

SAFETY DATA SHEET  
**Product Name** Fmoc-L-Leu-OH

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**SECTION 1: IDENTIFICATION**

**1.1 GHS Product identifier**

Product name (2S)-2-(9H-fluoren-9-ylmethoxycarbonylamino)-4-methylpentanoic acid

**1.2 Other means of identification**

Cas No. 35661-60-0  
Other names N-[(9H-Fluoren-9-ylmethoxy)carbonyl]-L-leucine

**1.3 Recommended use of the chemical and restrictions on use**

Identified uses For industry use only.  
Uses advised against no data available

**1.4 Supplier's details**

Company CEM Corporation  
3100 Smith Farm Rd  
Matthews, NC 28106

**1.5 Emergency phone number**

Emergency phone number 704-821-7015  
Service hours Monday to Friday, 8:30am-5pm (EST)

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**SECTION 2: HAZARD(S) IDENTIFICATION**

**2.1 Classification of the substance or mixture**

Not classified.

**2.2 GHS label elements, including precautionary statements**

Pictogram(s) No symbol  
Signal word No signal word.  
Hazard statement(s) none  
Precautionary statement(s)  
Prevention none.  
Response none

Storage none

Disposal none

**2.3 Other hazards which do not result in classification**

None

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common names and synonyms	CAS No	EC Number	Part Number
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(2S)-2-(9H-fluoren-9-ylmethoxycarbonylamino)-4-methylpentanoic acid	(2S)-2-(9H-fluoren-9-ylmethoxycarbonylamino)-4-methylpentanoic acid	35661-60-0	None	A011
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## SECTION 4: FIRST-AID MEASURES

### 4.1 Description of necessary 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

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

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## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media

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

### 5.2 Specific hazards arising from the chemical

no data available

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions



Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal

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## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

Occupational Exposure limit values

no data available

Biological limit values

no data available

### **8.2 Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **8.3 Individual protection measures, such as personal protective equipment (PPE)**

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### **Respiratory protection**

Wear dust mask when handling large quantities.

**Thermal hazards**  
no data available

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	White to off-white crystalline powder
<b>Colour</b>	no data available
<b>Odour</b>	no data available
<b>Melting point/ freezing point</b>	no data available
<b>Boiling point or initial boiling point and boiling range</b>	no data available
<b>Flammability</b>	no data available
<b>Lower and upper explosion limit / flammability limit</b>	no data available
<b>Flash point</b>	no data available
<b>Auto-ignition temperature</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>pH</b>	no data available
<b>Kinematic viscosity</b>	no data available
<b>Solubility</b>	no data available
<b>Partition coefficient n-octanol/water (log value)</b>	no data available
<b>Vapour pressure</b>	no data available
<b>Density and/or relative density</b>	no data available
<b>Relative vapour density</b>	no data available
<b>Particle characteristics</b>	no data available

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

no data available

**10.6 Hazardous decomposition products**

no data available

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**SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute toxicity**

Oral: no data available

Inhalation: no data available

Dermal: no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**STOT-single exposure**

no data available

**STOT-repeated exposure**

no data available

**Aspiration hazard**

no data available

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**SECTION 12: ECOLOGICAL INFORMATION (NON-MANDATORY)**

**12.1 Toxicity**

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: 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

### **12.5 Other adverse effects**

no data available

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## **SECTION 13: DISPOSAL CONSIDERATIONS (NON-MANDATORY)**

### **13.1 Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## **SECTION 14: TRANSPORT INFORMATION (NON-MANDATORY)**

### **14.1 UN Number**

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

### **14.2 UN Proper Shipping Name**

ADR/RID: unknown

IMDG: unknown

IATA: unknown

### **14.3 Transport hazard class(es)**

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

### **14.4 Packing group, if applicable**

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

### **14.5 Environmental hazards**

ADR/RID: no IMDG: no IATA: no

### **14.6 Special precautions for user**

no data available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
no data available

**SECTION 15: REGULATORY INFORMATION (NON-MANDATORY)**

**15.1 Safety, health and environmental regulations specific for the product in question**

**SECTION 16: OTHER INFORMATION**

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(2S)-2-(9H-fluoren-9-ylmethoxycarbonylamino)-4-methylpentanoic acid	(2S)-2-(9H-fluoren-9-ylmethoxycarbonylamino)-4-methylpentanoic acid	35661-60-0	None	A011
<b>European Inventory of Existing Commercial Chemical Substances (EINECS)</b>				Listed.
<b>EC Inventory</b>				Listed.
<b>United States Toxic Substances Control Act (TSCA) Inventory</b>				Not Listed.
<b>China Catalog of Hazardous chemicals 2015</b>				Not Listed.
<b>New Zealand Inventory of Chemicals (NZIoC)</b>				Not Listed.
<b>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</b>				Not Listed.
<b>Vietnam National Chemical Inventory</b>				Not Listed.
<b>Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)</b>				Listed.

**Information on revision**

**Revision Date** Aug 08/2020

**Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

**References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website:

<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>  
ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>  
Germany GESTIS-database on hazard substance, website:  
<http://www.dguv.de/ifa/gestis/gestisstoffdatenbank/index-2.jsp>  
ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

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