Safety Data Sheet

1. Identification of Substance/ Identification of Company

Product: Fmoc-Cit-OH
Catalog #: UFR101
Chemical Formula: $C_{21}H_{23}N_3O_5$
Synonyms: Nα-Fmoc-L-citrulline

Supplier: AAPPTec, LLC
6309 Shepherdsville Road
Louisville, Kentucky USA
40228
Telephone: 502-968-2223
Fax: 502-968-3338

2. Composition/ information on ingredients

Substance/preparation: Substance
Chemical Name: Nα-Fmoc-L-citrulline
CAS #: [133174-15-9]
EC #: Not available

3. Hazards Identification

Physical/chemical hazards: No known hazards
Human health hazards: No known hazards

4. First Aid Measures

First Aid Measures

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water.
Skin Contact: Wash off with soap and plenty of water.

Eye Contact: Check for and remove any contact lenses. Flush eyes with water as a precaution.

Effects and Symptoms

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin Contact: May be harmful is absorbed through skin. May cause skin irritation.

Eye contact: May cause eye irritation

Aggravating conditions: Repeated or prolonged exposure is not known to aggravate medical condition.

5. Fire-fighting Measures

Flammability of Product: No data available

Extinguishing Media (Small Fire): Use a carbon dioxide or dry chemical extinguisher.

Extinguishing Media (Large Fire): Use water spray, fog, or foam. Do not use water jet.

Hazardous thermal decomposition products: Oxides of carbon (CO, CO_2) and nitrogen (NO, NO_2, …).

Special fire-fighting procedures: Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Protection of fire-fighters: Use an approved/certified respirator or equivalent.

6. Accidental Release Measures

Personal Precautions: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient, consult a specialist before handling this product.

Small Spill or Leak: Use appropriate tools to put spilled material into a convenient waste disposal container.

Large Spill or Leak: Use a shovel to put the spilled material into a convenient waste disposal container.

7. Handling and Storage

Handing: Keep away from heat. Keep away from sources of ignition. Do not breath dust.

Storage: Keep container tightly closed. Do not store above 5˚C (41˚F).

8. Exposure Controls/Personal Protection

Engineering Measures: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume, or mist use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hygiene Measures: Wash hands after handling and before eating, smoking, using lavatory, and end of the day.

Exposure Limits

Ingredient Name: Nα-Fmoc-L-citrulline
Occupational Exposure Limit: No data available

Personal Protective Equipment
Skin and Body: Lab coat
Hands: Gloves
Eyes: Safety glasses

9. Physical and Chemical Properties

Physical State: Solid
Color: White
Molecular Weight: 397.4
Melting Point: No data available
Solubility: No data available
Flash Point: No data available
Explosive Properties
Risk of explosion by mechanical impact: No data available
Risk of explosion by static discharge: No data available

10. Stability and Reactivity

Stability: Stable under recommended storage conditions.
Conditions to Avoid: Strong oxidizing reagents
Hazardous Decomposition Products: Oxides of carbon (CO, CO_2) and nitrogen (NO, NO_2, …).

11. Toxicological Information

RTECS #: Not available
Local Effects
Skin irritation: No data available
Acute Toxicity: No data available

Chronic Toxicity: No data available
Other Toxic Effects on Humans: No data available
Carcinogenic Effects: No data available
Mutagenic Effects: No data available
Reproductive Toxicity: No data available
Teratogenic Effects: No data available

12. Ecological Information

Ecotoxicity: No data available
Toxicity of the Products of Biodegradation: This product itself and its degradation products are not toxic.

13. Disposal Considerations

Methods of Disposal,
Waste Residues,
Contaminated Packaging: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transportation

International Transport Regulations

Land-Road/Railway

ADR/RID Class: Not controlled under ARD

Sea

IMDG Class: Not controlled under IMDG

Air

IATA-DGR Class: Not controlled under IATA

Special Provisions for Transport: Not applicable

15. Regulatory Information

EU Regulations

Risk Phrases: This product is not classified according to EU regulations.

U.S. Federal Regulations

TSCA: No products were found
SARA 302/304/311/312 extremely hazardous substances: No products were found
SARA 302/304 emergency planning and notification: No products were found
SARA 302/304/311/312 hazardous chemicals: No products were found
SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found
SARA 313 toxic chemical notification and release reporting: No products were found
Clean Water Act (CWA) 307: No products were found
Clean Water Act (CWA) 311: No products were found
Clean Air Act(CAA) 112 accidental release prevention: No products were found
Clean Air Act(CAA) 112 regulated flammable substances: No products were found
Clean Air Act (CAA) 122 regulated toxic substances: No products were found

HCS Classification: Not controlled under the HCS (United States)

State Regulations:

WHMIS (Canada): Not controlled under WHMIS (Canada)

16. Other Information

Hazardous Material Information System (U.S.A.)

Health	**0**
Fire Hazard	**1**
Reactivity	**0**
Personal Protection	**A**

National Fire Protection Association (U.S.A.)



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