

Peptide Institute, Inc.

7-2-9 Saito-Asagi, Ibaraki-Shi, Osaka 567-0085, Japan

Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Catalog Code Number: 4294-s
Product Name: ω-Agatoxin TK
Supplier's Name: Peptide Institute, Inc.
Address: 7-2-9 Saito-Asagi, Ibaraki-Shi, Osaka 567-0085, Japan
Phone Number: 81-72-643-4411
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Creation Date: April 10, 2001
Revised: February 5, 2015

2. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: ω-Agatoxin TK

Synonym: ω-Aga-TK

ω-Aga-IVB

(Funnel Web Spider, *Agelenopsis aperta*)

Structure: Glu-Asp-Asn-Cys-Ile-Ala-Glu-Asp-Tyr-Gly-Lys-Cys-Thr-Trp-Gly-Gly-Thr-Lys-Cys-Cys-Arg-Gly-Arg-Pro-Cys-Arg-Cys-Ser-Met-Ile-Gly-Thr-Asn-Cys-Glu-Cys-Thr-Pro-Arg-Leu-Ile-Met-Glu-Gly-Leu-D-Ser-Phe-Ala

(Reported disulfide bonds between Cys⁴-Cys²⁰, Cys¹²-Cys²⁵, Cys¹⁹-Cys³⁶, and Cys²⁷-Cys³⁴)

Molecular Formula: C₂₁₅H₃₃₇N₆₅O₇₀S₁₀ (M.W. 5273.0)

Product Description: P-type Ca²⁺ Channel Blocker

Reference: 1) M. Kuwada, T. Teramoto, K.Y. Kumagaye, K. Nakajima, T. Watanabe, T. Kawai, Y. Kawakami, T. Niidome, K. Sawada, Y. Nishizawa, and K. Katayama, *Mol. Pharmacol.*, **46**, 587 (1994).
2) Y. Shikata, T. Watanabe, T. Teramoto, A. Inoue, Y. Kawakami, Y. Nishizawa, K. Katayama, and M. Kuwada, *J. Biol. Chem.*, **270**, 16719 (1995).
3) M.E. Adams, I.M. Mintz, M.D. Reily, V. Thanabal, and B.P. Bean, *Mol. Pharmacol.*, **38**, 681 (1990).
4) S.D. Heck, P.R. Kelbaugh, M.E. Kelly, P.F. Thadeio, N.A. Saccomano, J.G. Stroh, and R.A. Volkmann, *J. Am. Chem. Soc.*, **116**, 10426 (1994).
5) T. Teramoto, T. Niidome, M. Kimura, M. Ohgoh, Y. Nishizawa, K. Katayama, T. Mayumi, and K. Sawada, *Brain Res.*, **756**, 225 (1997).
6) S.P. Lieske and J.-M. Ramirez, *J. Neurophysiol.*, **95**, 1323 (2006).
7) B.M. Olivera, G.P. Miljanich, J. Ramachandran, and M.E. Adams, *Annu. Rev. Biochem.*, **63**, 823 (1994).
8) O.D. Uchitel, *Toxicon*, **35**, 1161 (1997).

CAS Registry Number: 145017-83-0

EINECS No.: -

UN No. & Hazard Class: -

3. HAZARDS IDENTIFICATION

Label precautionary statements: NOT FOR USE IN HUMANS

Adverse human health effects: May be fatal if enters bloodstream.

Do not breathe dust.

Do not use if skin is cut or scratched. Wash thoroughly after handling.

The chemical, physical and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

4. FIRST-AID MEASURES

Inhalation: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Skin contact: In case of skin contact, flush with copious amounts of water.

Eye contact: In case of contact with eyes, flush with copious amounts of water.

Ingestion: If swallowed, wash out mouth with water.

5. FIRE-FIGHTING MEASURES

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

Special fire-fighting procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

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

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

Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Refer to section 8.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Mechanical exhaust required.

Wash thoroughly after handling.

Avoid inhalation.

Avoid contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure.

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

Keep container tightly closed.

Store in a cool dry place.

Recommended Storage Temperature: -20°C

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White amorphous powder

Reactivity in Water: No reactivity

Solubility: Soluble in H₂O

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibilities: Strong acids, Strong bases

Hazardous combustion or decomposition products: CO, CO₂, NO_x, SO_x

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: The toxicological properties have not been thoroughly investigated.

May cause skin irritation.

May be harmful if absorbed through the skin.

May cause eye irritation.

May be harmful if inhaled.

May cause respiratory tract irritation.

May be harmful if swallowed.

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12. ECOLOGICAL INFORMATION

Data not yet available.

13. DISPOSAL CONSIDERATIONS

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

This material is not classified as hazardous goods.

15. REGULATORY INFORMATION

Not applicable.

Caution: The chemical, physical and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

16. OTHER INFORMATION

Disclaimer: For R&D use only. Not for drug, household or other uses.

The above information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Peptide Institute, Inc. It relates only to the specific product designated herein, and does not relate to use in combination with any other material or in any process. Peptide Institute, Inc. assumes no legal responsibility for use of or reliance upon this information.