

Safety Data Sheet

Product: alpha-Defensin-1, human | BPT0457

Section 1: Identification

Product Name	alpha-Defensin-1, human
Catalog Number	BPT0457
CAS Number	Not assigned
Supplier	Boston Molecules Inc.
Address	68 TW Alexander Dr, Durham, NC 27709, USA
Phone	+1 (984) 365-0270
Email	info@bostonmolecules.com
Emergency Contact	+1 (984) 365-0270
Recommended Use	For research use only
Restrictions	Not for human or veterinary diagnostic or therapeutic use

Section 2: Hazard Identification

GHS Classification	Not classified as hazardous under GHS criteria
Signal Word	Not applicable
Hazard Statements	Not classified
Precautionary Statements:	
- P264: Wash hands thoroughly after handling	
- P280: Wear protective gloves/protective clothing/eye protection	
- P501: Dispose of contents/container in accordance with local regulations	

Section 3: Composition / Information on Ingredients

Chemical Name	alpha-Defensin-1, human
CAS Number	Not assigned
Molecular Formula	C167H256N48O50S6
Molecular Weight	3928.4909 Da
Purity	>= 95% by HPLC
Form	Lyophilized powder

Section 4: First-Aid Measures

Inhalation: Move person to fresh air. If breathing difficulty persists, seek medical attention.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with soap and water.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention if symptoms develop.

Most Important Symptoms: No significant hazard expected under normal laboratory use conditions.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media	Water spray, dry chemical, CO2, foam
Unsuitable Media	None known
Special Hazards	May emit toxic fumes (COx, NOx, SOx) upon decomposition
Protective Equipment	Self-contained breathing apparatus, full protective clothing

Section 6: Accidental Release Measures

Personal Precautions: Wear appropriate PPE. Avoid dust generation.

Environmental Precautions: Prevent entry into drains, sewers, or waterways.

Containment/Cleanup: Carefully sweep up and collect in suitable container for disposal. Avoid raising dust. Ventilate area after clean-up.

Section 7: Handling and Storage

Handling: Handle under inert gas in a fume hood. Avoid contact with skin, eyes, and clothing. Avoid inhalation of dust. Use appropriate PPE. Wash hands after handling.

Storage: Store at -20 deg C. Keep container tightly closed in a dry and well-ventilated place. Protect from light and moisture. Lyophilized form is stable

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for 24 months.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits	No occupational exposure limits established
Engineering Controls	Use in a well-ventilated area or fume hood
Eye Protection	Safety glasses with side shields or chemical splash goggles
Skin Protection	Nitrile or latex gloves, lab coat
Respiratory Protection	Dust mask (N95) if dust is generated

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off-white lyophilized powder
Odor	Odorless
pH	Not applicable (solid)
Melting Point	Decomposes before melting
Boiling Point	Not applicable
Solubility	Soluble in water and aqueous buffers
Molecular Weight	3928.4909 Da

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions
Conditions to Avoid	Heat, moisture, repeated freeze-thaw cycles
Incompatible Materials	Strong oxidizing agents, strong acids/bases
Hazardous Decomposition	COx, NOx, SOx upon thermal decomposition

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available. Treat as potentially hazardous.
Skin Irritation: May cause mild irritation upon prolonged contact.
Eye Irritation: May cause irritation.
Sensitization: No data available.
Carcinogenicity: Not listed by IARC, NTP, or OSHA.
Reproductive Toxicity: No data available.
STOT: No data available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No data available. Biodegradable peptide. Expected low environmental persistence.
Do not discharge into drains or waterways.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state, and federal regulations. Peptide waste should be collected and disposed of through a licensed waste disposal contractor.

SECTION 14: TRANSPORT INFORMATION

DOT / IATA / IMDG	Not regulated as dangerous goods
UN Number	Not applicable
Shipping Name	Research chemical, non-hazardous

SECTION 15: REGULATORY INFORMATION

This product is intended for research use only and is not subject to FDA regulation. TSCA: Not listed (research quantities exempt). SARA 313: Not listed. CERCLA: Not listed.

SECTION 16: OTHER INFORMATION

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Version 1.0

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