

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)

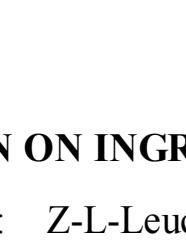
Reproductive toxicity (Category 2)

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

Pictogram



Signal word

Warning

Hazard statement(s)

Flammable liquid and vapour.

H226

Suspected of causing cancer.

H351

Suspected of damaging the unborn child.

H361d

Precautionary statement(s)

P281 Use personal protective equipment as required.

Hazard symbol(s)

Xn

Harmful

R-phrase(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-phrase(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-Carbobenzoyloxy-L-leucine

Formula : C14H19NO4

CAS-No.	EC-No.	Classification	Concentration
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1,4-Dioxane 123-91-1 204-661-8 - Flam. Liq. 2; Carc. 2; Eye Irrit. >= 0,0001 - <= 3 %
2; STOT SE 3; H225, H319, H355, H315, EUH019, EUH066
F, Xn, Carc. Cat.3, R11 - R19 - R36/37 - R40 - R66

Toluene 108-88-3 203-625-9 - Flam. Liq. 2; Repr. 2; Asp. Tox. 1; STOT RE 2; Skin Irrit. 2; H373, H304, H336, H361d F, Xn, Repr. Cat.3, R11 - R38 - R48/20 - R63 - R65 - R67

Ethyl acetate 141-78-6 205-500-4 - Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336, EUH066 F, Xn, R11 - R36 - R66 - R67

N-Benzoyloxycarbonyl-L-leucine 2018-66-8 217-960-3 - - - <= 100 %

Diisopropyl ether 108-20-3 203-560-6 - Flam. Liq. 2; STOT SE 3; H225, H336, EUH019, EUH066 F, R11 - R19 - R66 - R67

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

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

no data available

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

Reproductive toxicity - Female fertility - Intravaginal

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

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

RT/EC: no data available

12. ECOLOGICAL INFORMATION

Toxicity

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