

Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Catalog Code Number: 4424-s
Product Name: Muscarinic Toxin α
Supplier's Name: Peptide Institute, Inc.
Address: 7-2-9 Saito-Asagi, Ibaraki-Shi, Osaka 567-0085, Japan
Phone Number: 81-72-643-4411
Fax Number: 81-72-643-4422
Recommended uses: Reagent
Restrictions on use: Seek expert judgment as necessary.
Creation Date: April 9, 2015
Revised: February 17, 2025 (ver. 3)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS classification Not a hazardous substance
Other hazards: No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture: Single Substance
Common Chemical Name, Common Name or Substance Name:
Muscarinic Toxin α
Synonym: MT α
(Black mamba, *Dendroaspis polylepis*)
Structure: Leu-Thr-Cys-Val-Thr-Ser-Lys-Ser-Ile-Phe-
Gly-Ile-Thr-Thr-Glu-Asn-Cys-Pro-Asp-Gly-
Gln-Asn-Leu-Cys-Phe-Lys-Lys-Trp-Tyr-Tyr-
Leu-Asn-His-Arg-Tyr-Ser-Asp-Ile-Thr-Trp-
Gly-Cys-Ala-Ala-Thr-Cys-Pro-Lys-Pro-Thr-
Asn-Val-Arg-Glu-Thr-Ile-His-Cys-Cys-Glu-
Thr-Asp-Lys-Cys-Asn-Glu
(Disulfide bonds between Cys³-Cys²⁴, Cys¹⁷-Cys⁴², Cys⁴⁶-Cys⁵⁸, and Cys⁵⁹-Cys⁶⁴)
Molecular Formula: C₃₂₆H₄₉₁N₈₉O₁₀₂S₈ (M.W. 7545.4)
Product Description: Ligand for Muscarinic Acetylcholine Receptor-3/4/5 (M3/M4/M5) (Non-specific Ligand)
CAS Registry Number: 175779-97-2
EINECS No.: -
UN No. & Hazard Class: -

4. FIRST AID MEASURES

Inhalation: If inhaled, remove person to fresh air and keep comfortable for breathing. Wash your mouth and nasal cavity thoroughly with clean water and get medical attention.
Skin contact: In case of skin contact, wash with plenty of water. Call a doctor, if you feel unwell.
Eye contact: In case of contact with eyes, wash with plenty of water. Call a doctor, if you feel unwell.
Ingestion: If swallowed, rinse mouth. Call a doctor, if you feel unwell.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing media: Water spray, carbon dioxide, dry chemical powder, or appropriate form.

Unsuitable Extinguishing media: Nothing special.

Special extinguishing method: Complies with fire extinguishing method in normal fire.

Specific hazards arising from the chemical product:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

Environmental precautions:

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up:

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.

7. HANDLING AND STORAGE

Handling:

Technical measures: No data available

Precautions for safe handling: Avoid inhalation. Avoid contact with eyes, skin and clothing.

Storage:

Condition for safe storage: Keep container tightly closed. Store in a cool dry place.

Recommended storage temperature: -20 °C.

Container and packaging materials for safe handling: No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: No data available

Exposure limits: No data available

Concentration standard values under Japanese Safety and Health Act: No data available

Personal protective equipment:

Wear appropriate respirator, chemical-resistant gloves, safety goggles, other protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid (amorphous powder)

Color: White

Odor: No data available

Melting point/freezing point: No data available

Boiling point or initial boiling point and boiling range: No data available

Flammability: No data available

Lower and upper explosion limit/flammability limit: No data available

Flash point: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

pH: No data available

Kinematic viscosity: No data available

Solubility: Soluble in H₂O

***n*-Octanol/water partition coefficient:** No data available

Vapor pressure: No data available

Density and/or relative density: No data available

Relative vapor density: No data available

Particle characteristics: No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: No data available
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: No data available
Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data available
Skin irritation/corrosion: No data available
Serious eye damage/ irritation: No data available
Respiratory or skin sensitization: No data available
Reproductive cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
STOT-single exposure: No data available
STOT-repeated exposure: No data available
Aspiration hazard: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Hazards to ozone layer: No data available

13. DISPOSAL CONSIDERATIONS

Information on the safe and environmentally sound disposal or recycling of chemicals and contaminated containers and packaging:

Obey local/national regulations.

14. TRANSPORT INFORMATION

UN number and UN classification: This material is not classified as hazardous goods.
Regulatory information if there are Japanese regulations: Not applicable.

15. REGULATORY INFORMATION

Names of applicable Japanese laws and information on regulation based on those laws: Not applicable.
Caution: The chemical, physical and toxicological properties of this product have not been thoroughly investigated.
Exercise due care.

16. OTHER INFORMATION

Disclaimer: NOT FOR USE IN HUMANS. For R&D use only. Not for drug, household or other uses.

Reference:

1. JCIA: Japan Chemical Industry Association GHS support Guidelines (September, 2023)
2. JIS Z 7253:2019 Hazard communication of chemicals based on GHS-Labeling and Safety Data Sheet (SDS)
3. NITE: National Institute of Technology and Evaluation (JAPAN) web site

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