

MATERIAL SAFETY DATA SHEET

Section 1 - Identification

Product identifier	HATU
Catalog No.	AS2004
Other identifiers	O-(7-Azabenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate
Recommended use	Laboratory research and peptide synthesis; coupling reagent/additive for research-scale synthetic chemistry.
Restrictions on use	For research use only. Not for human or veterinary therapeutic, diagnostic, 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	Flammable solid - Category 1; Skin irritation - Category 2; Eye irritation - Category 2; Specific target organ toxicity, single exposure (respiratory system) - Category 3.
Signal word	Danger
Pictograms	GHS02 (Flame); GHS07 (Exclamation mark)
Hazard statements	H228 Flammable solid. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Precautionary statements	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid breathing dust. Use adequate ventilation. Wear protective gloves and eye/face protection. Keep container tightly closed.
HNOC	None identified beyond the hazards described above based on the reviewed sources.

Section 3 - Composition / Information on Ingredients

Substance / mixture	Substance
Chemical name	O-(7-Azabenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate
CAS No.	148893-10-1
Molecular formula	C10H15F6N6OP
Molecular weight	380.24 g/mol
Purity / concentration	Product-specific; refer to Certificate of Analysis (COA).

Section 4 - First-Aid Measures

Inhalation: Move to fresh air and keep comfortable for breathing; obtain medical attention if symptoms occur. Skin contact: Remove contaminated clothing and wash with plenty of soap and water; seek medical advice for persistent irritation or allergic reaction. Eye contact: Rinse cautiously with water for at least 15 minutes, remove contact lenses if easy to do, and obtain medical advice if irritation persists. Ingestion: Rinse mouth; do not induce vomiting unless directed by medical personnel; contact a physician or poison center if unwell. Treat symptomatically.

Section 5 - Fire-Fighting Measures

Use carbon dioxide, dry chemical, foam, or water spray as appropriate. Material is a flammable solid. Containers may rupture or explode when heated. Avoid ignition sources and dust accumulation. Combustion/decomposition may generate carbon oxides, nitrogen oxides and hydrogen fluoride.

Section 6 - Accidental Release Measures

Avoid dust formation and inhalation. Remove ignition sources where applicable. Provide adequate ventilation and wear suitable protective equipment. Sweep or collect carefully without generating dust and place in a closed container for disposal. Prevent release to drains and the environment, especially for environmentally hazardous material.

Section 7 - Handling and Storage

Handle using good laboratory practice. Avoid ingestion, inhalation of dust, and contact with skin and eyes. Store tightly closed, dry, cool and well ventilated. Recommended product storage: 2-8 C. Keep away from heat, sparks, flame and strong oxidizing agents.

Section 8 - Exposure Controls / Personal Protection

Occupational exposure limits	No substance-specific OSHA PEL or ACGIH TLV identified in the reviewed supplier information.
Engineering controls	Use adequate general ventilation; local exhaust is appropriate where dust may be generated. Provide eyewash and safety shower access.
Eye / face protection	Chemical safety glasses or goggles appropriate to the laboratory task.
Skin / body protection	Suitable chemical-resistant gloves and laboratory clothing. Inspect gloves before use.
Respiratory protection	Normally use engineering controls first. If dust exposure cannot be adequately controlled, use an appropriate NIOSH-approved particulate respirator according to applicable respiratory-protection requirements.
Hygiene measures	Wash thoroughly after handling. Do not eat, drink or smoke in chemical handling areas.

Section 9 - Physical and Chemical Properties

Physical state	Solid / powder
Appearance	Beige to off-white powder
Odor	No data available
pH	No data available unless specified by lot or supplier
Melting point / range	Approx. 186-191 C; decomposition reported
Boiling point / range	No data available
Flammability	See Section 2 and Section 5
Flash point	No data available / not applicable to supplied solid where indicated
Auto-ignition temperature	No data available
Decomposition temperature	No complete product-specific value available
Vapor pressure	No data available
Density / relative density	No data available
Water solubility	No fixed Alan Scientific specification; refer to product/lot information where provided
Partition coefficient	No data available
Kinematic viscosity	Not applicable to supplied solid
Molecular weight	380.24 g/mol

Section 10 - Stability and Reactivity

Stable under recommended storage and handling conditions. Avoid excess heat, ignition sources, dust formation and incompatible products. Incompatible with strong oxidizing agents. Hazardous decomposition may include carbon oxides, nitrogen oxides and hydrogen fluoride.

Section 11 - Toxicological Information

Likely routes include inhalation of dust, eye contact, skin contact and ingestion. Skin and eye irritation are expected hazards; dust may irritate the respiratory tract. Public supplier toxicology remains incomplete for several endpoints. Not identified as a listed carcinogen by IARC, NTP or OSHA in the reviewed U.S. supplier documentation.

Section 12 - Ecological Information

No complete ecotoxicity dataset is available. Avoid release to drains or the environment.

Section 13 - Disposal Considerations

Dispose of contents and contaminated packaging in accordance with applicable federal, state and local requirements. Chemical waste generators are responsible for determining appropriate waste classification. Do not mix with incompatible waste streams. Prevent unnecessary environmental release.

Section 14 - Transport Information

UN number	UN1325
Proper shipping name	Flammable solid, organic, n.o.s. (HATU)
Hazard class	4.1
Packing group	II
DOT / IATA / IMDG	Regulated as above based on current U.S. supplier transport documentation.

Section 15 - Regulatory Information

This document is prepared for U.S. research-use supply with reference to OSHA Hazard Communication requirements. Current public U.S. supplier data reviewed for this CAS indicate transport as UN1325, Class 4.1, Packing Group II. Confirm any transaction-specific import, inventory or jurisdictional obligations before shipment or use.

Section 16 - Other Information

Revision	1.0
Date of preparation / revision	2026-09-06
Revision summary	Initial Alan Scientific no-logo MSDS prepared in the current 16-section format for this coupling reagent/additive.
Data / assessment basis	Alan Scientific product information; Thermo Fisher U.S. SDS revised 2025-12-22; current Merck/Sigma product safety information; OSHA Hazard Communication Standard.

Safety information notice: The 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, transport classification and regulatory obligations for their specific lot, use and jurisdiction.