

**Vitamin D<sub>3</sub> 500, Feed Grade**

Version 2.0

Revision Date: 28/05/2015

Issue date: 30/05/2015

**Section 1. Identification****Identification of the product**

**Product name:** Vitamin D<sub>3</sub> 500, feed grade  
**Synonym:** Cholecalciferol concentrate Powder  
**Product Code:** 2132050

**Recommended use:** Additive for animal nutrition in premixes and compound feeds

**Manufacturer/supplier identification**

**Manufacturer:** Zhejiang Medicine Co., Ltd., Vitamin Factory  
Paojiang Industrial Zone, 312071 Shaoxing, Zhejiang Province,  
P.R.China  
**Telephone:** +86-575-86023831  
**Fax:** +86-575-86022668  
**E-mail address Responsible:** zmcteco@xcpharma.com

**Emergency Phone:** +86-575-86023831 (office time)

**Section 2. Hazard(s) Identification****GHS Classification:**

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity – oral, Category 4  
Acute toxicity – dermal, Category 4  
Acute toxicity – inhalation, Category 2  
Specific target organ toxicity -repeated exposure, Category 1  
**Environmental hazards** Hazardous to the aquatic environment- CHRONIC. Category 3.  
**Possible hazards:** May cause sensitization by skin contact.  
May cause harm to the unborn child.

**GHS Label element****Hazard Pictograms:**

**Signal word:** Warning

**Hazard statements:** Harmful if swallowed.  
Harmful in contact with skin.  
Harmful if inhaled.  
May causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

**Prevention** Do not breathe dust/fume/gas/mist/ vapors/spray.

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**Response**

Wash hands, hair and skin thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing.  
 If swallowed: Call a poison center/doctor if you feel unwell.  
 Rinse mouth.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing. Seek medical attention/advice if you feel unwell.  
 If on skin: Wash with plenty of water. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse.

**Storage**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

Dispose of contents/container in according with local regulation.

**Other hazards:**

The product is under certain conditions capable of dust explosion.

**Section 3. Composition/information on ingredients**

Vitamin D<sub>3</sub> oil (cholecalciferol) is incorporated in a matrix of gelatin and carbohydrates and stabilized with anti-oxidant BHT.

Ingredients	CAS No.	Vitamin A 1000
Vitamin D <sub>3</sub> oil (cholecalciferol)	67-97-0	~15% (min 500,000IU/g)
Gelatin	-	~20%
Carbohydrates and absorbents	-	~63%
BHT	128-37-0	~1%
Anti-caking agent	-	~1%
Total		100%

**Section 4. First-aid measures****First-aid instructions****Eyes:**

Flush eyes with plenty of water for at least 15 minutes. Seek medical advice if irritation persists.

**Skin:**

Flush exposed area with plenty of water and soap. Remove contaminated clothing and wash before reuse. Seek medical advice if irritation persists.

**Inhalation:**

Remove from area of exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult physician immediately.

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**Ingestion:**

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult physician immediately.

**Most important symptoms or effects, both acute and delayed**

Symptoms: The most important known symptoms and effects are described in section 2 and/or in section 11. Further important symptoms and effects are so far not known.

**Notes to physician:**

Treat according to symptoms.

**Section 5. Fire-fighting measures****Suitable extinguishing media:**

Water spray, foam, carbon dioxide (CO<sub>2</sub>), dry powder.

**Specific hazards:**

Dust explosive. In case of fire and/or explosion do not breathe fumes.

**Specific hazards develop from the fire:**

Carbon oxides may be released in case of fire.

**Protective equipment and precautions for firefighters:**

Wear full fire-fighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus.

**Further information:**

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Section 6. Accidental release measures****Personal precautions:**

Avoid dust formation. Do not breathe dust. Use breathing apparatus if exposed to vapours/dust/aerosol. Ensure adequate ventilation. Use personal protective clothing. Information regarding personal protective measures see, section 8.

**Environmental precautions:**

Do not discharge into drains or water courses.

**Method of cleaning up:**

Sweep/shovel up. Collect in a manner that does not create dust and place into a suitable waste container for disposal.

**Section 7. Handling and storage****Precaution for safe handling:**

- local exhaust ventilation necessary
- take precautionary measures against electrostatic charging
- keep away from sources of ignition
- avoid dust formation;
- Eating, drinking, and smoking in work areas is prohibited.

**Conditions for safe storage:**

- protected from light and humidity;
- keep in a tightly closed container in a dry, and well-ventilated place at the temperature below 15°C

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**Section 8. Exposure controls/Personal protection****Engineering controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

**Personal protective measures:**

- safety glasses with side-shields.
- respiratory protection not necessary during normal operations; in case of very high dust concentrations: particle mask or respirator with independent air supply,
- protective gloves: for example nitrile rubber.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.

