



## Material Safe Data Sheet

Version 10.1

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

#### 1.1 Name of substance/preparation:

Chemical name : Beta cyclodextrin  
Synonyms : Beta-cyclodextrin; Beta cyclodextrin;  $\beta$ -Cyclodextrin;  
Abbreviation : BCD  
Use of substance/preparation : Laboratory chemicals, solubilizer, chiral separato

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

Identified uses : Laboratory chemicals, Manufacture of substances, pharmaceuticals

#### 1.3 Details of the supplier of the safety data sheet

Company name : SHANDONG BINZHOU ZHIYUAN BIOTECHNOLOGY CO., LTD  
Add : BOXING ECONOMIC DEVELOPMENT ZONE,SHANDONG,CHINA  
Telephone : +86 543 2616568  
Fax : +86 543 2605568  
E-mail address : zhiyuansw@vip.163.com

#### 1.4 Emergency telephone number

Emergency Tel : +86 543 2616568

### 2. HAZARDS IDENTIFICATION

Classification and labelling according to EC 1272/2008

H-phrase	-	-
P-phrase	-	-

Not a dangerous substance according to GHS.

Classification and labelling according to 67/548/EEC, EC 1999/45

R-phrase	-	-
S-phrase	-	-

This substance is not classified as dangerous according to Directive 67/548/EEC.

Further information:

Risk of dust explosion.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS CHEMICAL CHARACTERIZATION (PREPARATION):

Product name: : Beta-cyclodextrin  
Other names: : Beta-cyclodextrin  
CAS NO : 7585-39-9



#### 4. FIRST-AID MEASURES GENERAL INFORMATION

In case of accident or if you feel unwell seek medical advice (show label or MSDS where possible)

If inhaled

Provide fresh air.

In case of skin contact

Wash off with plenty of water and soap.

In case of eye contact

Rinse thoroughly with plenty of water.

If swallowed

Rinse mouth with water. Drink several small portions of water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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#### 5. FIRE FIGHTING MEASURES SUITABLE EXTINGUISHING MEDIA:

Water, extinguishing powder, alcohol-resistant foam, carbon dioxide

Extinguishing media which must not be used for safety reasons:

n.d.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

At low oxygen level: carbon monoxide

Special protective equipment for fire fighters:

Use respiratory protection independent of recirculated air.

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#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid dust formation. Do not breath dust.

Environmental precautions:

Cover any spilled material in accordance with regulations to prevent dispersal by wind. Observe local/state/federal regulations.

Methods for cleaning up:

Take up mechanically and dispose of according to local/state/federal regulations. Avoid formation of dust and dust deposition. Dispose of cleansing water in accordance with local/state/federal regulations.

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#### 7. HANDLING AND STORAGE HANDLING

Precaution for safe handling: Avoid dust formation.

Precautions against fire and explosion: Observe the general rules for fire prevention. Avoid dust deposit, remove dust regularly. Take precautionary measures against electrostatic charging. Take precautionary measures against dust explosion.

##### **Storage**

Conditions for storage rooms and vessels: Observe precautionary measures against dust explosion.

Advice for storage of incompatible materials: none known

Further information for storage: Keep container tightly closed. Protect from direct light and source of heat. Store under dry conditions below 30 °C, in well-ventilated place.

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## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT EXPOSURE LIMITS

Exposure limited and controlled

Exposure in the workplace limited and controlled:

General protection and hygiene measures: Observe standard industrial hygiene practices for the handling of chemical substances.

Personal protection equipment:

Respiratory protection: In case of dust formation: fine dust mask without protection rating.

Hand protection: rubber gloves

Eye protection: tight fitting protective goggles

Exposure to the environment limited and controlled:

Prevent material from entering surface waters and soil

Further information for system design and engineering measures

Observe information in section 7.

## 9. PHYSICAL AND CHEMICAL PROPERTIES GENERAL INFORMATION

Physical state/form	Solid - powder
Colour	White or slightly yellow
Odour	N.A

Important information about the protection of health, safety, and the environment

Flash point	N.D
Ignition temperature	>250°C
Auto-ignition temperature	N.D
Oxidizing properties	No
Lower explosion limit (LEL)	N.D
Upper explosion limit (UEL)	N.D
Bulk density	0.5-1.2 kg/dm <sup>3</sup>
Water solubility / miscibility	Poorly soluble
pH- value	N.D

Other information

See Product Information Sheet.

## 10. STABILITY AND REACTIVITY GENERAL INFORMATION

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Conditions to avoid: none known

Materials to avoid: Decomposes in strongly acidic and basic solutions

Hazardous decomposition products: none known.

## 11. TOXICOLOGICAL INFORMATION GENERAL INFORMATION

According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable.  $\beta$ -cyclodextrin is on the USA G.R.A.S. list.



Acceptable daily intake : 5 mg/kg/day

Toxicological tests:

Acute toxicity (LD50/LC50-values relevant to classification):

LD 50 (oral, rat) : 18800 mg/kg

No-effect level : 1% in the diet (ca. 350 mg/kg/day) (1-year, dog)

5% in the diet (ca. 2000 mg/kg/day) (1-year, dog) caused marginally increased levels of protein in the urine.

Carcinogenicity:

Rat : negative, 6 % in the diet in 2-year studies

Primary irritation : N.D.

Sensitization : N.D.

Substance to chronic toxicity : N.D.

Reference points for mutagenic potential:

Mutagenicity and teratogenicity:

Chromosome aberration (rat) : negative, 2 % in the diet No signs of teratogenic activity 600 mg/kg/day

No-effect level in multigeneration study : 1 % in the diet, ca. 650 mg/kg/day.

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## 12. ECOLOGICAL INFORMATION ECOTOXICITY

According to current knowledge adverse effects on water purification plants are not expected

### **Mobility**

Persistence and degradability

Biodegradation / further information: Readily biologically degradable

Bio-accumulation potential

### **Additional information**

Prevent material from entering surface waters and soil. Only introduce into water purification plants in diluted state. No environmental problems expected if handled and treated in accordance with standard industrial practices and local regulations where applicable.

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## 13. DISPOSAL CONSIDERATIONS

Waste treatment method

Product: Hand over the remaining and non-recyclable solution to a licensed company.

Contaminated containers and packaging: Dispose of as unused product.

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## 14. TRANSPORT REGULATIONS LAND TRANSPORT ADR AND RID

Road ADR:

Not regulated for transport.

Railway RID:Not regulated for transport

Transport by sea IMDG-Code:

Sea IMDG-Code:Not regulated for transport

Air transport ICAO-TI/IATA-DGR:Not regulated for transport

Air transport ICAO-TI/IATA-DGR:Not regulated for transport

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#### 15. REGULATORY INFORMATION

National and local regulations must be observed.

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#### 16. OTHER INFORMATION

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