



Product: H-Ser(tBu)-OtBu.HCl
SDS No: 161420
Revision: 1.0

Safety Data Sheet

Section 1 - Product and Company Information

Product Name: H-Ser(tBu)-OtBu.HCl
Product Code: 161420
Company: CSBio(Shanghai) Ltd
EMERGENCY CONTACTS: Dr. Simon Zhu 0086-21-50781655

Section 2 - Hazards Identification

- 2.1 Classification of the substance or mixture
Not a hazardous substance or mixture.
- 2.2 GHS Label elements, including precautionary statements
Not a hazardous substance or mixture.
- 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

Section 3 - Composition/Information on Ingredients

Substance Name H-Ser(tBu)-OtBu.HCl
CAS No. 51537-21-4
Formula $C_{11}H_{23}NO_3 \cdot HCl$

Section 4 - First Aid Measures

- 4.1 Description of first aid measures
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact
Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.
- 4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
- 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
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 5.2 Special hazards arising from the substance or mixture
No data available

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5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

For disposal see section 13.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

Storage class (TRGS 510): Non Combustible Solids

Keep in a Cool dry place($\leq 8^{\circ}\text{C}$)

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8 - Exposure Controls / PPE

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without

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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

No special environmental precautions required.

Section 9 - Physical/Chemical Properties

Appearance:	White to off white powder
Molecular Weight:	253.8
pH:	N/A
BP/BP Range:	N/A
MP/MP Range:	N/A
Freezing Point:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Saturated Vapor Conc.	N/A
SG/Density:	N/A
Bulk Density:	N/A
Odor Threshold:	N/A
Volatile%:	N/A
VOC Content:	N/A
Water Content:	≤1.0
Solvent Content:	N/A
Evaporation Rate:	N/A
Viscosity:	N/A
Surface Tension:	N/A
Partition Coefficient:	N/A
Decomposition Temp.:	N/A
Flash Point:	N/A

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Explosion Limits:	N/A
Flammability:	N/A
Autoignition Temp:	N/A
Refractive Index:	N/A
Optical Rotation:	-5.0° ±2.0° (C =1 , DMF)
Miscellaneous Data:	N/A
Solubility:	N/A

Section 10 - Stability and Reactivity

- 10.1 Reactivity
 - No data available
- 10.2 Chemical stability
 - Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions
 - No data available
- 10.4 Conditions to avoid
 - No data available
- 10.5 Incompatible materials
 - Strong oxidizing agents
- 10.6 Hazardous decomposition products
 - Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
 - Other decomposition products - No data available
 - In the event of fire: see section 5

Section 11 - Toxicological Information

- 11.1 Information on toxicological effects
 - Acute toxicity
 - No data available
 - Inhalation: No data available
 - Dermal: No data available
 - No data available
 - Skin corrosion/irritation
 - No data available
 - Serious eye damage/eye irritation
 - No data available
 - Respiratory or skin sensitisation
 - No data available
 - Germ cell mutagenicity
 - No data available
 - Carcinogenicity

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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.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product

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

Contaminated packaging

Dispose of as unused product.

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Section 14 - Transport Information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

Section 15 - Regulatory Information

SARA 302 Components

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

SARA 313 Components

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

Massachusetts Right To Know Components

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

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components

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

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

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. CSBio (Shanghai) Ltd., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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