Section 1 - Product and Company Information

Product Name: Pepstatin A, From Micobial Source
Product Number: PS318
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAIN'T LOUIS, MO 63103 US
Technical Phone: 314 771 5795
Fax: 800 325 5352
Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
<th>EC no</th>
<th>Annex 1 Index</th>
</tr>
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<tr>
<td>PEPSTATIN A</td>
<td>26305-03-3</td>
<td>No</td>
<td>247-600-0</td>
<td>Number</td>
</tr>
</tbody>
</table>

- Formula: C34H63N5O9
- Chemical Family: Bioactive peptide
- Synonyms: Pepstatin

Section 3 - Hazards Identification

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

- HMIS Rating
  - Health: 3
  - Flammability: 0
  - Reactivity: 0
- NFPA Rating
  - Health: 3
  - Flammability: 0
  - Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

- Oral Exposure
  - If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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

- Dermal Exposure
  - In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Section 5 - Fire Fighting Measures

- Autoignition Temp: N/A
- Extinguishing Media
  - Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.
  - Protective Equipment
    - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
    - Specific Hazard(s)
      - Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

- Procedure to be Followed in Case of Leak or Spill
  - Evacuate area.

- Procedure(s) of Personal Precaution(s)
  - Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

- Methods for Cleaning Up
  - 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.

Section 7 - Handling and Storage

- Handling
  - User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

- Storage
  - Suitable: Keep tightly closed. Store at 2-8°C

Section 8 - Exposure Controls / PPE

- Engineering Controls
  - Mechanical exhaust required.

- Personal Protective Equipment
  - Other
    - Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

- General Hygiene Measures
  - Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

- Appearance
  - Physical State: Solid

Sigma Chemical - PS318
Page 2 Sigma-Aldrich Corporation
www.sigma-aldrich.com
Molecular Weight: 885.91 AMU

pH: N/A
BP/BP Range: N/A
MP/MP Range: 253 °C
Freezing Point: N/A
Vapor Pressure: N/A
Vapor Density: N/A
Saturated Vapor Conc.: N/A
SG/Density: N/A
Bulk Density: N/A
Odor Threshold: N/A
Volatile%: N/A
VOC Content: N/A
Water Content: N/A
Solvent Content: N/A
Evaporation Rate: N/A
Viscosity: N/A
Partition Coefficient: N/A
Decomposition Temp.: N/A
Flash Point 'F': N/A
Flash Point 'C': N/A
Explosion Limits: N/A
Flammability: N/A
Autoignition Temp: N/A
Solubility: N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability: Stable
Materials to Avoid: Strong acids, strong bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation:

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn it in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT: Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA: Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification: Skin: 26 24/25
Safety Statements: Do not breathe dust. Avoid contact with skin and eyes.

US Classification and Label Text: Caution: The chemical, physical, and toxicological properties of this product have been thoroughly investigated. Exercise due care.

United States Regulatory Information: SARA Listed: No

Canada Regulatory Information: WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPIR, and the MSDS contains all the information required by the CPIR.
Section 16 - Other Information

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

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2000 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.