

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Z-Leu-OH

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008  
Flammable liquids (Category 3)  
Carcinogenicity (Category 2)  
Reproductive toxicity (Category 2)

According to European Directive 67/548/EEC as amended.  
Flammable. Limited evidence of a carcinogenic effect. Possible risk of harm to the unborn child. May form explosive peroxides. Vapours may cause drowsiness and dizziness.

Label elements



Signal word Warning

Hazard statement(s)  
H226 Flammable liquid and vapour.  
H351 Suspected of causing cancer.  
H361d Suspected of damaging the unborn child.

Precautionary statement(s)  
P281 Use personal protective equipment as required.

Hazard symbol(s)  
Xn Harmful

R-phrases(s)  
R10 Flammable.  
R19 May form explosive peroxides.  
R40 Limited evidence of a carcinogenic effect.  
R63 Possible risk of harm to the unborn child.  
R67 Vapours may cause drowsiness and dizziness.

S-phrases(s)  
S36/37 Wear suitable protective clothing and gloves.  
S60 This material and its container must be disposed of as hazardous waste.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Z-L-Leucine  
N-Cbz-L-leucine  
N-Carbobenzyloxy-L-leucine

Formula : C14H19NO4

CAS-No.	EC-No.		Classification	Concentration
<b>1,4-Dioxane</b> 123-91-1	204-661-8	-	Flam. Liq. 2; Carc. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H335, H351, EUH019, EUH066 F, Xn, Carc. Cat.3, R11 - R19 - R36/37 - R40 - R66	>= 0,0001 - <= 3 %
<b>Toluene</b> 108-88-3	203-625-9	-	Flam. Liq. 2; Repr. 2; Asp. Tox. 1; STOT RE 2; Skin Irrit. 2; STOT SE 3; H225, H315, H373, H304, H336, H361d F, Xn, Repr. Cat.3, R11 - R38 - R48/20 - R63 - R65 - R67	>= 0,0001 - <= 7 %
<b>Ethyl acetate</b> 141-78-6	205-500-4	-	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336, EUH066 F, Xi, R11 - R36 - R66 - R67	>= 0,0001 - <= 3 %
<b>N-Benzyloxycarbonyl-L-leucine</b> 2018-66-8	217-960-3	-	-	<= 100 %
<b>Diisopropyl ether</b> 108-20-3	203-560-6	-	Flam. Liq. 2; STOT SE 3; H225, H336, EUH019, EUH066 F, R11 - R19 - R66 - R67	>= 0,0001 - <= 8,5 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form liquid, clear, viscous

Safety data

pH no data available  
Melting point no data available  
Boiling point no data available  
Flash point 29 °C  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Density 1 g/mL at 25 °C  
Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,4-Dioxane)

Reproductive toxicity

Reproductive toxicity - mouse - Intravaginal  
Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated ).  
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

Potential health effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

Additional Information

RTECS: no data available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

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

IMDG

UN-Number: 1993 Class: 3 Packing group: III EMS-No: F-E, S-E  
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethyl acetate, Toluene, Diisopropyl ether)

Marine pollutant: No

IATA

UN-Number: 1993 Class: 3 Packing group: III  
Proper shipping name: Flammable liquid, n.o.s. (Ethyl acetate, Toluene, Diisopropyl ether)

15. REGULATORY INFORMATION

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

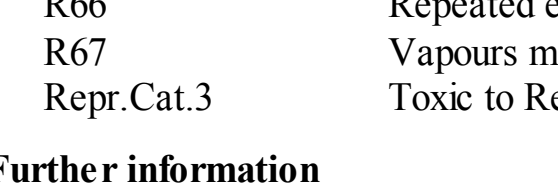
16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

Asp. Tox. Aspiration hazard  
Carc. Carcinogenicity  
EUH019 May form explosive peroxides.  
EUH066 Repeated exposure may cause skin dryness or cracking.  
Eye Irrit. Eye irritation  
Flam. Liq. Flammable liquids  
H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H361d Suspected of damaging the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
Repr. Reproductive toxicity  
Skin Irrit. Skin irritation  
STOT RE Specific target organ toxicity - repeated exposure  
STOT SE Specific target organ toxicity - single exposure  
F Highly flammable.  
R11 Highly flammable.  
R19 May form explosive peroxides.  
R36 Irritating to eyes.  
R38 Irritating to skin.  
R40 Limited evidence of a carcinogenic effect.  
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R63 Possible risk of harm to the unborn child.  
R65 Harmful: may cause lung damage if swallowed.  
Xi Irritant  
Xn Harmful  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.  
Repr. Cat.3 Toxic to Reproduction Category 3

Further information

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



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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. Lookchem 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.