

Technical Data Sheet

Product Name: Lipo-Vida™ Liposomal
Vitamin D3 50,000IU/g

Product Code: EZ891305a

1. Technical Data Sheet		
Chemical Name	Liposomal Vitamin D3 50,000IU/g	
CAS Number	67-97-0	
Molecular Weight	384.64	
Molecular Formula	C ₂₇ H ₄₄ O	
Compliance (Food / Pharmacopoeia / FCC / Feed)	Food	
Source (Animal / Plant / Mineral / Petrochemical)	/	
Brief Introduction: Vitamin D3, also known as cholecalciferol, is a form of vitamin D that is naturally synthesized by the skin when exposed to sunlight. It is essential for maintaining bone health by aiding in the absorption of calcium and phosphorus from the diet. Additionally, vitamin D3 supports immune function, muscle health, and has roles in reducing inflammation. It is often used in supplements and fortified foods to help prevent vitamin D deficiency, which can lead to conditions such as osteoporosis and rickets in severe cases.		
Item	Standard	Analysis Method
Appearance	Light Yellow Powder	Visual
Identification	Positive	TLC/HPLC
Odor &Taste	Characteristic	Organoleptic
Assay (Vitamin D3)	≥ 50,000 IU/g	HPLC
Ash Content	≤ 5.0%	Eur.Ph. <2.4.16>
Loss on Drying	≤ 8.0%	Eur.Ph.7.0 [2.8.17]
Heavy metals		
Total Heavy Metals	≤ 10 ppm	USP <233>
Lead	≤ 3.0 ppm	USP <233>
Arsenic	≤ 1.0 ppm	USP <233>
Cadmium	≤ 1.0 ppm	USP <233>
Mercury	≤ 0.1 ppm	USP <233>
Microorganism		
Total plate count	≤ 1,000 cfu/g	USP <61>
Molds & Yeasts	≤ 100 cfu/g	USP <61>
E. coli	Negative/10g	USP <62>
Salmonella	Negative/10g	USP <62>
Staphylococcus	Negative/10g	USP <62>

Storage & Shelf Life	
Package	25kg/drum
Shelf Life	The shelf life for the product is 24 months from date of production. Use it as soon as possible once it is opened.
Storage	Store in unopened original package under clean and dry condition, away from sunlight.

2.Origin & Ingredient			
Country of origin of the product: China		Origin statement: available ☒	
This product is a pure material ☒		This product is a compound material ☐	
The product's composition is 100% Liposomal Vitamin D3			
Animal origin	☐ bovine	Specific Source: /	
	☐ porcine	Specific Source : /	
	☐ ovine	Specific Source : /	
	☐ others:	Specific Source: /	
Synthetic	☐	Starting material:	Origin:
Biotechnological processing	☐ Catalysis By Enzymes	Name of Enzyme: / Sources of Enzymes : /	
	☐ Fermentation	Source of Medium: / Strain: /	
Botanical Origin	Botanical Name:	/	
	Part:	/	
	Wild or Cultivated :	/	
	Country of Origin:	/	
	Solvent Used :	/	

3.Nutrition Data	
Nutritional Composition	☒ Per 100g ☐ Per Serving
☐ Energy (KJ) ☒ Energy (Kcal)	0kcal
Fat (g)	0
Carbohydrates (g)	0
Protein (g)	0
Sodium (mg)	0
Remarks: Nutrition Data Are Obtained By 3 rd Party Lab; Tested on A Yearly Basis	

4.Manufacture Details	
Manufacturer Name:	Enzymolab Biotech Co., Ltd

Address:	Tianmu Road, Laiyang Development District, Yantai, Shandong		
Capacity of Production	200mt per year		
Number of Employees in Production: 56	Number of Employees in QA / QC.: 8		
Quality And Food Safety Management System Certificated by Accredited Authority. E.G.: ISO Series, GFSI Series HACCP GMP、CGMP FAMI-QS、GMP+	ISO9001 Series: ☐ ISO9001 ☐ ISO22000 ☐ ISO14001 ☐ ISO45000 GFSI Series: ☒ BRC ☐ FSSC22000 ☐ IFS ☐ SQF ☐ GMP ☐ HACCP ☐ FAMI-QS ☐ GMP+		
Product Related Certificates	☐ HALAL ☐ KOSHER ☐ IP ☐ ORGANIC		
Suitable For Vegan	☒ YES ☐ NO		
We Confirm Above Mentioned Certificates or Related Statement And Keep Available ☒			

