

MATERIAL SAFETY DATA SHEET

1. Identification

Product: Fmoc-Ser(tBu)-OPfp

Catalog / CAS: AS4167 / 105751-13-1

Use: Laboratory research reagent; not for human or veterinary use.

Supplier: Alan Scientific Inc. | www.alanscientific.com | contactus@alanscientific.com

Contact: +1 888 757 1116 (company contact; 24-hour emergency coverage not verified). For an emergency contact local emergency services or a poison center.

2. Hazard(s) Identification

Assessment: Reference SDS: acute oral toxicity Category 4; skin irritation Category 2; eye irritation Category 2A (Ambeed OSHA HCS).

Label basis: Warning; GHS07 (exclamation mark). H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation.

Precautions: Avoid breathing dust. Wear gloves and eye protection. Wash after handling. Do not eat or drink during use. Avoid environmental release.

3. Composition / Information on Ingredients

Substance: Fmoc-Ser(tBu)-OPfp; CAS 105751-13-1.

Formula / molecular weight: C₂₈H₂₄F₅NO₅ / 549.49 g/mol.

Composition: Research substance. Lot purity, impurities and residual solvents: refer to supplier COA; not established by this document.

4. First-Aid Measures

Exposure: Eyes: rinse with water for at least 15 minutes; remove contact lenses if easy. Skin: wash thoroughly and remove contaminated clothing. Inhalation: move to fresh air. Ingestion: rinse mouth; do not induce vomiting. Seek medical advice for exposure or persistent symptoms; give nothing by mouth to an unconscious person.

5. Fire-Fighting Measures

Response: Use water spray, dry chemical, foam or carbon dioxide appropriate to the surrounding fire. Firefighters require self-contained breathing apparatus and protective clothing. Combustion may release carbon and nitrogen oxides and fluorine-containing fumes.

6. Accidental Release Measures

Personal precautions: Restrict access. Avoid airborne dust and direct contact. Use ventilation and appropriate protective equipment.

Containment and cleanup: Collect carefully into a compatible, closed, labeled waste container without dry sweeping or dispersing dust. Clean residues using a method compatible with the material. Prevent entry into drains and waterways.

7. Handling and Storage

Handling: Use trained laboratory personnel and suitable ventilation. Minimize dust formation. Keep containers closed when not in use. Avoid ingestion, inhalation and contact.

Storage: Follow the Alan lot label for the approved temperature and shelf life; these were not supplied for this draft. Keep tightly closed, dry and protected from incompatible materials. Do not infer stability or expiry from another supplier.

Specific consideration: Active ester: minimize moisture exposure and avoid unintended contact with nucleophiles.

8. Exposure Controls / Personal Protection

Exposure limits: No substance-specific occupational exposure limit established in the evidence reviewed. Apply local workplace requirements and a task-specific risk assessment.

Engineering controls: Provide local exhaust or a laboratory hood where dust or aerosols could be generated. Maintain access to an eyewash and safety shower.

PPE: Wear chemical splash goggles, laboratory clothing and chemical-resistant gloves selected for the task and solvents. Change contaminated gloves. Respiratory protection, if needed, requires a suitable program and qualified selection.

9. Physical and Chemical Properties

Physical form: Solid reported in reference product data; confirm lot appearance.

Formula / molecular weight: C₂₈H₂₄F₅NO₅; 549.49 g/mol.

Unestablished properties: Odor, melting/freezing point, boiling point, flammability, explosive limits, flash point, autoignition/decomposition temperature, pH, viscosity, solubility, partition coefficient, vapor pressure, density, relative vapor density and particle characteristics: no validated Alan lot data available. No numerical values assigned.

10. Stability and Reactivity

Reactivity: May undergo intended acyl transfer and moisture-driven hydrolysis; avoid unintended contact with amines or water.

Stability: No lot-specific stability or shelf-life study reviewed. Store according to the supplier label.

Conditions / incompatibilities: Avoid excessive heat, moisture and strong oxidizing agents. Strong acids or bases can affect protecting groups. Evaluate other reagents before mixing.

Decomposition: Thermal decomposition may produce carbon and nitrogen oxides and fluorine-containing products. Specific decomposition temperatures are not established.

11. Toxicological Information

Likely exposure routes: Inhalation of dust; skin or eye contact; accidental ingestion.

Available hazard evidence: H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation.

Data limitations: No Alan lot acute toxicity measurements or validated dose-response values reviewed. Sensitization, mutagenicity, carcinogenicity, reproductive toxicity, repeated-exposure toxicity and aspiration hazard: insufficient data for an independent assessment.

Symptoms: Irritation may involve redness, discomfort, tearing or respiratory discomfort. Absence of immediate symptoms does not exclude an adverse effect. Seek medical evaluation after significant exposure.

12. Ecological Information

Evidence: No validated Alan product ecotoxicity, degradation, bioaccumulation or soil-mobility data available. PBT/vPvB and endocrine-disruption assessments have not been independently established.

Environmental protection: Avoid release to drains, soil and water. Do not infer environmental safety from missing test data.

13. Disposal Considerations

Waste handling: Collect chemical and contaminated packaging waste for a qualified waste contractor. Follow applicable local and national rules. Do not discharge to drains. Waste classification depends on the final mixture and contamination, not only this starting reagent.

14. Transport Information

Shipping assessment: UN number, proper shipping name, transport hazard class, packing group and environmental hazard status require confirmation by the supplier or qualified shipper for the actual shipment.

Scope: This draft is not a dangerous-goods declaration and does not independently certify exemption under DOT, ADR/RID, IMDG or IATA. Packaging, quantity, impurities and transport mode must be considered.

Precautions: Use compatible, sealed packaging that prevents leakage and physical damage. Bulk maritime transport is not assessed.

15. Regulatory Information

Status: Prepared in a 16-section safety-data format. This document does not certify compliance with every jurisdiction or establish regulatory inventory status.

Classification basis: Reference hazard information, where available, is identified in Sections 2 and 16. A supplier assessment is needed before issuing this as an approved Alan SDS.

Restrictions: For research use only. No authorization for food, drug, clinical or consumer use is implied. Inventory listing, registration and use restrictions must be confirmed for the destination and use.

16. Other Information

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Evidence: Ambeed A368147, SDS, accessed 2026-09-13

Reference URL: <https://file.ambeed.com/static/upload/prosds/am/369/SDS-A368147.pdf>

Preparation limits: Prepared from public identity and safety references, not from an Alan lot COA or signed hazard assessment. Reference supplier classifications are evidence, not a substitute for Alan approval. Confirm classification, labeling, storage, composition, emergency contact and transport before external issue.

Abbreviations: SDS/MSDS: safety data sheet; GHS: Globally Harmonized System; CLP: classification, labeling and packaging; COA: certificate of analysis.

Disclaimer: Information supports laboratory risk assessment and is not a product warranty or a complete account of every hazard. Users must assess the actual process and applicable requirements.