

**SAFETY DATA SHEET**

Create Date: 2020-11-10

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**SECTION 1: COMPANY AND PRODUCT INFORMATION**

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**1.1 Product identifiers**

Product name : Bestatin  
Cat. Number : ZXB-02-101  
CAS number : 58970-76-6  
Synonyms : ([2S,3R]-3-Amino-2-hydroxy-4-phenylbutanoyl)-L-leucine

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

Identified uses : Laboratory chemicals, manufacture of substances

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

Address : Hinter den Gärten 56  
89173 Lonsee  
Deutschland

Email : info@zellx.de  
Phone : +49(0)731 55211521  
Fax : +49(0)731 55211719

**1.4 Emergency telephone number**

Emergency phone : +49(0)731 55211521

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1 Classification of substance or mixture**

Not a hazardous substance or mixture

**2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Not a dangerous substance or mixture according to GHS

**2.3 Label elements and precautionary statements**

Pictogram :  
Signal word : Not classified  
Hazard statement(s) : Not classified  
Precautionary statement(s) : Wash hands thoroughly after handling. IF exposed or concerned: Get medical advice/attention

**2.4 Hazards not otherwise classified (HNOC) or not covered by GHS**

Not available

**2.5 NFPA Rating**

Health hazard : 0  
Fire hazard : 1  
Reactivity hazard : 0

**2.6 HMIS Rating**

Health hazard : 0  
Chronic health hazard : 0  
Reactivity hazard : -  
Flammability : 1  
Physical hazard : -

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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#### 3.1 Substances

Substance	CAS#	EC#	Concentration
[2S,3R]-3-Amino-2-hydroxy-4-phenylbutanoyl)-L-leucine M.F: C <sub>16</sub> H <sub>24</sub> N <sub>2</sub> O <sub>4</sub> M.W: 308.4	58970-76-6	261-529-2	-

#### 3.2 Hazardous components & classification

No ingredients are hazardous according to OSHA criteria

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### SECTION 4: FIRST AID MEASURES

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#### 4.1 Description of first aid measures

##### In case of inhalation

Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician

##### In case of skin contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

##### In case of eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. If symptoms persist, call a physician.

##### In case of ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Not available

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### SECTION 5: FIREFIGHTING MEASURES

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#### 5.1 Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## 5.2 Unsuitable extinguishing media

None

## 5.3 Special hazards arising from the substance

Carbon oxides, nitrogen oxides (NOx)

## 5.4 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.

**For personal protection see section 8**

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**For proper disposal see section 13**

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## SECTION 7: HANDLING AND STORAGE

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### 7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**For precautions see section 2**

### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

Incompatible materials : None known based on information supplied.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

Contains no substances with occupational exposure limit values

### 8.2 Engineering controls

General industrial hygiene practice

### 8.3 Personal protective equipment

Eye/face protection : Tight sealing safety goggles. Face protection shield.

Skin protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure	: Do not let product enter drains.
General hygiene considerations	: When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

a)	Appearance	: crystalline or powder
b)	Physical states	: Solid
c)	Odor	: Not available
d)	Odor threshold	: Not available
e)	Melting point	: 245°C (473 °F)
f)	Boiling point range	: 604.66 °C
g)	pH	: Not available
h)	Density	: 1.20 g/cm <sup>3</sup>
i)	Flash point	: 319.49 °C
j)	Evaporation rate	: Not available
k)	Flammability	: Not available
l)	Upper/lower flammability or explosive limits:	: Not available
m)	Vapor pressure	: Not available
n)	Vapor density	: Not available
o)	Relative density	: Not available
p)	Water solubility	: Not available
q)	Partition coefficient:n-octanol/water	: 0.18
r)	Autoignition temperature	: Not available
s)	Decomposition temperature	: 245 °C (473 °F)
t)	Kinematic viscosity	: Not available
u)	Explosive properties	: Not available
v)	Oxidizing properties	: Not available
w)	Solubility in other solvents	: Not available

x) Surface tension : Not available

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## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

Not available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Stability note(s)

Not available

### 10.4 Polymerization

Not available

### 10.5 Possibility of hazardous reactions

None under normal processing.

### 10.6 Incompatible materials

Strong oxidizing agents

### 10.7 Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx)

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1 Acute toxicity

LD50 Oral : Not available

LD50 Dermal : Not available

LC50 Inhalation : Not available

### 11.2 Skin corrosion/irritation

Not available

### 11.3 Serious eye damage/eye irritation

Not available

### 11.4 Respiratory or skin sensitization

Not available

### 11.5 Germ cell mutagenicity

Not available

### 11.6 Carcinogenicity

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**11.7 Reproductive toxicity**

Not available

**11.8 Specific target organ toxicity – single exposure**

Not available

**11.9 Specific target organ toxicity – repeated exposure**

Not available

**11.10 Aspiration hazard**

Not available

**11.11 Additional Information**

RTECS: OH2915000

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**SECTION 12: ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

Not available

**12.2 Aquatic toxicity**

Not available

**12.3 Persistence and degradability**

Not available

**12.4 Bioaccumulative potential**

Not available

**12.5 Mobility in soil**

Not available

**12.6 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.7 Other adverse effect**

Not available

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**13.1 Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**13.2 Packaging**

Dispose of as unused product.

**13.3 Recommendation**

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**SECTION 14: TRANSPORTATION INFORMATION**

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**14.1 DOT (US)**

Not dangerous goods.

**14.2 IMDG**

Not dangerous goods.

### 14.3 IATA

Not dangerous goods.

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## SECTION 15: REGULATORY INFORMATION

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### 15.1 SARA

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: No SARA Hazards

### 15.2 Clean water act (CWA)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### 15.3 Right to know components

Massachusetts : No components are subject to the Massachusetts Right to Know Act.

Pennsylvania : [S-(R\*,S\*)]-N-(3-Amino-2-hydroxy-4-phenylbutyroyl)-L-leucine; CAS-No.:58970-76-6

New Jersey : [S-(R\*,S\*)]-N-(3-Amino-2-hydroxy-4-phenylbutyroyl)-L-leucine; CAS-No.:58970-76-6

California proposition 65 components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## SECTION 16: OTHER INFORMATION

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### 16.1 Disclaimer

This product is offered by zellx-biochem.com for research, laboratory or further manufacturing use. Not for human use or consumption. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant-ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall zellx-biochem.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if zellx-biochem.com has been advised of the possibility of such damages.

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### 16.2 Preparation Information

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