5.Process Quality and Food Safety		
Flow chart : This product specification has listed the detailed process flow chart of each step of the actual production process from raw material pretreatment to finished product warehousing, including possible additives, processing aids, steps to remove foreign matters, CCP, water used, compressed air etc.	Integrity flow chart available ☒	
CCP In Place		
CCP info.	CL	Location in process
Foreign Body Control		
Have implemented control procedures for glass, fragile plastic materials ☒		
Pest Control		
Conducted by manufacturer: ☒ by external contractor ☐ Name of contractor:		
Batch Number & Traceability		

Batch Size	500kgs
We confirm that we perform batch and traceability management on the whole process from raw material receiving, production process, storage, and transportation, by focusing on raw materials, semi-finished products, production processing and transportation, related records, and product labels. Take traceability exercise on an annual basis.	
Supply Chain Custody	
To ensure proper oversight and control of the supply chain in the production of supplement raw materials, it is essential to monitor and document every step, from farm, field, or ocean, through processing and final delivery to the customer. Below is a detailed breakdown of each stage, highlighting key links in the supply chain and the actions taken at each step:	
1. Sourcing of Raw Materials 2. Transportation from Source 3. Receiving at Processing Facility 4. Processing & Transformation 5. Packaging and Labeling 6. Storage Before Distribution 7. Transportation to Customers 8. Post-Delivery & Customer Feedback 9. Continuous Improvement & Auditing	

6. Non-GMO Declaration		
	YES	NO
The product does not contain or consist of GMO	☐	☒
The product is not produced from GMO or not contain ingredients produced from GMO (irrespective of whether there is NDA or protein of GM origin in the final production)	☐	☒
This product is not produced by means of GM microorganism including precursor substances, e.g., with GMOs or Genetically Modified microorganisms processing aids (bacteria, yeast,).	☐	☒
This product is not produced with the help of enzymes, which were obtained from GMOs	☐	☒
Does the product contain any ingredients from animal?	☐	☒
If yes, are genetically modified crops contained in the feed for the animal?	☐	☒
We confirm that this product complies with regulations EC/1829/2003 and EC1830/2003 and keep non-GMO statement available.	☒	☐

7. Allergen Declaration
We have carefully reviewed this product according to EU Regulation 1169/2011 and modifications and confirm the following:

	Direct incorporation as a base raw material or in a derivative form (don't forget the carriers, the additives, and the processing aids)		CROSS CONTAMINATION					
	Yes (Precise nature)	No	Presence on the production line		Presence on the production workshop		Presence on the production factory	
			Yes (precise the nature)	No	Yes (precise the nature)	No	Yes (precise the nature)	No
Cereals containing gluten (1) and products thereof		N		N		N		N
Crustaceans and products thereof		N		N		N		N
Eggs and products thereof		N		N		N		N
Fish and products thereof (2)		N		N		N		N
Peanuts and products thereof		N		N		N		N
Soybeans and products thereof (3)		N		N		N		N
Milk and products thereof (including lactose) (4)		N		N		N		N
Nuts (5) or products thereof		N		N		N		N
Celery and products thereof		N		N		N		N
Mustard and products thereof		N		N		N		N
Sesame seeds and product thereof		N		N		N		N
Sulphur dioxide and sulphites at concentrations of more than 10mg/kg or 10 mg/l expressed as SO ₂		N		N		N		N
Lupines and products thereof		N		N		N		N
Mollusc and product		N		N		N		N

thereof							
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Cereals which contain gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) except: wheat-based glucose syrups including dextrose, wheat-based maltodextrins, glucose syrups based on barley, cereals used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

Except: fish gelatine used as carrier for vitamin or carotenoid preparations, fish gelatine or Isinglass used as fining agent in beer and wine.

Except fully refined soybean oil and fat, natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, natural D-alpha tocopherol succinate from soybean sources; vegetable oils derived phytosterols and phytosterol esters from soybean sources; plant stanol ester produced from vegetable oil sterols from soybean sources.

