



# Material Safety Data Sheet

Catalog Number: 100487  
Revision date: 24-Apr-2006

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

Catalog Number: 100487

Product name: L-alpha-GLYCEROPHOSPHORYL CHOLINE, CADMIUM CHLORIDE COMPLEX

**Supplier:**

MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
tel: 440-337-1200

Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components  | CAS Number | Weight %  | ACGIH Exposure Limits:                  | OSHA Exposure Limits: |
|---|------------|-----------|---|-----------------------|
| L-alpha-GLYCEROPHOSPHORYL CHOLINE, CADMIUM CHLORIDE COMPLEX | 64681-08-9 | 90 - 100% | 0.01 mg/m <sup>3</sup> TWA<br>(Cadmium) | None                  |

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Harmful: danger of serious damage to health by prolonged exposure through inhalation, skin contact and if swallowed. , Harmful to flora, fauna, soil organisms and aquatic organisms.

**Category of Danger:**

Harmful , Dangerous for the environment , Carc. cat. 2

**Principle routes of exposure:** Skin

**Inhalation:** Harmful: possible risk of irreversible effects through inhalation.

**Ingestion:** Harmful: danger of serious damage to health if ingested.

**Skin contact:** Harmful: danger of serious damage to health by prolonged skin contact.

**Eye contact:** Risk of serious damage to eyes

**Statements of hazard** HARMFUL IF SWALLOWED. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR INHALED.

**Statement of Spill or Leak - ANSI Label** Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

**Precautions - ANSI Label** Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not breathe vapors or spray mist

## 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Inhalation:** Move to fresh air. Call a physician immediately.

**Skin contact:** Rinse immediately with plenty of water for at least 15 minutes

**Ingestion:** Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious. Induce vomiting if person is conscious.

**Eye contact:** Flush eye(s) immediately with plenty of water. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Protection of first-aiders:** No information available

**Medical conditions aggravated by exposure:** None known

## 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:**

Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam

**Specific hazards:**

Burning produces irritant fumes.

**Unusual hazards:**

None known

**Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Specific methods:**

Water mist may be used to cool closed containers.

**Flash point:**

Not determined

**Autoignition temperature:**

Not determined

**NFPA rating:**

|                    |   |
|--------------------|---|
| NFPA Health:       | 4 |
| NFPA Flammability: | 0 |
| NFPA Reactivity:   | 0 |

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Use personal protective equipment.

**Environmental precautions:**

Prevent product from entering drains.

**Methods for cleaning up:**

Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

**Storage:**

0°C

**Handling:**

Use only in area provided with appropriate exhaust ventilation.

**Safe handling advice:**

Wear personal protective equipment. Remove and wash contaminated clothing before reuse.

**Technical measures/storage conditions:**

Keep container tightly closed in a dry and well-ventilated place.

**Incompatible products:**

Oxidising and spontaneously flammable products

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures:** Ensure adequate ventilation, especially in confined areas.

### PERSONAL PROTECTIVE EQUIPMENT

**Respiratory protection:** Breathing apparatus only if aerosol or dust is formed.

**Hand protection:** Pvc or other plastic material gloves

**Skin and body protection:** Impervious clothing Long sleeved clothing

**Eye protection:** Safety glasses with side-shields

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                  |  |
|----------------------------------|--|
| <b>Appearance and Odor</b>       | Light cream colored  |
| <b>Physical state:</b>           | Powder   |
| <b>Formula:</b>                  | C <sub>8</sub> H <sub>20</sub> CdCl <sub>2</sub> NO <sub>6</sub> P |
| <b>Molecular weight:</b>         | 440.5  |
| <b>Melting point/range:</b>      | No data available at this time.                                    |
| <b>Boiling point/range:</b>      | No Data available at this time.                                    |
| <b>Density:</b>                  | No data available  |
| <b>Vapor pressure:</b>           | No data available  |
| <b>Evaporation rate:</b>         | No data available  |
| <b>Vapor density:</b>            | No data available  |
| <b>Solubility (in water):</b>    | Insoluble  |
| <b>Flash point:</b>              | Not determined   |
| <b>Autoignition temperature:</b> | Not determined   |

