Safety Data Sheet (SDS)

| Revision Number: 3.0 | | Last updated February 17, 2021 | |
|-----------------------------|-------------------|-------------------------------------|--|
| 1. Product and Company Iden | ntification_ | | |
| Product Name: | Fmoc - Nα - | · methyl - L – leucine; | |
| | Fmoc - MeI | Leu – OH | |
| Manufacturer/Supplier: | AnaSpec, In | ıc. | |
| | www.anasp | ec.com | |
| | 34801 Cam | ous Drive | |
| | Fremont, CA 94555 | | |
| | Tel: 510-791-9560 | | |
| | Fax: 510-791-9572 | | |
| | Email: servi | ce@anaspec.com | |
| | Kaneka Eur | ogentec SA, | |
| | Rue du Bois | S Saint Jean 5 4102 Seraing Belgium | |
| | Tel. +32-4-3 | 3727400 | |
| | Fax. +32-4- | 3727500 | |
| | E-mail info | @eurogentec.com | |
| | Kaneka Eur | ogentec Helpdesk | |
| | Tel. +32-4-3 | 3727665 | |
| Catalog Number | AS-21079; | AS-21080 | |

2. Hazards Identification

Emergency Overview: We do recommend handling all chemicals with caution. Use proper protective equipment when handling chemicals. To our knowledge, the hazards of this material have not been thoroughly investigated.

GHS Hazard Classification: Not a hazardous substance or mixture

GHS Physical Hazards: Not a hazardous substance or mixture

GHS Health and Environmental Hazards: Not a hazardous substance or mixture

GHS Signal Words: N/A

GHS Hazard Symbol/Pictogram: N/A

GHS Hazard Statements: N/A

GHS Precautionary Statements: N/A

Potential Health Effects for:

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. Good hygiene practice requires that exposure be kept to a minimum and that suitable control

measures be used in an occupational setting.

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Skin: In case of contact, immediately wash skin with soap and copious amount of water.

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Chronic Exposures: No information available. We recommend limiting prolonged exposure.

Target Organs: No information available

HMIS Classification

Health hazard: 0

Chronic Health Hazard: 0

Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

3. Composition

Ingredients/Components:

Chemical Name: Fmoc - Nα - methyl - L – leucine; Fmoc - MeLeu – OH

Molecular formula: C22H25NO4

Molecular weight: 367.4 CAS-No 103478-62-2

EC-No N/A

4. First Aid Measures

| Inhalation: | If dust is inhaled, remove from contaminated area. |
|-------------|---|
| innatation. | |
| | Encourage patient to blow nose to ensure clear passage of breathing. |
| | If irritation or discomfort persists seek medical attention. |
| Ingestion: | If swallowed do NOT induce vomiting. |
| | If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to |
| | maintain open airway and prevent aspiration. |
| | Observe the patient carefully. |
| | Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably |
| | drink. |
| | Seek medical advice. |
| Skin: | If skin or hair contact occurs: |
| | Flush skin and hair with running water (and soap if available). |

