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SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name:

Vitamin D3 Powder 100,000 IU/g

· Registration number:

No available data.

· UFI number:

No available data.

· Other means of identification:

No available data.

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against on
- · Application of the substance/ mixture:

Industrial uses, food additive, used in food processing.

· Uses advised against:

No available data.

· Reason why uses advised against:

No available data.

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

QUANZHOU LN BIOCHEMICAL CO., LTD.

TAOXI VILLAGE, TAOCHENG TOWN, YONGCHUN COUNTY, QUANZHOU, CHINA

Tel: +86-595-23870659 Fax: +86-595-2387056

Email: DECO007@126.COM National contact: Yibin Wu

· Only Representative/other EU contact point:

No information available.

· Further information obtainable from:

QUANZHOU LN BIOCHEMICAL CO., LTD.

· 1.4 Emergency telephone number

Tel: +86-13950178560 (24 hours available, for English and Chinese)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to regulation (EC) 1272/2008:

The product is not classified according to CLP Regulation.

Regulation (EC) No 1272/2008 [CLP]	Classification procedure		
Not applicable	Not applicable		

- · 2.2 Label elements
- · Labeling according to Regulation (EC) No 1272/2008:

The product is not labelled according to CLP Regulation.

· Hazard pictograms:



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Not applicable

· Signal word:

Not applicable

· Hazard-determining components of labelling:

Not applicable

· Hazard statements:

Not applicable

· Precautionary statement:

Not applicable

· Supplemental label elements:

Not applicable

· 2.3 Other hazards

None ingredients ($\geq 0.1\%$) meets the criteria for PBT/vPvB in accordance with Annex XIII.

None ingredients (≥0.1%) identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

SECTION 3: Composition/information on ingredients

· 3.1 Substance

Not applicable

- · 3.2 Mixtures
- · Description of the mixture:

Vitamin D3 Powder 100,000 IU/g.

Ingredients:						
Substance	CAS No.	Index No.	EC No.	w/w, %	CLP Classification	SCL/M-factor/ATE
Maltodextrin	9050-36-6	-	232-940-4	49.5	None	-
Sucrose	57-50-1	-	200-334-9	7.8	None	-
Starch, hydrogen octenylbutanedioate, sodium salt	66829-29-6	-	-	42.45	None	-
Vitamin D3	67-97-0	603-180-00-4	200-673-2	0.25	Acute Tox. 2, H300 Acute Tox. 2, H310 Acute Tox. 2, H330 STOT RE 1, H372	ATE (oral)=35mg/kg ATE (dermal)=50mg/kg ATE (inhal.)=0.05mg/l (dusts/mists) STOT RE 1, H372: $C \ge 3\%$ STOT RE 2, H373: $0.3 \le C \le 3\%$

Additional information:

Full text of H-statements, see SECTION 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures



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General advice:

Get medical attention if you feel unwell.

After inhalation:

Supply with fresh air.

Get medical attention if you feel unwell.

After skin contact:

Wash with water.

If there are signs of irritation or other symptoms seek medical attention.

After eye contact:

Rinse cautiously with water.

If eye irritation occurs: Get medical advice/attention.

After swallowing:

Rinse mouth.

Call a POISON CENTER/doctor if you feel unwell.

· 4.2 Most important symptoms and effects, both acute and delayed:

No known important symptoms or effects, acute or delayed.

· 4.3 Indication of any immediate medical attention and special treatment needed:

Treat according to symptom, there is not known specific medicine.

SECTION 5: Fire-fighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Use CO₂, chemical powder, water spray or alcohol resistant foam to extinguish.

· Unsuitable extinguishing media:

No known unsuitable extinguishing media.

· 5.2 Special hazards arising from the substance or mixture:

May produce toxic dust in air under fire.

 \cdot 5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus for firefighting.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures
- · 6.1.1 For non-emergency personnel

Protective equipment:

Protective gloves and respiration protection.

Emergency procedures:

Ensure good ventilation.

Avoid breathing dust.

Avoid contact with eyes and skin.



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· 6.1.2 For emergency responders

Personal protective equipment:

Protective gloves and respiration protection.

· 6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so.

Prevent spillage from entering drains, sewer, basement or confined areas.

If the spillage contaminates rivers, lakes or drains inform respective authorities.

· 6.3 Methods and material for containment and cleaning up:

Ensure good ventilation.

Pick up mechanically.

Dispose contaminated material as waste according to section 13.

· 6.4 Reference to other sections:

See section 7 for information on safe handing.

See section 8 for information on personal protection equipment.

See section 13 for disposal in formation.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling:

Ensure well ventilation at workplace.

Wear protective gloves and respiration protection.

Avoid breathing dust.

Avoid contact with eyes.

· Information about fire and explosion protection:

Normal measures for preventive fire protection.

- · 7.2 Conditions for safe storage, including any non-compatibility
- · Requirements to be met by storerooms and receptacles:

Store in a cool, dry and well-ventilated place.

