

according to Regulation (EC) No 1907/2006

Fmoc-alpha-Me-L-Leu-OH

Revision date: 12.04.2019

Product code: FAA3045

Page 1 of 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Fmoc-alpha-Me-L-Leu-OH

Further trade names

(S)-N-alpha-(9-Fluorenylmethyloxycarbonyl)-C-alpha-methyl-leucine CAS No: 312624-65-0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Laboratory chemical. Manufacture of the substance.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

| Company name: | Iris Biotech GmbH | |
|--------------------------|-------------------------------------|-----------------------------|
| Street: | Adalbert-Zoellner-Straße 1 | |
| Place: | D-95615 Marktredwitz, Germany | |
| Post-office box: | 568 | |
| | D-95605 Marktredwitz, Germany | |
| Telephone: | +49 9231 97121 0 | Telefax: +49 9231 97121 99 |
| e-mail: | info@iris-biotech.de | |
| Contact person: | Compliance Department | Telephone: +49 9231 97121 0 |
| e-mail: | sds@iris-biotech.de | |
| Internet: | www.iris-biotech.de | |
| Responsible Department: | Only available during office hours. | |
| 1.4. Emergency telephone | +49 (0)89 19240 (POISON CENTER | R Munich: 24 h) |

number:

Further Information

This product does not meet the criteria for classification into a hazardous class according to Regulation (EC) No 1272/2008 on the classification, labeling and packaging of substances and mixtures. A safety data sheet is provided which does not fully comply with Article 31 and Annex II of REACH.

Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 2: Hazards identification

2.2. Label elements

Regulation (EC) No. 1272/2008

Precautionary statements

| P202 | Do not handle until all safety precautions have been read and understood. |
|------|---|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P262 | Do not get in eyes, on skin, or on clothing. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing |
| | protection. |

Additional advice on labelling

Warning - substance not yet tested completely.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

according to Regulation (EC) No 1907/2006

Fmoc-alpha-Me-L-Leu-OH

Revision date: 12.04.2019

Product code: FAA3045

Page 2 of 7

3.1. Substances

Chemical characterization

(S)-N-alpha-(9-Fluorenylmethyloxycarbonyl)-C-alpha-methyl-leucineSum formula:C22H25NO4Molecular weight:367.44 g/mol

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps.

In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO2). Sand.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Thermal decomposition can lead to the escape of irritating gases and vapours. In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrogen oxides (NOx).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Usual measures for fire prevention.

SECTION 6: Accidental release measures

according to Regulation (EC) No 1907/2006

Fmoc-alpha-Me-L-Leu-OH

Revision date: 12.04.2019

Product code: FAA3045

Page 3 of 7

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. In case of fire: Evacuate area.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up mechanically, placing in appropriate containers for disposal. Avoid dust formation. Clear contaminated areas thoroughly.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Avoid contact with skin, eyes and clothes. Provide adequate ventilation. When using do not eat, drink or smoke. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Handle and store contents under inert gas. Protect from moisture. storage temperature: $+2^{\circ}C - +8^{\circ}C$

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Appropriate engineering controls

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Individual protection measures, such as personal protective equipment



according to Regulation (EC) No 1907/2006

Fmoc-alpha-Me-L-Leu-OH

Revision date: 12.04.2019

Product code: FAA3045

Page 4 of 7

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: Colour: | Powder white/ whitish | |
|--|--------------------------|----------------------------------|
| Odour: | No data available | |
| | | |
| Changes in the physical state Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | not determined |
| Sublimation point: | | not determined |
| Softening point: | | not determined |
| Flash point: | | No data available |
| Flammability | | |
| Solid/liquid: | | not determined |
| Gas: | | not applicable |
| Explosive properties No data available | | |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Auto-ignition temperature: | | not determined |
| Self-ignition temperature | | |
| Solid: Gas: | | not determined not applicable |
| Decomposition temperature: | | not determined |
| pH-Value: | | not determined |
| Water solubility: | | No data available |
| Solubility in other solvents not determined | | |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: | | not determined |
| Density: | | not determined |
| | | |



according to Regulation (EC) No 1907/2006

| Fmoc-alpha-Me-L-Leu-OH | | | | |
|---|-----------------------|-------------|--|--|
| Revision date: 12.04.2019 | Product code: FAA3045 | Page 5 of 7 | | |
| Relative vapour density: | not determined | | | |
| 9.2. Other information | | | | |
| Information with regard to physical h | | | | |
| Sustaining combustion: | No data available | | | |
| Oxidizing properties No data available | | | | |
| Other safety characteristics | | | | |
| Solvent content: | No data available | | | |
| Solid content: | not determined | | | |
| Evaporation rate: | not determined | | | |
| | | | | |

Further Information

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

Protect from moisture. Keep away from heat.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours. In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrogen oxides (NOx).

Further information

In case of fire: See chapter 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

Irritation and corrosivity

Causes serious eye irritation. Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

STOT-single exposure

Based on available data, the classification criteria are not met.

according to Regulation (EC) No 1907/2006

Fmoc-alpha-Me-L-Leu-OH

Revision date: 12.04.2019

Product code: FAA3045

Page 6 of 7

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available

Practical experience No data available

Further information

RTECS: No data available

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

SECTION 12: Ecological information

12.1. Toxicity

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. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.7. Other adverse effects

Warning - substance not yet tested completely.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Handle contaminated packages in the same way as the substance itself.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information Land transport (ADR/RID) 14.2. UN proper shipping name: No dangerous good in sense of these transport regulations. Inland waterways transport (ADN) No dangerous good in sense of these transport regulations. 14.2. UN proper shipping name: No dangerous good in sense of these transport regulations. Marine transport (IMDG) No dangerous good in sense of these transport regulations. 14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.



according to Regulation (EC) No 1907/2006

| Fmoc-alpha-Me-L-Leu-OH | | | | |
|--|---|-------------|--|--|
| Revision date: 12.04.2019 | Product code: FAA3045 | Page 7 of 7 | | |
| Air transport (ICAO-TI/IATA-DGR) | | | | |
| 14.2. UN proper shipping name: | No dangerous good in sense of these transport regulations. | | | |
| 14.5. Environmental hazards | | | | |
| ENVIRONMENTALLY HAZARDOUS: | No | | | |
| 14.6. Special precautions for user No information available. 14.7. Maritime transport in bulk according not applicable | to IMO instruments | | | |
| SECTION 15: Regulatory information 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | | | | |
| | | | | |
| EU regulatory information | | | | |
| EU regulatory information Information according to 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) | | | |
| Information according to 2012/18/EU | Not subject to 2012/18/EU (SEVESO III) | | | |
| Information according to 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). | | | |
| Information according to 2012/18/EU (SEVESO III): National regulatory information | Observe restrictions to employment for juveniles according to the 'juvenile | | | |
| Information according to 2012/18/EU (SEVESO III): National regulatory information Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). | | | |

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

| | •• • | |
|------|--|------------------|
| H317 | May cause an allergi | c skin reaction. |
| H319 | Causes serious eye i | rritation. |
| | •••••••••••••••••••••••••••••••••••••• | |

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.