Except when used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages, lactitol.

almond (*Amygdalus communis* L.) hazelnuts (*Corylus avellana*), walnut (*Juglans regia*), cashew (*Anacardium occidentale*), pecan nuts (*Carya illinoensis*), Brazil nut (*Bertholletia excelsa*), pistachio nut (*Pistacia vera*), macadamia nut and Queensland nut (*Macadamia terniflora*) and products thereof, except nuts used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

8. non-Irradiation (According to EU directive 1999/2/EC & 1999/3/EC)		
This product has not been treated with ionising radiation	☐ YES	☒ NO
None of the raw materials we used for this product have been treated with ionising radiation.	☐ YES	☒ NO
We confirm above non-Irradiation statement is available	☒ YES	

10. Nanomaterial (According to EU Regulation (EU) No. 1363/2013)		
This product does not contain any nanomaterials as defined in EU food legislation	☐ YES	☒ NO
This product has not been made with nanotechnology	☐ YES	☒ NO
We confirm above non-Nanomaterial statement is available	☒ YES	

10. Residual Solvents (According to UE Directive 2009/32 modified by (UE)2010/59; EP5.4; USP476; ICH Q3C(R7))	
For this product following solvents are used during production process: Solvent A: max residual level:	☒ solvent used. ☐ solvent not used
We confirm solvent residual of this product complies with:	☒ EP 7.0

	☒ USP <476> ☒ ICH Q3C(R7) ☐ Directive 2010/59/EU ☐ NA
We confirm Solvent residual statement is available	☒ YES

11.Pesticide Residual (According to EC 396/2005; EP07; USP <561>)	
This product is of vegetable origin	☒ YES ☐ NO
We confirm pesticide residual of this product complies with:	☒ EC 396/2005 ☒ EP 07/2008 ☒ USP<561> ☐ N/A
Pesticide residual statement available	☒ YES

12.BSE/TSE Information (According to EU No. 2019/319; EP general chapter 5.2.8)	
Cattle, sheep, goats, and other animals naturally susceptible to infection with transmissible spongiform encephalopathy (TSE) agents, or those susceptible to infection through the oral route (excluding humans and non-human primates), are defined as "BSE-relevant animal species." Pigs and birds, however, are not naturally susceptible to infection via the oral route and, therefore, are not considered TSE-relevant species. Similarly, dogs, rabbits, and fish are also not classified as TSE-relevant animal species.	
The product contains no ingredients of ruminant origin and no materials derived from or exposed to ruminants affected by or under quarantine for Transmitting Transmissible Spongiform Encephalopathy (TSE) / Bovine Spongiform Encephalopathy (BSE).	☐ YES ☒ NO ☐ NA
In the manufacturing of this product, there is not any raw or source material and /or reagent used that is of animal origin i.e., bovine, serum-albumin, enzymes, culture broths including those used to prepare working or master cell tanks.	☐ YES ☒ NO
Equipment/systems/tools use for processing or storage of the material do not come into contact at any time with	☐ YES

materials of animal origin (e.g., components of media filler used to check such system).	☒ NO
The material is not purified by using solvents, chromatographic media or buffers that contain components of animal origin.	☐ YES ☒ NO
We confirm this product complies with:	☒ EU legislation 999/2001 & ☐ EP general chapter 5.2.8
We confirm BSE/TSE statement is available	☒ YES

13. Contaminants Information

(According to UE regulation NO.1881/2006 and NO.629/2008 as regards maximum levels for certain contaminants in foodstuff)

Aflatoxin B1 <5ppb Aflatoxins B1 + B2 + G1 + G2 <10ppb Ochratoxin A <15ppb	☒ YES ☐ NO ☐ NA
Melamine Free	☒ YES
Dioxins, Furans, Polychlorinated Biphenyls Free	☒ YES
For polycyclic aromatic hydrocarbons, in cocoa fiber, banana chips, food supplements and their preparations, dried herbs <i>and dried spices</i> : Maximum level of 10 µg/kg of benzo(a)pyrene 50 µg/kg for the sum of PAH4 (PAH4; benzo[a]pyrene, chrysene, Benz[a]anthracene and benzo[b]fluoranthene) in food supplements	☒ YES ☐ NO ☐ NA
We confirm this product complies with NO.1881/2006 and NO.629/2008 and keep compliance statement available	☒ YES

14. WADA Statement

We confirm that none of the products manufactured or stored within our facility contain any prohormones, stimulants, steroids, or other substances listed on the current WADA (World Anti-Doping Agency) list.

