



Alan Scientific Inc

Material Safety Data Sheet

Product: Fmoc-Leu-OH
MSDS No: AS0304
Revision: 1.0

Section 1 - Product and Company Information

Product Name	Fmoc-Leu-OH
Product Code	AS0304
Company	Alan Scientific Inc. Address: 11749 Split Tree Cir., Potomac, MD 20854 U.S.
EMERGENCY CONTACTS	(888)-757-1116 (Dr. Jason Zhi)

Section 2 - Composition/Information on Ingredients

Substance Name	Fmoc-Leu-OH
CAS No.	35661-60-0
Formula	$C_{21}H_{23}NO_4$

Section 3 - Hazards Identification

Classification of the substance or mixture

Not classified as a hazardous substance or mixture in the supplier information reviewed for this research-use sheet. Toxicological properties have not been fully characterized; use standard laboratory precautions.

Label elements

No specific GHS pictogram or signal word is assigned in this legacy research-use sheet unless otherwise stated by current jurisdiction-specific supplier documentation.

Other hazards

Avoid dust formation. Avoid inhalation, ingestion, and contact with skin or eyes. Use appropriate laboratory personal protective equipment.

Section 4 - First Aid Measures

Description of first aid measures

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration and obtain medical attention.

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. Remove contact lenses if easy to do.

If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water and seek medical advice if unwell.

Most important symptoms and effects No product-specific clinical symptoms have been established; toxicological data are limited.



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Section 5 - Fire Fighting Measures

Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Thermal decomposition may produce carbon oxides and nitrogen oxides. Sulfur-containing products may additionally produce sulfur oxides.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing dust, vapours or mist. For personal protection see Section 8.

Environmental precautions

Avoid uncontrolled release to drains or the environment.

Methods and materials for containment and cleaning up

Sweep up carefully without generating dust. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling

Provide appropriate exhaust ventilation where dust is formed. Avoid contact with skin and eyes. Use good laboratory hygiene.

Conditions for safe storage

Cool dry place ($\leq 25^{\circ}\text{C}$). Keep container tightly closed and dry. Follow the product label and lot-specific documentation.

Specific end use(s)

Peptide synthesis and research chemical use only.

Section 8 - Exposure Controls / PPE

Control parameters

No substance-specific occupational exposure limit has been identified.

Appropriate engineering controls

General laboratory hygiene practice. Provide adequate ventilation, particularly where dust may be generated.

Personal protective equipment - Eye/face protection

Use safety glasses or chemical safety goggles meeting appropriate standards.



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Skin protection

Handle with suitable chemical-resistant gloves. Inspect gloves prior to use and use proper glove-removal technique. Wash and dry hands after handling.

Body protection

Choose laboratory coat or other protective clothing appropriate to the quantity handled and the specific workplace.

Respiratory protection

Respiratory protection is normally not required under adequately ventilated conditions. Where nuisance dust may occur, use suitable particulate respiratory protection.

Control of environmental exposure

Avoid uncontrolled release to the environment.

Section 9 - Physical/Chemical Properties

Appearance: White powder

Molecular Weight: 353.41 AMU

Molecular Formula: C₂₁H₂₃NO₄

Odor: No data available

Solubility: No safety-relevant data available

Section 10 - Stability and Reactivity

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Excess heat, moisture and incompatible reagents.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions may include carbon oxides and nitrogen oxides. Sulfur oxides may form for sulfur-containing compounds.



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Section 11 - Toxicological Information

Information on toxicological effects

Acute toxicity No adequate data available.

Skin corrosion/irritation No adequate data available.

Serious eye damage/eye irritation No adequate data available.

Respiratory or skin sensitization No adequate data available.

Germ cell mutagenicity No adequate data available.

Carcinogenicity No component is known from this sheet to be present at $\geq 0.1\%$ as an IARC-listed human carcinogen.

Reproductive toxicity No adequate data available.

Specific target organ toxicity No adequate data available.

Aspiration hazard No adequate data available.

Additional Information

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

Section 12 - Ecological Information

Toxicity No data available.

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Results of PBT and vPvB assessment

No product-specific PBT/vPvB assessment has been established in this legacy research-use sheet.



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Other adverse effects

No data available.

Section 13 - Disposal Considerations**Waste treatment methods**

Product Offer surplus and non-recyclable material to a licensed disposal company in accordance with applicable federal, state, local and institutional regulations.

Contaminated packaging Dispose of as unused product unless applicable regulations permit another method.

Section 14 - Transport Information

UN number Not assigned in this legacy research-use sheet.

UN proper shipping name ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods, subject to confirmation against current carrier and jurisdictional requirements.

Transport hazard class(es) Not assigned.

Packaging group Not assigned.

Environmental hazards No product-specific transport environmental hazard identified.

Special precautions for users Verify current shipping requirements before transport.

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulatory status may vary by jurisdiction and intended use. Users are responsible for determining applicable requirements.

Chemical safety assessment No product-specific chemical safety assessment has been carried out for this legacy research-use sheet.

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. It reflects the present state of our knowledge regarding appropriate safety precautions and does not represent any guarantee of product properties. Alan Scientific Inc. shall not be held liable for damage resulting from handling or contact with the above product.