Alan Scientific Inc. MSDS

MATERIAL SAFETY DATA SHEET

Section 1 - Identification

Product identifier	Fmoc-2,4-difluoro-L-phenylalanine
Catalog No.	AS104
CAS No.	1032337-49-7
Recommended use	Laboratory research; Fmoc-protected amino-acid building block for peptide synthesis and medicinal-chemistry research.
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	No product-specific GHS classification assigned in this document based on the public information reviewed; toxicological data may be incomplete.
Signal word	Not assigned
Hazard statements	No specific hazard statements assigned in this document.
Pictograms	None assigned
Precautionary statements	Avoid breathing dust. Wash thoroughly after handling. Wear suitable gloves and eye protection. Use adequate ventilation.
HNOC	None known based on currently available information.
Unknown acute toxicity	Not applicable - substance, not a mixture.

Section 3 - Composition / Information on Ingredients

Substance / mixture	Substance
Chemical name	Fmoc-2,4-difluoro-L-phenylalanine
CAS No.	1032337-49-7
Molecular formula	C24H19F2NO4
Molecular weight	423.42 g/mol
Purity / concentration	Product-specific; refer to Certificate of Analysis (COA).
Hazard-contributing impurities	No additional hazard-contributing impurities identified in the information reviewed.

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 thoroughly with soap and water. **Eye contact:** Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do. Continue rinsing and obtain medical advice if irritation persists. **Ingestion:** Rinse mouth. Do not induce vomiting unless directed by medical personnel. Obtain medical advice if unwell. Treat symptomatically and supportively.

Section 5 - Fire-Fighting Measures

Suitable extinguishing media: water spray, alcohol-resistant foam, dry chemical, or carbon dioxide as appropriate for the surrounding fire. Thermal decomposition may generate carbon oxides, nitrogen oxides, and product-dependent halogen-containing or sulfur-containing decomposition products. Firefighters should use 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 dry material carefully without generating dust and place in a suitable closed container for disposal. Prevent unnecessary release to drains or the environment.

Section 7 - Handling and Storage

Handle using good laboratory practice. Avoid inhalation of dust and unnecessary contact with skin and eyes. Keep container tightly closed and protect from contamination and moisture. Store according to the product label and lot-specific COA/SDS. Many Fmoc amino-acid building blocks are stored under cool, dry conditions; use the lot-specific label as the controlling storage instruction.

Section 8 - Exposure Controls / Personal Protection

Occupational exposure limits	No substance-specific OSHA PEL or ACGIH TLV identified in the reviewed information.
Engineering controls	Use general laboratory ventilation; local exhaust is appropriate where dust is generated.
Eye / face protection	Safety glasses or suitable chemical splash protection.
Skin / body protection	Suitable chemical-resistant gloves and laboratory clothing.
Respiratory protection	Normally not required under controlled handling; if dust is generated and ventilation is insufficient, use an appropriate NIOSH-approved particulate respirator.
Hygiene measures	Wash hands after handling. Do not eat, drink or smoke in chemical handling areas.

Section 9 - Physical and Chemical Properties

Physical state	Solid
Appearance	Solid/powder; lot appearance may vary and should be checked against the COA.
Odor	No data available
pH	No data available
Melting point	No validated lot-specific value assigned in this MSDS.
Boiling point / range	No data available
Flammability	No data available
Flash point	No data available
Vapor pressure	No data available
Density / relative density	No data available
Solubility	Product-specific; consult technical data/COA if available.
Partition coefficient	No data available
Molecular weight	423.42 g/mol

Section 10 - Stability and Reactivity

Reactivity: No comprehensive product-specific reactivity data are assigned in this document. Chemical stability: Expected to be stable under recommended storage conditions. Conditions to avoid: excessive heat, moisture where relevant, prolonged light exposure where relevant, and conditions inconsistent with the product label. Incompatible materials: strong oxidizing agents and other functional-group-specific reagents unless intentionally used in a controlled synthetic step. Hazardous decomposition products may include carbon oxides, nitrogen oxides, and product-dependent halogen-containing or sulfur-containing species.

Section 11 - Toxicological Information

Likely exposure routes	Inhalation of dust, eye contact, skin contact and ingestion.
Acute toxicity	See Section 2; numerical LD50/LC50 data are not assigned unless supported by reviewed source data.
Skin corrosion / irritation	See Section 2.
Eye damage / irritation	See Section 2.
Respiratory / skin sensitization	See Section 2 where assigned; otherwise no data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	Not identified here as a listed carcinogen by IARC, NTP or OSHA based on currently reviewed information.
Reproductive toxicity	No data available.
STOT - single exposure	See Section 2.
STOT - repeated exposure	No data available.
Aspiration hazard	Not applicable to the supplied solid based on available information.
Additional information	Chemical and toxicological properties may not be fully characterized. Handle using good laboratory safety practice.

Section 12 - Ecological Information

Ecotoxicity: No complete product-specific data available. Persistence / degradability: No data available. Bioaccumulation: No data available. Mobility in soil: No data available. Avoid unnecessary environmental release.

Section 13 - Disposal Considerations

Dispose of product, residues and contaminated packaging in accordance with applicable federal, state and local requirements. Do not mix with incompatible waste streams. Handle uncleaned containers as product residue.

Section 14 - Transport Information

Transport status	No dangerous-goods classification assigned in this document; verify shipment-specific carrier and jurisdictional requirements.
UN number	Not assigned in this document unless a regulated classification is confirmed.
Proper shipping name	Not assigned.
Hazard class	Not assigned.
Packing group	Not assigned.
Environmental hazards	No transport-specific environmental classification assigned in this document.
Special precautions	Use secure, closed packaging appropriate for laboratory chemicals and verify carrier requirements before shipment.

Section 15 - Regulatory Information

OSHA HCS	Prepared with consideration of the OSHA Hazard Communication Standard (29 CFR 1910.1200); hazard classification is stated in Section 2 based on currently reviewed source information.
Other regulatory considerations	Users and importers are responsible for confirming TSCA, state, local and jurisdiction-specific requirements for the specific transaction and use.

Section 16 - Other Information

Revision	1.0
Date of preparation / revision	2026-09-08
Revision summary	Alan Scientific no-logo 16-section MSDS prepared for the Phenylalanine & Tryptophan building-block series.
Data / assessment basis	Alan Scientific product information and currently available public supplier/chemical records reviewed for identity and hazard context. Final external release should remain aligned with the lot-specific upstream supplier SDS and COA.

Safety information notice: Information is provided in good faith for safe handling of the supplied research material and is based on information reasonably available as of the revision date. It is not a product specification or warranty. Users are responsible for determining suitability, controls and regulatory obligations for their specific use.