· Information about storage in one common storage facility:

No further requirements.

· Further information about storage conditions:

No further requirements.

· Storage class:

13.

\cdot 7.3 Specific end use(s):

See section 1.2.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.



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· DNELs: No available data.

· PNECs: No available data.

· Additional information:

The lists valid during the marking were used as basis.

- · 8.2 Exposure controls
- · Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.
- · Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice.

Wash hands and face before breaks and at the end of work.

See section 7 for information about design of technical facilities.

- · Personal protective equipment
- · Eye and face protection:



Safety glasses

Protective goggles with side-shields.

- · Skin protection
- · Hand protection:



Protective gloves

Gloves made from butyl rubber NeopreneTM rubber, nitrile rubber (thickness> 0.11mm; breakthrough times up to 480 minutes).

· Other skin protection:

Gauntlets, boots, bodysuit are recommended.

· Respiration protection:

Dust mask is necessary.

· Thermal hazards:

The gauntlets, boots, bodysuit and other personal protective equipment must be flame retardant and no heat-conducting.

· Environmental exposure controls:

Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties			
· 9.1 Information on basic physical and chemical properties			
· Physical state	Solid		
· Color	White		
· Odor & Odor threshold	Odorless to slight odor		
· Melting point/freezing point (or softening point/range) Not determined			
· Boiling point or initial boiling point and boiling range Not determined			
Flammability Not flammable solid			
Lower and upper explosion limit Not determined			
· Flash point	Not applicable		



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· Auto-ignition temperature	Not determined			
· Decomposition temperature	Not determined			
· pH	4-8 (20°C, 10g/l)			
· Kinematic viscosity (mm2/s)	Not applicable			
· Solubility	Soluble in water			
· Partition coefficient n-octanol/water (log value)	Not determined			
· Vapor pressure	Not determined			
· Density and/or relative density	Not determined			
· Relative vapor density	Not determined			
· Particle characteristics	Not determined			
· 9.2 Other information				
· 9.2.1 Information with regard to physical hazard classes:				
· Explosives	Not applicable			
· Flammable gases	Not applicable			
· Aerosols	Not applicable			
· Oxidising gases	Not applicable			
· Gases under pressure	Not applicable			
· Flammable liquids	Not applicable			
· Flammable solids	Not applicable			
· Self-reactive substances and mixtures	Not applicable			
· Pyrophoric liquids	Not applicable			
· Pyrophoric solids	Not applicable			
· Self-heating substances and mixtures	Not applicable			
· Substances and mixtures, which emit flammable gases	Not applicable			
in contact with water				
· Oxidizing liquids	Not applicable			
· Oxidizing solids	Not applicable			
· Organic peroxides	Not applicable			
· Corrosive to metals	Not applicable			
· Desensitised explosives	Not applicable			
· 9.2.2 Other safety characteristics				
· Mechanical sensitivity	Not applicable			
· Self-accelerating polymerisation temperature	Not applicable			
· Formation of explosible dust/air mixtures	Not applicable			
· Acid/alkaline reserve	Not applicable			
· Evaporation rate	Not applicable			
· Miscibility	Not applicable			
· Conductivity	Not applicable			
· Corrosiveness	Not applicable			
· Gas group	Not applicable			
· Redox potential	Not applicable			
· Radical formation potential	Not applicable			
· Photocatalytic properties	Not applicable			



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• Other physical and chemical parameters Not determined

SECTION 10: Stability and reactivity

· 10.1 Reactivity:

The product is no-reactive under normal conditions of use, storage and transport.

· 10.2 Chemical stability:

Under storage at normal ambient temperatures, the product is stable.

· 10.3 Possibility of hazardous reactions:

No known hazardous reaction.

· 10.4 Conditions to avoid:

High temperature.

· 10.5 Incompatible materials:

Strong acid, strong alkali, strong oxidizing agent.

· 10.6 Hazardous decomposition products:

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

Based on available data, the classification criteria are not met.

$ATE_{mix} (oral)$	=	14000 mg/kg
$ATE_{mix}(dermal)$	=	20000 mg/kg
ATE_{mix} (inhal.)	=	20 mg/l/4h (dust/mist)

Routes of exposure	Method/source	Species	Effective Dose	Results	
67-97-0 Vitamin D3					
Acute oral toxicity	Toxicology and Applied Pharmacology. Vol. 43, Pg. 125, 1978.	Rat	LD50	42 mg/kg	
	Defense des Vegetaux. Vol. 43(255-256), Pg. 14, 1989.	Mouse	LD50	42.5mg/kg	
Acute dermal toxicity	Specification by Sigma-Aldrich	Rat	LD50	61 mg/kg	
Acute inhalation toxicity (dust)	Specification by Merck	Rat	LC50	0.13-0.38 mg/l (dusts/mists)	

· Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

· Serious eyes damage/irritation:

Based on available data, the classification criteria are not met.