**Other protective measures:**

Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

<b>Appearance:</b>	Off white to yellowish
<b>Form:</b>	Micro granular
<b>Odor:</b>	Almost odorless
<b>Odor threshold:</b>	No data available
<b>pH:</b>	Not applicable
<b>Melting point/range:</b>	84.5°C (184.1°F)
<b>Boiling point/range:</b>	Decomposes.
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Flammability (solid/gas):</b>	May form combustible dust concentrations in air.
<b>Vapour pressure:</b>	Not applicable
<b>Vapour density:</b>	Not applicable
<b>Bulk density:</b>	0.60~0.70 g/cm <sup>3</sup>
<b>Solubility:</b>	Practically insoluble in water (20°C).
<b>Partition coefficient: n-octanol/water:</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not applicable
<b>Thermal Decomposition:</b>	No data available
<b>Viscosity:</b>	Not applicable.

**Explosion parameters**

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<b>Maximum explosion pressure, P<sub>max</sub> /MPa</b>	No data available
<b>Maximum rate of pressure rise (dp/dt), max(MPa/s)</b>	No data available
<b>Dust specific measure of explosibility, K<sub>st</sub>(Mpa·m/s)</b>	No data available
<b>Lowest explosion level, LEL(g/cm<sup>3</sup>)</b>	No data available
<b>Min Ignition temperature C (dust cloud), MITC(°C)</b>	No data available
<b>Min Ignition temperature C (dust layer), MITL(°C)</b>	No data available
<b>The minimum ignition energy, MIE/mJ</b>	< 1mJ

The MIE of a powder strongly depends on the particle size distribution and the water content of the tested sample: the finer and the dryer the powder the lower the MIE.

**Section 10. Stability and Reactivity**

<b>Reactivity:</b>	No hazards to be specially mentioned.
<b>Chemical stability:</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions:</b>	Dust may form explosive mixture in air.
<b>Conditions to avoid:</b>	Avoid all sources of ignition: heat, sparks, open flame, generating dust, moisture, static discharges and light.
<b>Incompatible materials:</b>	Incompatible with oxidizing agents, acid chlorides, acid anhydrides.
<b>Hazardous combustion products:</b>	No decomposition if used as directed.

**Section 11. Toxicological information**

<b>Acute toxicity:</b>	Oral, mouse: LD50 = 42.5 mg/kg ; Oral, rat: LD50 = 42 mg/kg; Oral, dog: LD50 = 80 mg/kg. Dermal, rat: LD50 = 61mg/kg Inhalation, rat: LC50 = 0.13-0.38 mg/L, 4hours
<b>Other Toxic Effects on Humans:</b>	Very hazardous in case of ingestion. Hazardous in case of inhalation.
<b>Carcinogenicity:</b>	Not classified
<b>Mutagenicity:</b>	Not classified.
<b>Reproductive toxicity:</b>	Not classified.
<b>STOT- single exposure:</b>	Not classified.
<b>STOT- repeated exposure:</b>	Causes damage to organs through prolonged or repeated exposure.

**Section 12. Ecological information**

Based on the active substance: Vitamin D<sub>3</sub> oil (cholecalciferol), CAS#67-97-0

<b>Ecotoxicity:</b>	No data available
<b>Persistence and degradability:</b>	No data available.

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**Bioaccumulation potential:** No data available.**Mobility in soil:** No data available.**Results of PBT and dvPvB assessment:** No data available.**Section 13. Disposal considerations**

Observe national and local legal requirements.

**Section 14. Transport information****DOT****Basic shipping requirements:**

<b>UN number</b>	2811
<b>Proper shipping name</b>	TOXIC SOLID, ORGANIC, N.O.S.( Vitamin D3 oil (cholecalciferol))
<b>Hazard class</b>	6.1
<b>Packing group</b>	II
<b>Environmental hazards</b>	No

**IATA**

<b>UN number</b>	2811
<b>UN proper shipping name</b>	TOXIC SOLID, ORGANIC, N.O.S.( Vitamin D3 oil (cholecalciferol))
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Environmental hazards</b>	No

**IMDG**

<b>UN number</b>	2811
<b>UN proper shipping name</b>	TOXIC SOLID, ORGANIC, N.O.S.( Vitamin D3 oil (cholecalciferol))
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Environmental hazards</b>	No

**Section 15. Regulatory information****Federal and State Regulations:** TSCA 8(b) inventory: Cholecalciferol**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).**Section 16. Other information**

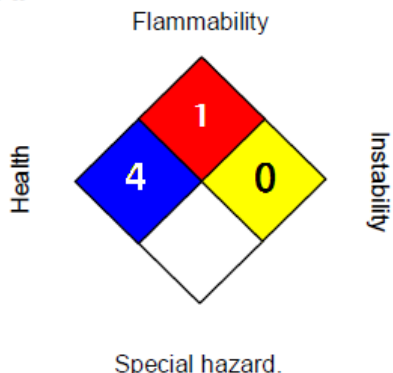
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**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>4</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

*The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.*

**Abbreviations:** ACGIH = American Conference of Governmental Industrial Hygienists. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CPR = Controlled Products Regulations. DSL = Canadian Domestic Substance List. DOT = Department of Transportation. EINECS = European Inventory of New and Existing Chemical Substances. EPA = Environmental Protection Agency. HCS = Hazardous Communication Standard. HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Identification System. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IMDG = International Maritime Dangerous Good. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. SARA = Superfund Amendments and Reauthorization Act. TDG = Transportation of Dangerous Goods. TLV = Threshold Limit Value. TSCA = Toxic Substance Control Act. WHMIS = Workplace Hazardous Materials Information System.