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| _ | Seek medica | Seek medical attention in event of irritation. | | |
|--------------------------------------|-------------------|---|--|--|
| Eyes: | | | | |
| Lyes. | - | roduct comes in contact with the eyes: at immediately with fresh running water. | | |
| | | | of the eye by keeping eyelids apart and away from eye and moving the | |
| | | | iting the upper and lower lids. | |
| | | | eek medical attention. | |
| | ii pain persis | ts of feedis s | cer medical attention. | |
| 5. Fire Figh | nting Measures | | | |
| Extinguishin | g media: | | Water spray or fog. | |
| 2 | o meaner | | Alcohol resistant foam. | |
| | | | Dry chemical powder. | |
| | | | BCF (where regulations permit). | |
| | | | Carbon dioxide | |
| | | | | |
| Special firefi | ighting procedure | ?s: | Alert Emergency Responders and tell them location and nature of hazard. | |
| | | | Wear breathing apparatus plus protective gloves. | |
| | | | Prevent, by any means available, spillage from entering drains or water | |
| | | | course. | |
| | | | Use water delivered as a fine spray to control fire and cool adjacent | |
| | | | area. | |
| | | | DO NOT approach containers suspected to be hot. | |
| | | | Cool fire exposed containers with water spray from a protected | |
| | | | location. | |
| | | | If safe to do so, remove containers from path of fire. | |
| | | | Equipment should be thoroughly decontaminated after use. | |
| | | | Equipment should be theroughly decontainmated after ase. | |
| Unusual fire and explosions hazards: | | azards: | Emits toxic fumes under fire conditions | |
| 6. Accident | al Release Meas | | | |
| Spill response | | ures | | |
| Spill respons | | | ignition sources. | |
| Spill respons | | Remove all | ignition sources. 1 spills immediately. | |
| Spill respons | | Remove all Clean up al | l spills immediately. | |
| Spill respons | | Remove all Clean up al Avoid conta | l spills immediately. act with skin and eyes. | |
| Spill respons | | Remove all Clean up al Avoid conta Control per | l spills immediately. | |
| Spill respons | | Remove all Clean up al Avoid conta Control per Use dry cle | I spills immediately. act with skin and eyes. rsonal contact by using protective equipment. | |
| Spill respons Containment | se | Remove all Clean up al Avoid cont Control per Use dry cle Place in a s | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal | |
| | se | Remove all Clean up al Avoid cont: Control per Use dry cle Place in a s Avoid all p | I spills immediately. act with skin and eyes. rsonal contact by using protective equipment. an up procedures and avoid generating dust. | |
| | se | Remove all Clean up al Avoid cont: Control per Use dry cle Place in a s Avoid all p Wear protec Use in a we | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. | |
| | se | Remove all Clean up al Avoid cont: Control per Use dry cle Place in a s Avoid all p Wear protec Use in a we | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. | |
| | se | Remove all Clean up al Avoid control Control per Use dry cle Place in a s Avoid all p Wear proter Use in a we DO NOT el DO NOT al | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. inter confined spaces until atmosphere has been checked. llow material to contact humans, exposed food or food utensils. | |
| | se | Remove all Clean up al Avoid control Control per Use dry cle Place in a s Avoid all p Wear prote Use in a we DO NOT el DO NOT al Avoid control | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. nter confined spaces until atmosphere has been checked. llow material to contact humans, exposed food or food utensils. act with incompatible materials. | |
| | se | Remove all Clean up al Avoid control Control per Use dry cle Place in a s Avoid all p Wear prote Use in a we DO NOT el DO NOT al Avoid control | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. inter confined spaces until atmosphere has been checked. llow material to contact humans, exposed food or food utensils. | |
| | se | Remove all Clean up al Avoid cont: Control per Use dry cle Place in a s Avoid all p Wear protec Use in a we DO NOT el DO NOT al Avoid cont: When hand Keep conta | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. Inter confined spaces until atmosphere has been checked. Illow material to contact humans, exposed food or food utensils. act with incompatible materials. Iling, DO NOT eat, drink or smoke. iners securely sealed when not in use. | |
| | se | Remove all Clean up al Avoid cont: Control per Use dry cle Place in a s Avoid all p Wear protec Use in a we DO NOT al Avoid conta When hand Keep conta Avoid phys | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. inter confined spaces until atmosphere has been checked. llow material to contact humans, exposed food or food utensils. act with incompatible materials. lling, DO NOT eat, drink or smoke. iners securely sealed when not in use. sical damage to containers. | |
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| | se | Remove all Clean up al Avoid control Control per Use dry cle Place in a s Avoid all p Wear prote Use in a we DO NOT el DO NOT al Avoid conta When hand Keep conta Avoid phys Always was Use good o Empty cont following s | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. Inter confined spaces until atmosphere has been checked. Illow material to contact humans, exposed food or food utensils. act with incompatible materials. Iling, DO NOT eat, drink or smoke. iners securely sealed when not in use. sical damage to containers. sh hands with soap and water after handling. ccupational work practice. tainers may contain residual dust which has the potential to accumulate ettling. Such dusts may explode in the presence of an appropriate | |
| | se | Remove all Clean up al Avoid control Control per Use dry cle Place in a s Avoid all p Wear protec Use in a we DO NOT al Avoid conta When hand Keep conta Avoid phys Always was Use good o Empty cont following s ignition sou | I spills immediately. act with skin and eyes. sonal contact by using protective equipment. an up procedures and avoid generating dust. uitable, labeled container for waste disposal ersonal contact, including inhalation. ctive clothing when risk of exposure occurs. ell-ventilated area. Inter confined spaces until atmosphere has been checked. Illow material to contact humans, exposed food or food utensils. act with incompatible materials. Iling, DO NOT eat, drink or smoke. iners securely sealed when not in use. sical damage to containers. sh hands with soap and water after handling. ccupational work practice. tainers may contain residual dust which has the potential to accumulate ettling. Such dusts may explode in the presence of an appropriate | |

| PPE | Use personal | protective equipment | |
|--|---|---|--|
| | Ose personal protective equipment | | |
| | | | |
| 7. Handling and Stora | | | |
| Store at 4 °C desiccate | ed and protected from | light. Store away from oxidizing agent. | |
| | | | |
| 8. Exposure Controls | / Personal Protectio | <u>on</u> | |
| Engineering controls | Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. Exhaust ventilation should be designed to prevent accumulation and re-circulation of particulates in the workplace. If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently | | |
| PPE | remove the contam | | |
| PPE | Use personal prote | cuve equipment | |
| 9. Physical and Chemi | cal Properties | | |
| Physical State | solid | | |
| Odour | Not available | | |
| Solubility in Water | Not available | | |
| Specific Gravity | Not available | | |
| рН | Not available | | |
| Boiling Point | Not available | | |
| Melting Point | Not available | | |
| Flash Point | N/A | | |
| Vapor Pressure: | N/A | | |
| Vapor Density: | N/A | | |
| | .4114 | | |
| 10. Stability and Read | | No data available | |
| Thermal Decomposition | | | |
| Dangerous Products of Decomposition | | No data available | |
| Dangerous Reactions Keep container tightly of | closed in a dry well-v | COx, NOx when burned ventilated place. Store in 4°C refrigerator. | |
| 11. Toxicological Information | | | |
| RTECS Number | | N/A | |

| Toxicity | No information available. |
|---|--|
| Health Hazards | Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. In an occupational setting however, ingestion of insignificant quantities is not thought to be |
| | cause for concern. |
| Potential Hazards | Not available |
| Carcinogenicity: | No significant acute toxicological data identified |
| OSHA Permissible Exposure Limit(PEL) Data | N/A |
| ACGIH Threshold Limit Values (TLV) | N/A |

Reproductive Toxicity:

No information available

12. Ecological Information

No information available.

13. Disposal Considerations

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

14. Transport Information

| Hazard Class | N/A |
|----------------------------|-----|
| Identification Number | N/A |
| Packing Group | N/A |
| Proper Shipping Name (DOT) | N/A |

15. Regulatory Information

California Proposition 65: N/A

US TSCA (Toxic Substance Control Act): N/A

US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act: N/A

US SARA Title III (Superfund Amendments and Reauthorization Act: N/A

US Other: N/A

EC EINICS (European Inventory of Existing Commercial Chemical Substances) Number: N/A

EC Risk Statements: N/A

Other Country Regulations: N/A

16. Other Information

It is not intended for food, drug, household, agricultural or cosmetic use. A technically qualified

individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.