· Respiratory or skin sensitization:



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Based on available data, the classification criteria are not met.

· Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

· Carcinogenicity:

Based on available data, the classification criteria are not met.

· Reproductive toxicity:

Based on available data, the classification criteria are not met.

· Summary of evaluation of the CMR properties:

Not classified as CMR product.

· STOT-single exposure:

Based on available data, the classification criteria are not met.

· STOT-repeated exposure:

Based on available data, the classification criteria are not met.

· Aspiration hazard:

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties:

None ingredient ($\geq 0.1\%$) is considered to have endocrine-disrupting properties with respect to humans as it meets the criteria set out in section A of Regulation (EU) No 2017/2100.

11.2.2 Other information:

No known other relevant information on adverse health effects.

SECTION 12: Ecological information

· 12.1 Toxicity

Acute (short-term) toxicity:

No available data.

Chronic (long-term) toxicity:

No available data.

· 12.2 Persistence and degradability:

No available data.

· 12.3 Bio-accumulative potential:

No available data.

· 12.4 Mobility in soil:

No available data.

· 12.5 Results of PBT and vPvB assessment:

This mixture does not contain any substances ($\geq 0.1\%$) that are assessed to be a PBT or a vPvB.



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· 12.6 Endocrine disrupting properties:

None ingredient ($\geq 0.1\%$) does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

· 12.7 Other adverse effects:

No known other adverse effects.

· 12.8 Additional ecological information

· General notes:

WGK1 (German Regulation) (self-assessment): Low hazard to waters.

Do not allow large quantities of the product to reach ground water, water course or sewage system.

SECTION 13: Disposal consideration

- · 13.1 Waste treatment methods
- · Recommendation:

Small quantities can be disposed together with household garbage.

Large quantities disposed must be in according to the local regulation.

- · 13.2 Un-cleaned packaging
- · Recommendation:

Dispose of contents/container in according to the local/regional/national/ international regulation.

SECTION 14. Transport information	
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· 14.1 UN-Number	
ADR/RID/ADN, IMO/IMDG, IATA	Not regulated
· 14.2 UN proper shipping name	
ADR/RID/ADN, IMO/IMDG, IATA	Void
· 14.3 Transport hazard class (es)	
ADR/RID/ADN, IMO/IMDG, IATA	
Class	Void
Label	Void
· 14.4 Packing group	
ADR/RID/ADN, IMO/IMDG, IATA	Void
· 14.5 Marine pollution	No
· 14.6 Special precautions for user	Void
· Danger code (Kemler)	Void
· EMS number	Void
\cdot 14.7 Transport in bulk according to Annex II	of
MARPOL 73/78 and the IBC Code	Void

SECTION 15: Regulatory information

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



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· MAK (German Maximum Workplace Concentration):

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances-ANNEX I:

None of the ingredients is listed.

· Seveso category:

Not applicable

· Qualifying quantity (tonnes) for the application of lower-tier requirements:

Not applicable

· Qualifying quantity (tonnes) for the application of upper-tier requirements:

Not applicable

- · National regulations.
- · Water hazard class:

WGK1 (German Regulation) (self-assessment): Low hazard to waters.

- · Other regulations, limitations and prohibitive regulations
- · SVHC Candidate list of REACH Regulation Annex XIV Authorization:

None of the ingredients is listed.

· REACH Regulation Annex XVII Restriction:

None of the ingredients is listed.

· REACH Regulation Annex XIV Authorization List:

None of the ingredients is listed.

· 15.2 Chemical safety assessment:

A Chemical Safe Assessment has not been carried out.

SECTION 16: Other information

· 16.1 Indication of changes:

None.

16.2 Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

vPvB: very persistent and very bio accumulative

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

Acute Tox. 2: Acute toxicity, hazard category 2

STOT RE 1: Specific target organ toxicity after repeated exposure, hazard category 1

STOT RE 2: Specific target organ toxicity after repeated exposure, hazard category 2



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· 16.3 Key literature references and sources for data:

https://echa.europa.eu/

https://chem.nlm.nih.gov/

https://www.osha.gov/

http://www.unece.org/

http://www.imo.org/

https://www.dguv.de/

https://epa.govt.nz/

http://www.ilo.org/

https://www.phmsa.dot.gov/

· 16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

See section 2.1 (classification).

· 16.5 Relevant H- and EUH-phrases (number and full text):

H300 Fatal if swallowed

H310 Fatal in contact with skin

H330 Fatal if inhaled

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

· 16.6 Training advice:

Workers must be educated and trained so they can read SDS and understand the hazards, and know how to work safely with hazardous products.

· 16.7 Further information:

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, its amendment Regulation (EU) No 2020/878 and (EC) No 1272/2008.

DISCLAIMER OF LIABILITY:

The information in this SDS was obtained from sources which we believe are reliable. However, the 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. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

End of safety data sheet