

Material Safety Data Sheet



MSDS Creation Date: Jun 14,2018
Revision 1.6 Date: Aug 13,2021

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name : D-Biotin
Product Number : P000652
Brand : ZNCBIO
CAS-No. : 58-85-5
EC-No. : 200-399-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture: Food additives.

1.3 Details of the supplier of the safety data sheet

Company : SHANGHAI ZNC BIOTECHNOLOGY CO., LTD.
Street Address : Room 617, Building 4-5, No.500 East Gaoke Road
Pudong New Area, Shanghai (201210), China

Technical Phone : +86-21-6845 3907
Fax : +86-21-5835 6660
E-Mail : info@zncbio.com

1.4 Emergency telephone number

+86-177 1763 3275

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification information

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

This product does not meet the classification and labelling criteria given in the Hazard Communication Standard (29 CFR 1910.1200).

2.2 Label elements

Not relevant

2.3 Other hazards

No data available.

SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

Chemical characterization

Substance name : D-biotin

Synonyms: Bioepiderm, Bios II, Biotin , d-Biotin , Coenzyme R , Factor S , Factor S (vitamin) , Vitamin B7, Vitamin H

Formula: $C_{10}H_{16}N_2O_3S$

CAS No. : 58-85-5

EINECS No. : 200-399-3

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3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion

Seek medical advice immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Foam; Carbon dioxide; extinguishing powder; Water spray jet

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); Combustion products of this material have to be classed invariably as respiratory poison.

5.3 Advice for firefighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus. Wear protective clothing.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away sources of ignition.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

No special measures necessary if stored and handled as prescribed. Avoid the formation and deposition of dust. Provide good ventilation of working area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Provide eye wash fountain in work area. Do not inhale dust.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in tight containers in dry place

Requirements for storage rooms and vessels

Store product in closed containers.

Advice on storage assembly

DO not store together with toxic substances. DO not store together with harmful substance.

7.3 Specific end use(s)

No data available.

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SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	TEEL-1	TEEL-2	TEEL-3
D-Biotin	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
D-Biotin	Not Available	Not Available

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn.

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material

Material thickness

Breakthrough time

nitrile

> 0.3 mm

> 480 min

Appropriate Material

Material thickness

Breakthrough time

rubber

> 0.5 mm

> 240 min

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: solid
	Colour: white
b) Odour	Odourless
c) Odour Threshold	No data available
d) pH	5 (25°C, 0.1g/L)
e) Melting point/freezing point	Melting point/range: 229~ 232°C
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	0.22 g/L(20°C)
o) Partition coefficient: n-octanol/water	No data available
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

None, if handled according to order.

10.5 Incompatible materials

Oxidizing agents; Acids; Bases

10.6 Hazardous decomposition products

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No hazardous decomposition products known.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

LD5 Oral -rat- >2000 mg/kg

Acute dermal toxicity

No data available.

Acute inhalational toxicity

No data available.

Skin corrosion/irritation

Non-irritant

Serious eye damage/irritation

Slight irritant effect -does not require labelling

Respiratory or skin sensitisation

Skin sensitisation: No sensitizing effects are known.

Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact may cause mechanical irritation through dust particles.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Inhalation of dusts may irritate the respiratory tract.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Fish toxicity

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LC0	> 104 g/m ³
Duration of exposure	96 h
Species	Brachydanio rerio

Daphnia toxicity
No data available

Algae toxicity
No data available

Bacteria toxicity
No data available

12.2 Persistence and degradability

Biodegradability	
Value	10 %
Duration	28 d
Method	closed bottle test
Evaluation	not readily degradable

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

12.7 Other information

Do not discharge product unmonitored into the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14 - TRANSPORT INFORMATION

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15 - REGULATORY INFORMATION

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

US regulations

D-Biotin (58-85-5) is found on the following regulatory lists

"US Toxic Substances Control Act (TSCA) -Chemical Substance Inventory" List.

15.2 Chemical safety assessment

No data available.

SECTION 16 - ADDITIONAL INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. ZNCBIO Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.