

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2023-11-07

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

### 1.1 Product identifiers

Product name : N-Carbobenzyloxy-L-leucine  
Product Number : C108997  
Brand : aladdin  
CAS-No. : 2018-66-8

### 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)

Flammable liquids (Category 2), H225

Skin corrosion/irritation (Category 3), H316

Carcinogenicity (Category 2), H351

Reproductive toxicity (Category 2), H361

Specific target organ toxicity - single exposure (Category 3), respiratory tract irritation, H335

Short-term (acute) aquatic hazard (Category 3), H402

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

**Hazard statement(s)**

H226	Flammable liquid and vapor
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child

**Precautionary statement(s)**

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
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 : Z-Leu-OH;N-Cbz-L-leucine;Z-L-Leucine; N-(Benzyloxycarbonyl)-L-leucine;N-(Benzyloxycarbonyl)leucine;N-(Carbobenzoxyl)leucine;N-(Phenylmethoxy)carbonyl-L-leucine; N-Carbobenzoxyl-L-leucine;N-Carboxy-L-leucine N-benzyl ester;Benzyloxycarbonyl-L-leucine;Benzyloxycarbonylleucine Carbobenzoxyleucine;L-N-(Benzyloxycarbonyl)leucine;L-(Carbobenzyl)leucine;N-Benzyloxycarbonyl-L-leucine ; NSC 60039

Formula : C<sub>14</sub>H<sub>19</sub>NO<sub>4</sub>  
Molecular weight : 265.3  
CAS No. : 2018-66-8  
EC-NO. : 217-960-3

Component	Classification	Concentration
N-Carbobenzyl-L-leucine	no data available	96%

**SECTION 4: First aid measures**

## 4.1 Description of first aid measures

### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

### 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. Consult a physician.

## 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

no data available

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

Carbon oxides Nitrogen oxides (NO<sub>x</sub>) Combustible. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 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. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **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**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

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

Store in a cool place. Keep the container tightly closed and store in a dry and ventilated place. Store at 2-8°C.

### **7.3 Specific end use(s)**

no data available

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

### **8.1 Control parameters**

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### **Personal protective equipment**

##### **Eyeface protection**

Face shield and safety glasses 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 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. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

##### **Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective

clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

#### **Control of environmental exposure**

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

## **SECTION 9: Physical and chemical properties**

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

a) Appearance	form: Viscous Liquid color: Colorless to Pale Yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	85°C
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	Not miscible or difficult to mix in water. Soluble in chloroform, DMSO and methanol
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

## **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

Warming. Moisture.

## 10.5 Incompatible materials

Strong oxidizing agents

## 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - > 5,000 mg/kg

(Calculation method)

Oral: No data available Acute toxicity estimate Inhalation - 4 h - > 40 mg/l

(Calculation method)

Dermal: 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

no data available

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

May cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure

no data available

**Aspiration hazard**

no data available

**Additional Information**

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

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

### **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**

We have no quantitative data concerning the ecological effects of this product. Further information on ecology Discharge into the environment must be avoided.

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## **SECTION 13:**

### **13.1 Disposal considerations**

**Product**

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

**Contaminated packaging**

Dispose of as unused product.

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## **SECTION 14: Transport information**

#### DOT (US)

UN number: 1993	Packing group: III	Class: 3
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate, Toluene, Diisopropyl ether)	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

#### IMDG

UN number: 1993	Packing group: III	EMS-No: no data available
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate, Toluene, Diisopropyl ether)		

#### IATA

UN number: 1993	Packing group: III	Class: 3
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate, Toluene, Diisopropyl ether)		

### SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### SECTION 16: Other information

#### Further information

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