SAFETY DATA SHEET:

L-ASPARTIC ACID

The information is provided as a service to our customers and is intended only for their use. This information is based on technical information believed to be reliable and will be revised as new knowledge or experience is gained.

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1. Chemical Product and Company Identification

1.1. Identification of the substance: L-Aspartic Acid

1.2. Use of the substance: Various use (drugs, nutritional, industrial)

1.3. Company identification:

Manufacturer's Name: Ajinomoto Co., Inc.

1.4. Contact for Correspondence Japan: Ajinomoto Co., Ltd.
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Contact for Correspondence USA: Ajinomoto North America, Inc.
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Contact for Correspondence Brazil:
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Rua Vergueiro, 1737, Vila Mariana, 04101-001 – São Paulo – SP, Brazil
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Contact for Correspondence Europe: S.A. Ajinomoto Omnichem N.V.
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Contact for Correspondence China:
Ajinomoto(China) Co., Ltd.
718 Rongle Dong Road, Songjiang, Shanghai 201613 P.R. China
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Fax N°: +86 21 5774-0433

Contact for Correspondence Asia:
Ajinomoto Co., (Hong Kong) Ltd.
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Fax N°: +852 2534-2899

1.5. Emergency Telephone:

For Japan, Brazil, Europe, China and Asia
CHEMTREC at 1-800-424-9300.

2. Hazards Identification

GHS Classification of the substance

- Physical hazards: Not applicable
- Health hazards: Not applicable
- Environmental hazards: Not applicable

Label elements: Not applicable

Potential effects:
Since L-Aspartic Acid is an acid substance, it may cause eye and skin irritation.
It will increase the biological oxygen demand (BOD) of water.

3. Composition, Information on Ingredients

Substance or Mixture: Substance
Common Chemical name: L-Aspartic acid
Synonyms: (S)-2-Aminosuccinic acid
Formula: C_4H_7NO_4
Molecular Weight: 33.10
Composition: 98.5 - 101.0%
CAS No.: 56-84-8
EINECS No.: 200-291-6
IUPAC: L-Asp

4. First-Aid Measures

Inhalation: Immediately relocate to a fresh air environment. Rinse mouth with water. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen and seek medical attention.

Skin Contact: Wash with soap and copious amounts of water. If irritation persists, seek medical attention.

Eye Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. If contact lenses are being worn, remove lenses and continue rinsing. Seek medical attention.

Ingestion: Rinse mouth with water and seek medical attention.
5. **Fire-fighting measures**

- **Flash point (method used):** Not known
- **Flammable limits:** Not known
- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder/foam
- **Special fire fighting procedures:** Minimize dust formation
- **Unusual fire and explosion hazards:** Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Upon combustion will result in carbon monoxide, carbon dioxide and nitrogen oxide being released.

6. **Accidental release measures**

- **Personal precautions, protective equipment:** Use personal protection, see section 8.
- **Precautions for the environment:** Do not discharge into sewer, river, underground water, etc.
- **Recovery, neutralization:** Make spills wet to prevent the generation of dust and then, sweep up into a closed container.
- **Method for containment and clean-up:** After recovering, wash away spilled area with plenty of water.

7. **Handling and storage**

- **Handling:** Follow good industrial practice in housekeeping and personal hygiene.
- **Storage:** Wear personal protective equipment as outlined in section 8. Store in closed containers in a dry area. Avoid humidity, sunlight and high temperature.

8. **Exposure controls/personal protection**

- **Respiratory protection:** Dust mask or appropriate respirator. Utilize local exhaust ventilation.
- **Protective gloves:** Rubber
- **Eye protection:** Chemical safety goggles
- **Other protective equipment:** Wear appropriate laboratory apparel, protect exposed skin.
- **Occupational exposure limits:** Not established

9. **Physical and chemical properties**

- **Appearance:** White crystals or crystalline powder
- **Melting point:** 270-271°C
- **Solubility:** 0.42 g/100g H₂O (20°C)
- **pH:** 2.5-3.5 (0.5g in 100mL of H₂O (saturated aqueous solution))

10. **Stability and reactivity**

- **Stability:** Stable under normal temperature and pressures
- **Conditions to avoid:** Humidity and high temperature
- **Incompatibility (Materials to avoid):** Strong-oxidizing agents
- **Hazardous decomposition products:** Nitrogen oxides (combustion)
- **Hazardous Polymerization:** Will not occur

11. **Toxicological information**

- **Acute oral toxicity:** LD₅₀ > 16 g/kg rat
- **Sensitization:** No data available
- **Mutagenicity:** No data available
- **Primary skin irritation:** May cause skin irritation. No specific data available
- **Primary eye irritation:** May cause eye irritation. No specific data available

12. **Ecological information**

- **Toxic effects to fish, algae, and daphnia:** No data available
- **Potential for bioaccumulation:** No data available
- **Biodegradability:** BOD₅ = 0.618g/g
- **WGK class (Europe):** 1 (group classification according to VwVwS / 17 May 1999, Germany)

13. **Disposal considerations**

Dispose of the material as you would with a non-hazardous material in accordance with all applicable national, state and local regulations.
14. Transport information
Avoid humidity and high temperature. Prevent damage of the container.
UN-Classification: Not classified
US Department of Transportation proper shipping name: L-Aspartic acid
US NMFC classification: Item 60,000 / class 70

15. Regulatory information
None especially.
The information given in this Safety Data Sheet does not replace the users own assessment of workplace risk as required by national, state and local health and safety legislation.

16. Other information
The information contained in this SDS is, to the best of our knowledge true and accurate. Any recommendations or suggestions made are without guarantee, since the conditions of use are beyond our control.