

Version: v1  
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## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : N-Carbobenzoxy-DL-leucine  
Product Number : N159599  
Brand : aladdin  
CAS-No. : 3588-60-1

#### 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

Company : Shanghai Aladdin Biochemical Tech Co., Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

#### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

CFR 1910.1200: Not classifiable

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



##### Signal word

Warning

##### Hazard statement(s)

H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation

##### Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash hands [and ...] thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: N-Cbz-DL-leucine;Z-DL-Leu-OH ; N-Benzyloxycarbonyl-DL-leucine	
Formula	: C14H19NO4	
Molecular weight	: 265.31	
CAS No.	: 3588-60-1	
EC-NO.	: no data available	
Component	Classification	Concentration
N-Carbobenzoxy-DL-leucine		
	no data available	>98.0%(HPLC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	no data available
If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
In case of skin contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If swallowed	Get medical advice/attention if you feel unwell. Rinse mouth.

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

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no data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Dry chemical, foam, water spray, carbon dioxide.

#### **Unsuitable extinguishing media**

no data available

### 5.2 Special hazards arising from the substance or mixture

These products include: Carbon oxides Nitrogen oxides. Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume. Closed containers may explode from heat of a fire.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus if possible.

### 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

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

Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

### 6.2 Environmental precautions

Prevent product from entering drains.

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

Clean up the dust and collect it in a closed container, taking care not to disperse it. Adhered or aggregated materials shall be disposed of in a timely manner in accordance with local laws and regulations.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Conditions for safe storage, including any incompatibilities

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

Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents.

**7.3 Specific end use(s)**

no data available

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**8.2 Exposure controls**

**Appropriate engineering controls**

Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.

**Personal protective equipment**

**Eyeface protection**

Safety glasses. A face-shield, if the situation requires.

**Skin protection**

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU 2016 / 425 and the en 374 standard derived from it.

**Body Protection**

Protective gloves. Protective clothing. Protective boots, if the situation requires.

**Respiratory protection**

Dust respirator. Follow local and national regulations.

**Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

a) Appearance	form: Crystal - Powder Solid color: White - Almost white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	54°C (129°F)
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

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k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

**9.2 Other safety information**

no data available

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**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under proper conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

Oxidizing agents

**10.6 Hazardous decomposition products**

Carbon dioxide, Carbon monoxide, Nitrogen oxides (NO<sub>x</sub>)

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

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**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**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**

no data available

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**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**

no data available

**12.6 Other adverse effects**

no data available

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**SECTION 13:**

**13.1 Disposal considerations**

**Product**

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Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil. Other considerations: Observe all federal, state and local regulations when disposing of the substance.

**Contaminated packaging**

Disposal of container: Dispose of as unused product.

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**SECTION 14: Transport information****DOT (US)**

UN number: no data available

Packing group: no data available

Class: no data available

Proper shipping name: no data available

Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data

Environmental Hazards: no data available

**IMDG**

UN number: no data available

Packing group: no data available

EMS-No: no data available

Proper shipping name: no data available

**IATA**

UN number: no data available

Packing group: no data available

Class: no data available

Proper shipping name: no data available

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**SECTION 15: Regulatory information****Toxic Substance Control Act**

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list: (i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec. (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet. US Federal Regulations

**US Federal Regulations**

SARA 313: Not Listed

SARA 302: Not Listed

**State Regulations**

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

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## Other Information

NFPA Rating: HMIS Classification: Health: 0 Health: 0 Flammability: 0 Flammability: 0 Instability: 0 Physical: 0

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### SECTION 16: Other information

#### Further information

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