



Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

Vitamin A Acetate Beadlets

Version 2.0

Revision Date: 28/05/2015

Issue date: 30/05/2015

Section 1. Identification

Identification of the product

Product name: Vitamin A Acetate Beadlets
Specification: Vitamin A 1000; Vitamin A 650; Vitamin A 500
Product Code: 2112100, 2112650, 2112050
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:

Health hazards Category 1B
Environmental hazards Hazardous to the aquatic environment- CHRONIC. Category 4.
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: May cause an allergic skin reaction.
May damage the unborn child.
May cause long lasting harmful effects to aquatic life

Precautionary statements

Prevention

Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid release to the environment.

Response

If exposed or concerned: Get medical advice/attention.
IF ON SKIN (on hair): Wash with plenty of soap and water.



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Storage

Take off contaminated clothing and wash before reuse.

Disposal

Store locked up.

Dispose of contents/container to hazardous or special waste collection point.

Other hazards:

The product is under certain conditions capable of dust explosion.

Section 3. Composition/information on ingredients

Vitamin A acetate is incorporated in a matrix of gelatin and carbohydrates and stabilized with anti-oxidants ethoxyquin and BHT.

Ingredients	CAS No.	Concentration		
		Vitamin A 1000	Vitamin A 650	Vitamin A 500
Vitamin A Acetate	127-47-9	~40% (min 1,000,000IU/g)	~30% (min 650,000 IU/g)	~22% (min 500,000 IU/g)
Gelatin	-	~30%	~30%	~30%
Carbohydrates and absorbents	-	~24%	~35%	~43%
Ethoxyquin/BHT	-	~5%	~4%	~4%
Anti-caking agent	-	~1%	~1%	~1%
Total		100%	100%	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.

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.



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Section 5. Fire-fighting measures

Suitable extinguishing media:	Water spray, foam, carbon dioxide (CO ₂), 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:	<ul style="list-style-type: none">- 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:	<ul style="list-style-type: none">- protected from light and humidity;- keep in a tightly closed container in a dry, and well-ventilated place at the temperature below 15°C

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:	<ul style="list-style-type: none">- 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,

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Other protective measures:

- protective gloves: for example nitrile rubber.

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**

Appearance:	Yellowish to brownish.
Form:	powder/granular
Odor:	mild
Odor threshold:	No data available
pH:	Not applicable
Melting point/range:	Not applicable
Boiling point/range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability (solid/gas):	May form combustible dust concentrations in air.
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Bulk density:	0.60~0.70 g/cm ³
Solubility:	Practically insoluble in water (20°C).
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	Not applicable
Thermal Decomposition:	No data available
Viscosity:	Not applicable.

Explosion parameters

Maximum explosion pressure, P_{max} /MPa	0.48
Maximum rate of pressure rise (dp/dt), max(MPa/s)	5.7
Dust specific measure of explosibility, K_{st}(Mpa·m/s)	01.5
Lowest explosion level, LEL(g/cm³)	50~100
Min ignition temperature C (dust cloud), MITC(°C)	
Product particle size	480
Sieved sample, 100% <0.10mm	400
Min ignition temperature C (dust layer), MITL(°C)	>400
The minimum ignition energy, MIE/mJ	
Product particle size	250-500
Sieved sample, 100% <0.10mm	50-75

The MIE of a powder strongly depends on the particle size distribution and the water content of the tested

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sample: the finer and the dryer the powder the lower the MIE.

Section 10. Stability and Reactivity

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

Section 11. Toxicological information

Acute toxicity:	Acute oral toxicity (LD50): > 2000 mg/kg bw (Rat)
Skin irritation:	Skin contact causes irritation.
Eye irritation:	Not irritating to the eyes. Dust contact with eyes can lead to mechanical irritation.
Sensitization:	May cause sensitization by skin contact.
Carcinogenicity:	Not classified
Mutagenicity:	Not classified. In the majority of tests performed (bacteria/microorganisms/ cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays. The product has not been fully tested.
Reproductive toxicity:	May cause harm to the unborn child.
STOT- single exposure:	Not classified
STOT- repeated exposure:	Not classified

Section 12. Ecological information

Based on the active substance: Vitamin A acetate, CAS#127-47-9.

There is a high probability that the product is not acutely harmful to aquatic organisms.

Ecotoxicity:

Toxicity to fish:	LC50 (96 h) 1.37 mg/l, <i>Oncorhynchus mykiss</i> (OECD Guideline 203)
Aquatic plants:	EC50 (72 h) 0.103 mg/l (biomass), <i>Scenedesmus subspicatus</i> (OECD Guideline 201, static)
Microorganisms/Effect on activated sludge:	EC20 (180 min) > 1,000 mg/l, activated sludge, domestic (OECD Guideline 209, aquatic)
Persistence and degradability:	Not readily biodegradable (by OECD criteria). Moderately/partially biodegradable. 42.2 % CO ₂ formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC,



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Bioaccumulation potential:	C.4-C) (aerobic, activated sludge, domestic) No data available.
Mobility in soil:	No data available.
Results of PBT and dvPvB assessment:	No data available.
Other adverse effects:	May cause long lasting harmful effects to aquatic life.

Section 13. Disposal considerations

Observe national and local legal requirements.

Section 14. Transport information

DOT

Basic shipping requirements:

UN number	Not regulated
Proper shipping name	Not regulated
Hazard class	Not regulated
Packing group	Not regulated
Environmental hazards	No

IATA

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Environmental hazards	No

IMDG

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Environmental hazards	No

Section 15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.



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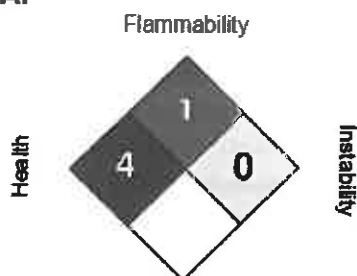
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Section 16. Other information

NFPA:



HMIS III:

HEALTH	4
FLAMMABILITY	1
PHYSICAL HAZARD	0

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.