## 10. STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Stability:</b>                        | Stable under recommended storage conditions.  |
| <b>Polymerization:</b>                   | None under normal processing.   |
| <b>Hazardous decomposition products:</b> | Cadmium , Chloride/Hydrochloric acid , Phosphorus oxides (PO <sub>x</sub> ) , Sodium oxides (Na <sub>2</sub> O) |
| <b>Materials to avoid:</b>               | Strong oxidising agents   |
| <b>Conditions to avoid:</b>              | Exposure to air or moisture over prolonged periods.   |

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Acute toxicity

##### Components

L-alpha-GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM CHLORIDE  
COMPLEX

#### RTECS Number:

Not Available

#### Selected LD50s and LC50s

Inhalation LC50 Rat : 25 mg/m<sup>3</sup>/30M  
Oral LD50 Rat : 2330 mg/kg  
Oral LD50 Mouse : 890 mg/kg

|                               |   |
|-------------------------------|---|
| <b>Chronic toxicity:</b>      | Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.                         |
| <b>Local effects:</b>         | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.                            |
| <b>Specific effects:</b>      | May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache. |
| <b>Primary irritation:</b>    | No data is available on the product itself.   |
| <b>Carcinogenic effects:</b>  | Possible carcinogen   |
| <b>Mutagenic effects:</b>     | No data is available on the product itself.   |
| <b>Reproductive toxicity:</b> | No data is available on the product itself.   |

##### Components

L-alpha-GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM CHLORIDE  
COMPLEX

#### NIOSH - Health Effects

dust and fume; Lung cancer, prostatic  
cancer, renal system effects

#### NIOSH - Target Organs

respiratory system, kidneys, blood, prostatic  
and lung cancer

## 12. ECOLOGICAL INFORMATION

|                             |   |
|-----------------------------|---|
| <b>Mobility:</b>            | No data available   |
| <b>Bioaccumulation:</b>     | No data available   |
| <b>Ecotoxicity effects:</b> | No data available   |
| <b>Aquatic toxicity:</b>    | May cause long-term adverse effects in the aquatic environment. |

|  |   |  |  |
|--|---|--|--|
| <b>Components</b><br>L-alpha-GLYCEROPHOSPHORYL<br>CHOLINE, CADMIUM CHLORIDE<br>COMPLEX | <b>U.S. DOT - Appendix B -<br/>Marine Pollutan</b><br>Not Listed  | <b>U.S. DOT - Appendix B -<br/>Severe Marine Pollutants</b><br>DOT regulated severe marine<br>pollutant                  | <b>United Kingdom - The Red<br/>List:</b><br>Original entry  |
| <b>Components</b><br>L-alpha-GLYCEROPHOSPHORYL<br>CHOLINE, CADMIUM CHLORIDE<br>COMPLEX | <b>Germany VCI (WGK)</b><br>Not Listed  | <b>World Health Organization<br/>(WHO) - Drinking Water</b><br>0.003 mg/L  | <b>Ecotoxicity - Fish Species<br/>Data</b><br>LC50 (96 hr) rainbow trout<br>(swimup):1.3 ug/L;LC50<br>(96hr) striped bass<br>(fingerlings):2.0 ug/L: |
| <b>Components</b><br>L-alpha-GLYCEROPHOSPHORYL<br>CHOLINE, CADMIUM CHLORIDE<br>COMPLEX | <b>Ecotoxicity - Freshwater<br/>Algae Data</b><br>Not Listed  | <b>Ecotoxicity - Microtox Data</b><br>Not Listed   | <b>Ecotoxicity - Water Flea<br/>Data</b><br>LC50 (96 hr) water flea: 9.9<br>ug/L   |
| <b>Components</b><br>L-alpha-GLYCEROPHOSPHORYL<br>CHOLINE, CADMIUM CHLORIDE<br>COMPLEX | <b>EPA - ATSDR Priority List</b><br>Rank (of 275): 007  | <b>EPA - HPV Challenge<br/>Program Chemical List</b><br>Not Listed   | <b>California - Priority Toxic<br/>Pollutants</b><br>Maximum concentration = 4.3<br>ug/L; continuous<br>concentration = 2.2 ug/L                     |
| <b>Components</b><br>L-alpha-GLYCEROPHOSPHORYL<br>CHOLINE, CADMIUM CHLORIDE<br>COMPLEX | <b>California - Priority Toxic Pollutants</b><br>No human health criteria is being<br>promulgated for these contaminants.<br>However, permit authorities should address<br>these contaminants during the permit<br>process. | <b>California - Priority Toxic Pollutants</b><br>Maximum concentration = 42 ug/L;<br>continuous concentration = 9.3 ug/L |  |

