SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name: Pepstatin A
- Article number: 52682
- CAS Number: 26305-03-3
- EC number: 247-600-0

1.2 Relevant identified uses of the substance or mixture and uses advised against
- No further relevant information available.

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: SERVA Electrophoresis GmbH
  Carl-Benz-Str. 7
  D-69115 Heidelberg
  Tel.: +49 6221 13840-0
  FAX: +49 6221 13840-10
  msds.info@serva.de
- Information department: Product Safety department
  Tel.: +49 6221 13840-35

1.4 Emergency telephone number:
- Medical Emergency Information in case of poisoning:
  Poison Information Center Mainz - Phone: +49 (0) 6131 19240
  (advisory service in German or English language)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The substance is not classified according to the CLP regulation.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void

2.3 Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
- CAS No. Description:
  26305-03-3 pepstatin
- Identification number(s):
- EC number: 247-600-0
- Description:
- Empirical formula: $C_{34}H_{63}N_5O_9$
- MW: 685.89

(Contd. on page 2)
SECTION 4: First aid measures

4.1 Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Rinse out mouth and then drink plenty of water. If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents: CO\textsubscript{2} , extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
- In case of fire, the following can be formed, but not limited to:
  - Nitrogen oxides (NO\textsubscript{x})
  - Carbon monoxide and carbon dioxide

5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Wear protective clothing.

6.2 Environmental precautions:
- Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up
- Pick up mechanically.

6.4 Reference to other sections
No dangerous substances are released.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Prevent formation of dust.

7.2 Conditions for safe storage, including any incompatibilities
- Storage

7.3 Specific end use(s)
No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

Breathing equipment: Suitable respiratory protective device recommended.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

- Natural rubber, NR
- Nitrile rubber, NBR

Eye protection: Safety glasses

Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

- Appearance:
  - Form: Powder
  - Colour: White
  - Odour: Characteristic

Change in condition

- Melting point/freezing point: (Dec) 228 - 234 °C
- Initial boiling point and boiling range: undetermined

- Flash point: Not applicable

- Flammability (solid, gaseous) Product is not flammable.

- Explosive properties: Product does not present an explosion hazard.

- Density: Not determined

- Solubility in / Miscibility with
  - Water: Insoluble
  - Alcohols: Readily soluble

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.
Trade name: Pepstatin A

10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

Oral LD50 > 2000 mg/kg (rat)

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Generally not hazardous for water.

12.5 Results of PBT and vPvB assessment

PBT: PBT - assessment not available.

vPvB: vPvB - assessment not available.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Void
Trade name: Pepstatin A

- **14.3 Transport hazard class(es)**
  - ADR, ADN, IMDG, IATA
  - Class Void

- **14.4 Packing group**
  - ADR, IMDG, IATA
  - Void

- **14.5 Environmental hazards:**
  - Marine pollutant: No

- **14.6 Special precautions for user**
  - Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - Not dangerous according to the above specifications.

- **UN “Model Regulation”:** Void

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - National regulations
  - Water hazard class: Generally not hazardous for water.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - PBT: persistent, bioaccumulative, toxic substance (REACH)
  - vPvB: very persistent, very bioaccumulative substance (REACH)
  - REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
  - CLP: Regulation on classification, labelling and packaging of substances and mixtures
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative

- * Data compared to the previous version altered.