

# Safety Data Sheet

Product: beta-Defensin-4, human | BPT0458

## Section 1: Identification

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| Product Name      | beta-Defensin-4, human                                    |
| Catalog Number    | BPT0458                                                   |
| 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     | beta-Defensin-4, human |
| CAS Number        | Not assigned           |
| Molecular Formula | C180H295N63O52S6       |
| Molecular Weight  | 4366.0374 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 | 4366.0374 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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