### 13. DISPOSAL CONSIDERATIONS

|   |  |
|---|--|
| <b>Waste from residues / unused products:</b> | Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous. |
| <b>Contaminated packaging:</b>                | Do not re-use empty containers   |

### 14. TRANSPORT INFORMATION

|                              |               |
|------------------------------|---------------|
| <b>UN/Id No:</b>             | Not regulated |
| <b>DOT:</b>                  |               |
| <b>Proper shipping name:</b> | Not Regulated |
| <b>Packing group:</b>        | None          |

**Components**L-alpha-GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM CHLORIDE  
COMPLEX**U.S. DOT - Appendix A Table 1 - Reportable Quantities**

Not Listed

**TDG (Canada):****WHMIS hazard class:**

D2a very toxic materials

**IMDG/IMO****IMDG - Hazard Classifications****IMDG - Regulated Substances****IMDG - Severe Marine Pollutants**

IMDG class or division = 6.1, PP

UN2570

UN2570

**Components**L-alpha-GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM CHLORIDE  
COMPLEX**U.S. DOT - Appendix B - Marine Pollutan**

Not Listed

**U.S. DOT - Appendix B - Severe Marine  
Pollutants**

DOT regulated severe marine pollutant

**IMO-labels:****15. REGULATORY INFORMATION****International Inventories****Components**

L-alpha-GLYCEROPHOSPHORYL CHOLINE, CADMIUM CHLORIDE COMPLEX

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Canada DSL Inventory List -**

Present

**Australia (AICS):**

Present

**Inventory - China:**

Present

**EU EINECS List -**

265-010-1; C8H20CdCl2NO6P

**Korean KECL:**

KE-04397

**Philippines PICCS:**

Present

**U.S. regulations:****Components**L-alpha-  
GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM  
CHLORIDE COMPLEX**California Proposition 65**-  
carcinogen; initial date  
10/1/87  
developmental toxicity;  
initial date 5/1/97  
male reproductive toxicity;  
initial date 5/1/97**Massachusetts Right to  
Know List:**carcinogen; extraordinarily  
hazardous sn 0305**New Jersey Right to  
Know List:****Pennsylvania Right to Know  
List:**environmental hazard; special  
hazardous substance (any  
compound of this substance is  
also an environmental hazard  
including dust, powder and  
fume)

**Components**

L-alpha-  
GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM  
CHLORIDE COMPLEX

**Florida substance List:**

[present]

**Rhode Island Right to Know List:**

Toxic, Carcinogen

**Illinois - Toxic Air Contaminants**

B1 Carcinogen, Present on 0.4 ug/m<sup>3</sup> HLTV (metal and dust)  
Great Waters or Great  
Lakes list

**Connecticut - Hazardous Air Pollutants****Components**

L-alpha-  
GLYCEROPHOSPHORYL  
CHOLINE, CADMIUM  
CHLORIDE COMPLEX

**SARA 313 Emission reporting/Toxic Release of Chemicals**

form R reporting required  
for 0.1% de minimis  
concentration

**CERCLA/SARA - Section NTP: 302 Extremely Haz**

Not Listed

Known Carcinogen

**IARC:**

Monograph 58, 1993;  
(Evaluated as a group)

**SARA 313 Notification:**

The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).

**State Notification:**

The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

**16. OTHER INFORMATION**

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**