

Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Catalog Code Number: 4041/4041-v
Product Name: Leupeptin
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: September 13, 1994
Revised: October 9, 2018 (ver.8)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS classification

HEALTH HAZARDS

ACUTE TOXICITY: ORAL Category 4

Pictograms



Signal word Warning

Hazard statements

Harmful if swallowed

Precautionary statements

Prevention

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Response

IF SWALLOWED: Call a doctor if you feel unwell.

Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant.

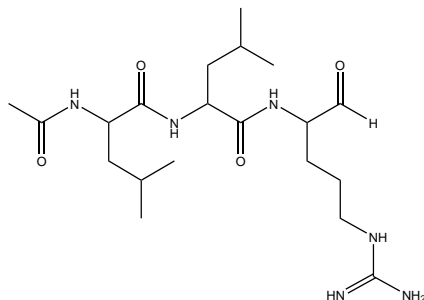
Other hazards: This product is a kind of protease inhibitor produced by actinomycetes, and it is known that it shows strong inhibitory action against trypsin, plasmin, papain, cathepsin B and the like. The details of the other actions are unknown and should be handled with caution in using them.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture: Single Substance

Common Name: Leupeptin

Structure: Acetyl-L-leucyl-L-leucyl-L-argininal



Molecular Formula: C₂₀H₃₈N₆O₄ (M.W. 426.55)

Product Description: Inhibitor for Trypsin, Plasmin, Papain, and Cathepsin B

CAS Registry Number: 55123-66-5

103476-89-7

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

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

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: Avoid inhalation. Avoid contact with eyes, skin and clothing.

Storage: Keep container tightly closed. Store in a cool dry place. Recommended Storage -20 °C.

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

Appearance and Odor: White amorphous powder

Reactivity in Water: No reactivity

Solubility: Soluble in H₂O

10. STABILITY AND REACTIVITY

Stability: No data available

Reactivity: No data available

11. TOXICOLOGICAL INFORMATION

Toxicity: LD₅₀ (male mouse *p.o.*): 740 mg/kg, (female mouse *p.o.*): 1,000mg/kg GHSclassification Category 4
 (male mouse *s.c.*): 608 mg/kg, (female mouse *s.c.*): 540mg/kg
 (male mouse *i.v.*): 78 mg/kg, (female mouse *i.v.*): 74mg/kg
 (male rat *p.o.*): 720 mg/kg, (female rat *p.o.*): 740mg/kg GHSclassification Category 4
 (male rat *s.c.*): 1,100 mg/kg, (female rat *s.c.*): 1,250mg/kg
 (male rat *i.v.*): 80 mg/kg, (female rat *i.v.*): 87mg/kg

(**Abbreviations:** LD₅₀: 50% Lethal dose, *p.o.*: per os, *s.c.*: subcutaneous, *i.v.*: intravenous)

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

13. DISPOSAL CONSIDERATIONS

Observe all federal, state and local environmental regulations.

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

14. TRANSPORT INFORMATION

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

Reference:

Peptide Institute, Inc.

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

1. JCIA: Japan Chemical Industry Association GHS support Guidelines (June, 2012)
2. JIS Z7253:2012 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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