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: 4020 Product Name: Tuftsin 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: December 6, 2012 Revised: August 2, 2023 (ver. 4)

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: Tuftsin Structure: Thr-Lys-Pro-Arg Molecular Formula: C₂₁H₄₀N₈O₆ (M.W. 500.59) Product Description: Phagocytosis-Stimulating Peptide CAS Registry Number: 9063-57-4 72103-53-8 (Acetate form)

EINECS No.: -

UN No. & Hazard Class: This material is not classified as hazardous goods.

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.

Peptide Institute, Inc.

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

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 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

SDS No. 4020 Tuftsin

Peptide Institute, Inc.

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

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 (June, 2019)

2. JIS Z 7253:2019 Hazard communication of chemicals based on GHS-Labelling and Safety Data Sheet (SDS)

3. NITE: National Institute of Technology and Evaluation (JAPAN) web site

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.