

# 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:** 4432-s

**Product Name:** Plectasin

**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

**Creation Date:** May 16, 2013

**Revised:** April 9, 2015

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Common Name:** Plectasin

(Fungus, *Pseudoplectania nigrella*)

**Structure:** Gly-Phe-Gly-Cys-Asn-Gly-Pro-Trp-Asp-Glu-

Asp-Asp-Met-Gln-Cys-His-Asn-His-Cys-Lys-

Ser-Ile-Lys-Gly-Tyr-Lys-Gly-Gly-Tyr-Cys-

Ala-Lys-Gly-Gly-Phe-Val-Cys-Lys-Cys-Tyr

(Disulfide bonds between Cys<sup>4</sup>-Cys<sup>30</sup>, Cys<sup>15</sup>-Cys<sup>37</sup>, and Cys<sup>19</sup>-Cys<sup>39</sup>)

**Molecular Formula:** C<sub>189</sub>H<sub>267</sub>N<sub>53</sub>O<sub>56</sub>S<sub>7</sub> (M.W. 4401.9)

**Product Description:** Antimicrobial Peptide

**Reference:**

- 1) P.H. Mygind, R.L. Fischer, K.M. Schnorr, M.T. Hansen, C.P. Sønksen, S. Ludvigsen, D. Raventós, S. Buskov, B. Christensen, L. De Maria, O. Tabouret, D. Yaver, S.G. Elvig-Jørgensen, M.V. Sørensen, B.E. Christensen, S. Kjaerul, *Nature*, **437**, 975 (2005).
- 2) S. Hara, H. Mukae, N. Sakamoto, H. Ishimoto, M. Amenomori, H. Fujita, Y. Ishimatsu, K. Yanagihara, S. Kohno, *Biochem. Biophys. Res. Commun.*, **374**, 709 (2008).
- 3) K. Mandal, B.L. Pentelute, V. Tereshko, V. Thammavongsa, O. Schneewind, A.A. Kossiakoff, and S.B.H. Kent, *Protein Sci.*, **18**, 1146 (2009).
- 4) T. Schneider, T. Kruse, R. Wimmer, I. Wiedemann, V. Sass, U. Pag, A. Jansen, A.K. Nielsen, P.H. Mygind, D.S. Raventos, S. Neve, B. Ravn, A.M. Bonvin, L. De Maria, A.S. Andersen, L.K. Gammelgaard, H.G. Sahl, and H.H. Kristensen, *Science*, **328**, 1168 (2010).

**CAS Registry Number:** -

**EINECS No.:** -

**UN No. & Hazard Class:** -

### 3. HAZARDS IDENTIFICATION

**Label precautionary statements:** NOT FOR USE IN HUMANS

**Adverse human health effects:** 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.

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**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 H<sub>2</sub>O

## 10. STABILITY AND REACTIVITY

**Stability:** Stable

**Incompatibilities:** Strong acids, Strong bases

**Hazardous combustion or decomposition products:** CO, CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>

**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.

## 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.

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## 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.

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