1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers
Product Name: Fmoc-mini-PEG™ Fmoc-8-Amino-3,6-Dioxoocanoic Acid
Catalog Number: FXX-5521-PI
CAS Number: 166108-71-0

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 address: Peptides International, Inc.
11621 Electron Drive
Louisville, KY 40299
USA
Phone: 502-266-8787
USA and Canada: 800-777-4779
USA
Fax: 502-267-1329
Email: peptides@pepnet.com

1.4 Emergency Telephone number
Emergency Phone: 800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Not a hazardous substance.

2.2 GHS Label elements
No known hazards.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Product Name: Fmoc-mini-PEG™ Fmoc-8-Amino-3,6-Dioxoocanoic Acid
Trade Name: Fmoc-mini-PEG™, 9-Fluorenylmethoxycarbonyl-8-Amino-3,6-Dioxoocanoic Acid, Fmoc-[2-(2-Amino-ethoxy)-ethoxy]-acetic acid
Formula: C_{21}H_{23}NO_{6}
Molecular Weight: 385.42
CAS Number: 166108-71-0

4. FIRST-AID MEASURES

4.1 Description of first aid measures
General advice: Consult a doctor and show this safety data sheet.
If inhaled: Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

In case of skin contact: Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

In case of eye contact: Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

If swallowed: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatment needed
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
No known hazards.

5.3 Precautions for fire-fighters
Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution.
and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections
For required PPE see section 8. For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities.
Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Desiccate at 4°C.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters: Contains no substances with occupational exposure limit values.

8.2 Appropriate engineering controls
Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

8.3 Individual protection measures/ Personal protective equipment (PPE)
Eye/face protection: Use appropriate safety glasses as tested and approved under NIOSH (US) or EN 166(EU) government standards.
Skin protection: Use appropriate chemical resistant. Gloves should be inspected before use. Wash and dry hands thoroughly after handling.
Body protection: Wear appropriate protective clothing.
Respiratory protection: If risk assessment indicates necessary, use a suitable respirator. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance: Off-white powder
Odor: No data available
Odor threshold: No data available
pH: No data available  
Melting / freezing point: 95 – 98 °C  
Boiling point / range: No data available  
Flash point: No data available  
Evaporation rate: No data available  
Flammability (solid, gas): No data available  
Upper / lower flammability or explosive limits: No data available  
Vapor pressure: No data available  
Vapor density: No data available  
Relative density: No data available  
Solubility: ethanol, ethyl acetate, dimethylformamide (DMF)  
Partition coefficient: No data available  
Auto-ignition temperature: No data available  
Decomposition temperature: No data available  
Viscosity: No data available  
Oxidizing properties: No data available  
Explosive properties: No data available  

9.2 Other safety information  
No data available  

10. STABILITY AND REACTIVITY

10.1 Reactivity: Stable under recommended transport or storage conditions. 
10.2 Chemical stability: Stable under recommended storage conditions. 
10.3 Possibility of hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below. 
10.4 Conditions to avoid: Strong oxidizing reagents. 
10.5 Incompatible materials: Strong acids/alkalis, strong oxidizing/reducing agents. 
10.6 Hazardous decomposition products: Oxides of carbon (CO, CO₂) and nitrogen (NO, NO₂, ...). 

11. TOXICOLOGICAL INFORMATION

11.1 Symptoms / Routes of exposure  
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.  
Ingestion: There may be irritation of the throat.  
Skin: There may be mild irritation at the site of contact.  
Eyes: There may be irritation and redness. 
Delayed / Immediate Effects: No known symptoms. 

11.2 Delayed/immediate effects and also chronic effects from short- and long-term exposure. 
Skin corrosion/irritation: Classification criteria are not met based on available data
Serious eye damage/irritation: Classification criteria are not met based on available data
Respiratory or skin sensitization: Classification criteria are not met based on available data
Germ cell mutagenicity: Classification criteria are not met based on available data
Carcinogenicity: Classification criteria are not met based on available data
Reproductive toxicity: Classification criteria are not met based on available data
Specific target organ toxicity - single exposure: Classification criteria are not met based on available data
Specific target organ toxicity - repeated exposure: Classification criteria are not met based on available data
Aspiration hazard: Classification criteria are not met based on available data

11.3 Acute Toxicity
Classification criteria are not met based on available data

11.4 Additional Information: RTECS No: GT9195500, Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin. To the best of our knowledge, the chemical, physical and toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxictiy: 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
12.6 Other adverse effects: May be harmful to the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with National legislation.
13.2 Contaminated packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with National legislation

14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG, DOT, and IATA.
14.1 UN-Number: Does not meet the criteria for classification as hazardous for transport.
14.2 UN proper shipping name: Does not meet the criteria for classification as hazardous for transport.
14.3 Transport hazard class(es): Does not meet the criteria for classification as hazardous for transport.
14.4 Packaging group: Does not meet the criteria for classification as hazardous for transport.
14.5 Environmental hazards: This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.
14.6 Special precautions for users: No data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: No data available
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been made for this product

16. OTHER INFORMATION

We believe the above information to be current as of the date of this material safety data sheet. Since these data and conditions regarding the use of this product are only meant as a guide, Peptides International assumes no liability from its use or for any damage resulting from handling or from contact with the above product. Peptides International, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user is responsible for handling the product safety. Users should also consult other appropriate sources for information regarding the suitability of this product for their own specific applications. Please remember that all Peptides International products are sold for research purposes only and not intended for human use.

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