



Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810

Number:  
Issue Date

CNLM-4354  
06/22/11

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description L-ASPARAGINE-N-FMOC (U-13C4, 97-99%; U-15N2, 97-99%)

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
ANDOVER, MA 01810  
USA

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://www.isotope.com)

#### Phone Numbers

Emergency Contact Chemtrec  
Emergency Phone 1-800-424-9300 (24 hours)  
  
Customer Service 1-800-322-1174 (8:30-5:30 EST)  
Phone  
Transportation 1-202-483-7616 (24 hours)

### 2 HAZARDS IDENTIFICATION

#### OSHA Hazards

No known OSHA hazards

#### HMIS Ratings

Physical 0  
Flammability 0  
Health 0

#### NFPA Codes

Fire 0  
Health 0  
Reactivity 0

#### Potential Health Effects

Eyes Contact may cause eye irritation.  
Ingestion May be harmful if swallowed.  
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation.



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### 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Composition / Information on Ingredients

Synonyms	Fmoc-Asn-OH. Fmoc-L-asparagine
Chemical Formula	$H_2N^*CO^*CH_2^*CH(*NH-FMOC)^*COOH$
Molecular Weight	360.31
CAS No.	71989-16-7 (unlabeled)
EC No.	276-252-2

### 4 FIRST AID MEASURES

#### First Aid Measures

Eyes	Flush eyes with water as a precaution.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash with soap and plenty of water. Consult a physician.
Additional Information	Move out of dangerous area. Consult a physician and show this safety data sheet.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Fire Fighting Equipment	Wear self contained breathing apparatus for fire fighting if necessary.

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions	Avoid dust formation.
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Environmental Precautions      Do not empty into drains.

Methods and materials for containment and cleanup      Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling

Handling      Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

#### Conditions for Safe Storage

Storage      Store refrigerated (-5 C to 5 C) and desiccated.

### 8 EXPOSURE CONTROL / PERSONAL PROTECTION

#### Personal Protection

Eyes - Face      Wear safety glasses with side shields (or goggles) and a face shield.

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

Respiratory      When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing      Wear suitable protective clothing and gloves.

Work Hygienic Practices      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

#### Physical and Chemical Properties (Unlabeled Compound)

Form      Solid

pH      No data available

Melting Point      190 °C (374 °F)

Boiling Point      No data available



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Flashpoint	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Solubility in Water	No data available
Auto Ignition Temperature	No data available

### 10 STABILITY AND REACTIVITY

#### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Not available
Hazardous decomposition products	Formed under fire conditions: Carbon oxides, nitrogen oxides
Materials to avoid	Strong oxidizing agents

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious Damage/Eye Irritation	No data available
Skin Corrosion/Irritation	No data available
Inhalation	No data available
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Not available



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IARC	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identifiable as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity      Not available

### Specific Target Organ Toxicity

Single Exposure	No data available
Repeated Exposure	No data available

### Signs and Symptoms of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.

### Other Information

General Comments      Not available

## 12 ECOLOGICAL INFORMATION

### Toxicity

Persistence and Degradability      Not available

Bioaccumulative Potential      Not available

Mobility in Soil      Not available

PBT and vPvB Assessment      Not available

Other Adverse Effects      Not available

## 13 DISPOSAL CONSIDERATIONS

### Disposal Considerations





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