

# MATERIAL SAFETY DATA SHEET

## Section 1 - Identification

|                     |                                                                                                                                     |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Product identifier  | Fmoc-D-Trp(Boc)-OH                                                                                                                  |
| Catalog No.         | AS3038                                                                                                                              |
| Other identifiers   | Fmoc-D-Trp(Boc)-OH; N-alpha-Fmoc-Nin-Boc-D-tryptophan                                                                               |
| Recommended use     | Laboratory research and peptide synthesis, including Fmoc solid-phase peptide synthesis (SPPS).                                     |
| Restrictions on use | For research use only. Not for human or veterinary use, therapeutic use, diagnostic use, food, household, or consumer applications. |
| Responsible party   | Alan Scientific Inc.                                                                                                                |
| U.S. address        | 9031 Shady Grove Court, Gaithersburg, MD 20877 U.S.                                                                                 |
| Contact             | +1 888-757-1116   contactus@alanscientific.com   www.alanscientific.com                                                             |
| Emergency telephone | +1 888-757-1116                                                                                                                     |

## Section 2 - Hazard(s) Identification

|                          |                                                                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OSHA HCS classification  | Not classified as hazardous under OSHA HCS based on the primary reference supplier information reviewed for this draft. Final release should remain aligned with the lot-specific upstream supplier MSDS. |
| Signal word              | None assigned in this draft.                                                                                                                                                                              |
| Hazard statements        | None assigned under OSHA HCS in this draft.                                                                                                                                                               |
| Pictograms               | None assigned in this draft.                                                                                                                                                                              |
| Precautionary statements | Use standard laboratory precautions. Avoid dust generation, inhalation, ingestion, and unnecessary skin or eye contact.                                                                                   |
| Classification note      | No specific OSHA HCS health-hazard classification was identified in the primary reference supplier summary reviewed for this draft.                                                                       |

## Section 3 - Composition / Information on Ingredients

|                                |                                                                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Substance / mixture            | Substance                                                                                                                          |
| Chemical name                  | N-alpha-Fmoc-N(indole)-Boc-D-tryptophan                                                                                            |
| CAS No.                        | 163619-04-3                                                                                                                        |
| Molecular formula              | C31H30N2O6                                                                                                                         |
| Purity / concentration         | Product-specific; refer to Certificate of Analysis (COA).                                                                          |
| Hazard-contributing impurities | No product-specific impurity classification assigned in this draft; refer to lot-specific COA and upstream supplier documentation. |

## Section 4 - First-Aid Measures

Inhalation: Move to fresh air. Obtain medical attention if symptoms occur or persist. Skin contact: Remove contaminated clothing and wash skin thoroughly with soap and water. Eye contact: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do, then continue rinsing. Ingestion: Rinse mouth. If conscious, give water. Do not give anything by mouth to an unconscious person. Symptoms/effects: No specific product symptoms are established in this draft. Treat symptomatically and supportively.

## Section 5 - Fire-Fighting Measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide, as appropriate for the surrounding fire. Specific hazards: Combustion or thermal decomposition may generate carbon oxides and nitrogen oxides; sulfur-containing products may additionally generate sulfur oxides. Firefighter protection: Wear self-contained breathing apparatus and appropriate protective equipment when conditions warrant.

## Section 6 - Accidental Release Measures

Avoid dust formation and inhalation. Provide ventilation and use appropriate personal protective equipment. Collect material carefully without generating dust and place in a suitable closed container for disposal. Avoid unnecessary environmental release.

## Section 7 - Handling and Storage

Handle using good laboratory practice. Avoid inhalation of dust and contact with eyes, skin, and clothing. Store tightly closed in a cool, dry, well-ventilated area and follow the lot-specific label / COA. Protect from moisture, contamination and strong oxidizing agents.

## Section 8 - Exposure Controls / Personal Protection

Engineering controls: Use general laboratory ventilation; local exhaust may be appropriate where dust is generated. Personal protective equipment: laboratory coat, safety glasses and suitable chemical-resistant gloves. Respiratory protection is normally not required under controlled handling; use suitable particulate protection if airborne dust is generated and engineering controls are insufficient.