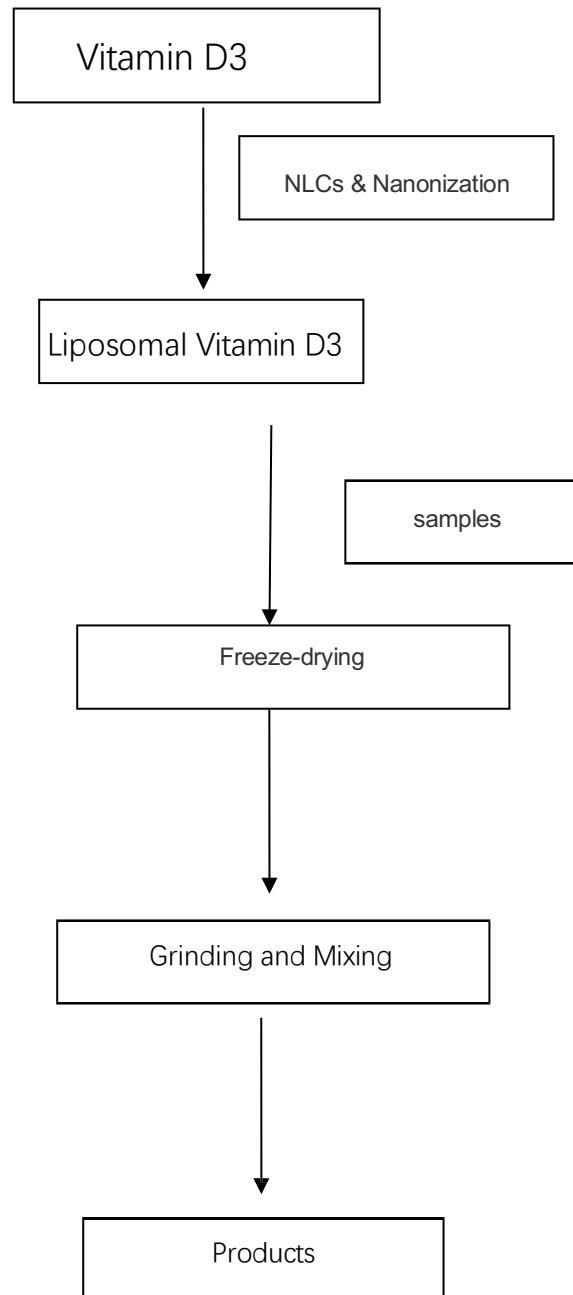
15. ETO Free Statement

We hereby confirm that ethylene oxide (ETO), 2-chloroethanol, or any other chemical sterilizing

agents are not used during the manufacturing, storage, or transportation of our products.

16. Other Statements	
We confirm Nitrates of this product complies with EU No 1258/2011	☒ YES ☐ NO ☐ NA
We confirm Mycotoxins / Aflatoxins of this product complies with EU No 165/2010	☒ YES ☐ NO ☐ NA
We confirm 3-MCPD of this product complies with EU No. 2020/1322	☒ YES ☐ NO ☐ NA
We confirm Pyrrolizidine alkaloids of this product complies with Regulation (EU) 2020/2040	☒ YES ☐ NO ☐ NA

Flow Chart



Material Safety Data Sheet

1. Product Identification

- **Product Name:** Liposomal Vitamin D3
 - **CAS Number:** 67-97-0
 - **Recommended Use:** Dietary supplement, fortification of food products, skin care formulations, and other wellness products.
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2. Hazard Identification

- **Classification:** Generally considered non-hazardous as a supplement ingredient, but skin or eye irritation may occur with improper handling.
 - **Label Elements:**
 - **Signal Word:** None (if it's not classified as hazardous)
 - **Hazard Statements:** May cause mild irritation to eyes and skin.
 - **Precautionary Statements:**
 - Avoid contact with eyes and skin.
 - In case of skin or eye irritation, rinse with water and seek medical advice.
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3. Composition/Information on Ingredients

