

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

### **1.1 Product identifier**

Product Name : D-Biotin  
Product Number : SPVH01 SPVH02  
Brand : NHU  
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 : Zhejiang NHU Pharmaceutical Co., Ltd.  
Street Address : Hangzhou Bay Shangyu Economic and Technological  
Development Area, Zhejiang province, China, 312369  
Technical Phone : +86-575-86124477  
Fax : +86-575-86131560  
E-Mail : [sales@cnhu.com](mailto:sales@cnhu.com)

### **1.4 Emergency telephone number**

Please contact the regional NHU representation in your country.

## **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

## 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 (CO<sub>2</sub>); 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

## **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.

**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

**Appropriate Material**

Material thickness

Breakthrough time

**nitrile**

> 0.3 mm

> 480 min

**rubber**

> 0.5 mm

> 240 min

**Other**

Normal chemical work clothing.

**Environmental exposure controls**

No data available.

## **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**

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**

<b>Fish toxicity</b>
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LC0	> 104 g/m <sup>3</sup>
Duration of exposure	96 h
Species	Brachydanio rerio

Daphnia toxicity	No data available
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Algae toxicity	No data available
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Bacteria toxicity	No data available
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**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.

## **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. NHU Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.