Limitations Cargo aircraft only (49 : 200 kg  
CFR 175.75)

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### CADMIUM ACETATE, dihydrate (5743-04-4)

TSCA Exemption/Exclusion

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)

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)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Poisonous and Deleterious Substances Control Law  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)

### 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

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H410

Very toxic to aquatic life with long lasting effects

### Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: 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.

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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