- **Active Ingredient:**
 - **Vitamin D3 (Cholecalciferol)** – typically encapsulated in liposomal form.
 - **Liposomal Encapsulation:** Lipid mixture (usually phospholipids like lecithin).
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4. First-Aid Measures

- **Inhalation:** Not typically a concern with oral supplements; however, move to fresh air if inhaled in large amounts.
 - **Skin Contact:** Wash with soap and water if irritation occurs.
 - **Eye Contact:** Rinse with plenty of water for several minutes. Seek medical advice if irritation persists.
 - **Ingestion:** If large quantities are ingested, contact a physician immediately. Overconsumption of Vitamin D may lead to hypercalcemia.
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5. Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use dry chemical, foam, or carbon dioxide (CO₂).
 - **Specific Hazards:** Combustible material; however, Vitamin D3 itself is not considered flammable.
 - **Protective Equipment:** Wear self-contained breathing apparatus (SCBA) and full protective gear in case of large-scale fire.
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6. Accidental Release Measures

- **Spill Procedures:** Clean up using standard containment procedures. For large spills, use absorbent materials and dispose of waste in accordance with local regulations.
 - **Personal Precautions:** Wear gloves and protective eyewear if there is potential for contact with skin or eyes.
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7. Handling and Storage

- **Handling:** Handle in accordance with good industrial hygiene practices. Avoid direct skin or eye contact.
 - **Storage:** Store in a cool, dry place, away from direct sunlight and moisture. Ideal storage temperature: 15-30°C (59-86°F).
 - **Shelf Life:** Typically 2 years, but check product-specific recommendations.
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8. Exposure Controls/Personal Protection

- **Engineering Controls:** Normal room ventilation is usually adequate.
 - **Personal Protective Equipment (PPE):**
 - **Eye Protection:** Safety goggles or glasses.
 - **Skin Protection:** Wear gloves if handling large quantities.
 - **Respiratory Protection:** Not required under normal conditions of use.
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9. Physical and Chemical Properties

- **Appearance:** Liposomal Vitamin D3 is usually a milky, yellowish powder form.
- **Odor:** Slight characteristic odor.
- **Boiling Point:** Not applicable.

- **Melting Point:** Not applicable.
 - **Solubility:** Liposomal Vitamin D3 is usually suspended in water or oil and is not water-soluble due to the lipid encapsulation.
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10. Stability and Reactivity

- **Stability:** Stable under recommended storage conditions. May degrade if exposed to heat, light, or moisture.
 - **Conditions to Avoid:** High temperatures, excessive moisture.
 - **Incompatible Materials:** None known.
 - **Hazardous Decomposition Products:** If burned or exposed to extreme heat, may release carbon monoxide and other combustion products.
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11. Toxicological Information

- **Acute Toxicity:** Vitamin D3 in large doses can cause toxicity, leading to hypercalcemia. However, in typical supplement dosages, it is considered safe.
 - **Chronic Toxicity:** Prolonged high doses can lead to adverse health effects such as kidney damage or calcification of soft tissues.
 - **Carcinogenicity:** No known carcinogenic effects.
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12. Ecological Information

- **Ecotoxicity:** No known significant environmental impact if disposed of properly.
 - **Persistence and Degradability:** Biodegradable when disposed of in accordance with local regulations.
 - **Bioaccumulation:** Not significant for typical concentrations.
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13. Disposal Considerations

- **Disposal Methods:** Dispose of in accordance with local, state, and federal regulations. Avoid release into the environment.
 - **Contaminated Packaging:** Dispose of as regular waste, following local waste disposal regulations.
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14. Transport Information

- **UN Number:** Not classified as hazardous for transport.
 - **Transport Class:** Not classified as dangerous goods.
 - **Packaging Group:** Not applicable.
 - **Special Precautions:** Ensure the product is well-secured during transport to avoid spillage.
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15. Regulatory Information

- **Regulations:** Liposomal Vitamin D3 as a dietary ingredient complies with the regulations for supplements in many regions, including the U.S. FDA and EU health regulations.
 - **Labeling:** Ensure labeling follows local regulatory requirements for health claims and ingredient disclosures.
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16. Other Information

- **Disclaimer:** The information in this document is provided as a general guide based on known material safety data.