## Section 9 - Physical and Chemical Properties

|                                 |                                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------------------------|
| Physical state                  | Solid                                                                                               |
| Appearance                      | White to off-white powder or crystalline solid; lot-specific appearance should be confirmed by COA. |
| Odor                            | No data available                                                                                   |
| pH                              | No data available                                                                                   |
| Melting point                   | No harmonized lot-specific value assigned in this draft                                             |
| Boiling point / range           | No data available                                                                                   |
| Flammability                    | No data available                                                                                   |
| Flash point                     | No data available                                                                                   |
| Explosion / flammability limits | No data available                                                                                   |
| Auto-ignition temperature       | No data available                                                                                   |
| Decomposition temperature       | No data available                                                                                   |
| Vapor pressure                  | No data available                                                                                   |
| Density / relative density      | No data available                                                                                   |
| Solubility                      | Product / lot-specific; consult COA or technical data                                               |
| Partition coefficient           | No data available                                                                                   |
| Kinematic viscosity             | Not applicable to supplied solid                                                                    |
| Particle characteristics        | No data available                                                                                   |
| Molecular weight                | 526.58 g/mol                                                                                        |

**Section 10 - Stability and Reactivity**

Reactivity: No specific reactivity data available. Chemical stability: Expected to be stable under recommended storage conditions. Hazardous reactions: No hazardous polymerization is known under recommended handling conditions. Conditions to avoid: Heat, moisture, contamination and conditions inconsistent with the lot-specific storage recommendation. Incompatible materials: Strong oxidizing agents. Hazardous decomposition products: Carbon oxides and nitrogen oxides; sulfur oxides may form for sulfur-containing compounds.

**Section 11 - Toxicological Information**

|                                         |                                                                                                                      |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Likely exposure routes</b>           | Possible routes include inhalation of dust, eye contact, skin contact and ingestion.                                 |
| <b>Acute toxicity</b>                   | No numerical product-specific acute-toxicity data assigned in this draft.                                            |
| <b>Skin corrosion / irritation</b>      | No product-specific data assigned in this draft.                                                                     |
| <b>Eye damage / irritation</b>          | No product-specific data assigned in this draft.                                                                     |
| <b>Respiratory / skin sensitization</b> | No product-specific data assigned in this draft.                                                                     |
| <b>Germ cell mutagenicity</b>           | No product-specific data assigned in this draft.                                                                     |
| <b>Carcinogenicity</b>                  | No product-specific carcinogenicity conclusion is assigned beyond currently reviewed reference information.          |
| <b>Reproductive toxicity</b>            | No product-specific data assigned in this draft.                                                                     |
| <b>STOT - single exposure</b>           | No product-specific data assigned in this draft.                                                                     |
| <b>STOT - repeated exposure</b>         | No product-specific data assigned in this draft.                                                                     |
| <b>Aspiration hazard</b>                | Not applicable to the supplied solid based on current information.                                                   |
| <b>Additional information</b>           | Chemical, physical and toxicological properties may not be fully characterized. Use good laboratory safety practice. |

**Section 12 - Ecological Information**

Ecotoxicity: No quantitative product-specific data assigned in this draft. Persistence / degradability: No data available. Bioaccumulation: No data available. Mobility in soil: No data available. Other adverse effects: Avoid unnecessary environmental release.

**Section 13 - Disposal Considerations**

Dispose of product, residues and contaminated packaging in accordance with applicable federal, state, local and institutional requirements. Do not mix with incompatible waste streams.

**Section 14 - Transport Information**

|                              |                                                                                                                                                                                  |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transport status</b>      | Not assigned as regulated dangerous goods in this draft based on currently reviewed reference information; verify current carrier and jurisdiction requirements before shipment. |
| <b>UN number</b>             | Not assigned in this draft.                                                                                                                                                      |
| <b>Proper shipping name</b>  | Not assigned in this draft.                                                                                                                                                      |
| <b>Hazard class</b>          | Not assigned in this draft.                                                                                                                                                      |
| <b>Packing group</b>         | Not assigned in this draft.                                                                                                                                                      |
| <b>Environmental hazards</b> | See Section 12.                                                                                                                                                                  |
| <b>Special precautions</b>   | Handle in accordance with good laboratory and industrial hygiene practice.                                                                                                       |

**Section 15 - Regulatory Information**

|                                    |                                                                                                                                                                            |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA HCS</b>                    | Prepared in consideration of 29 CFR 1910.1200. Final product classification must remain aligned with the actual supplied material and lot-specific upstream documentation. |
| <b>U.S. / state considerations</b> | Inventory, reporting and state-specific status should be confirmed for the specific transaction and intended use.                                                          |

Section 16 - Other Information

|                                |                                                                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Revision                       | 2.4                                                                                                                                                                 |
| Date of preparation / revision | 2026-09-05                                                                                                                                                          |
| Revision summary               | D-Form amino-acid MSDS prepared using the current Alan Scientific no-logo MSDS template and 9031 Gaithersburg address.                                              |
| Data / assessment basis        | Alan Scientific product identity; current public reference-supplier technical and safety information; PubChem records where available; OSHA HCS (29 CFR 1910.1200). |

**Safety information notice:** This document is intended to support safe laboratory handling of the identified research material. Final external release should be reconciled with the actual upstream supplier MSDS and lot-specific composition / specification. It is not a product specification or warranty.