

Material Safety Data Sheet (MSDS)

Product Name: Aspartame

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

1101- City Centre 2,

Science City Road,

Sola Ahmedabad Gujarat,

India - 380060.

Contact No.: +91 97272 88479

Email: info@rawpharmabiz.com

Website: www.rawpharmabiz.com

1. Product Identification

- **Chemical Name:** Aspartame
- **Synonyms:** L-Aspartyl-L-phenylalanine methyl ester
- **CAS Number:** 22839-47-0
- **Molecular Formula:** $C_{14}H_{18}N_2O_5$
- **Molecular Weight:** 294.30 g/mol

2. Composition / Information on Ingredients

- **Aspartame:** 100% (Food grade)
- **Impurities:** None significant
- **Classification:** Artificial sweetener

3. Hazard Identification

- **Classification:** Non-hazardous under normal handling
 - **GHS Labeling:** No specific GHS hazard label required
 - **Potential Hazards:**
 - May cause mild irritation to eyes and respiratory tract on dust exposure
 - Harmful if ingested in extremely high doses (phenylketonurics should avoid)
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4. First Aid Measures

- **Inhalation:** Move to fresh air, seek medical attention if symptoms persist.
 - **Skin Contact:** Wash with soap and water.
 - **Eye Contact:** Rinse with plenty of water for at least 15 minutes, seek medical attention if irritation persists.
 - **Ingestion:** Rinse mouth with water, seek medical attention if large amounts ingested.
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5. Fire Fighting Measures

- **Suitable Extinguishing Media:** Water spray, dry chemical, CO₂, foam.
 - **Unsuitable Extinguishing Media:** None known
 - **Specific Hazards:** May emit toxic fumes of CO, CO₂ upon combustion.
 - **Protective Equipment:** Firefighters should use self-contained breathing apparatus and protective clothing.
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6. Accidental Release Measures

- **Personal Precautions:** Avoid dust formation, wear protective gloves, goggles, and mask.
 - **Environmental Precautions:** Prevent entry into drains and waterways.
 - **Methods for Cleaning:** Sweep up, avoid dust, place in suitable container for disposal.
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7. Handling and Storage

- **Handling:** Avoid dust formation; use with adequate ventilation.

- **Storage:** Keep container tightly closed in a cool, dry, and well-ventilated place.
 - **Incompatibility:** Strong oxidizing agents.
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8. Exposure Controls / Personal Protection

- **Exposure Limits:** Not established
 - **Engineering Controls:** Use local exhaust ventilation if dust is generated.
 - **Personal Protective Equipment (PPE):**
 - Respiratory Protection: Dust mask
 - Hand Protection: Protective gloves
 - Eye Protection: Safety goggles
 - Skin Protection: Lab coat or protective clothing
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9. Physical and Chemical Properties

- **Appearance:** White crystalline powder
 - **Odor:** Slightly sweet
 - **pH:** 5–6 (1% solution)
 - **Melting Point:** 246°C (decomposes)
 - **Solubility:** Soluble in water, slightly soluble in ethanol
 - **Density:** 1.3 g/cm³
 - **Flash Point:** Not applicable
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10. Stability and Reactivity

- **Stability:** Stable under normal conditions
- **Conditions to Avoid:** High humidity, heat, light
- **Incompatible Materials:** Strong oxidizers, strong acids
- **Hazardous Decomposition Products:** CO, CO₂, and toxic fumes upon burning

11. Toxicological Information

- **Acute Toxicity:** LD50 (oral, rat) > 2000 mg/kg (low toxicity)
- **Chronic Toxicity:** May affect individuals with phenylketonuria
- **Irritation:** Mild eye and respiratory irritation possible
- **Carcinogenicity / Mutagenicity:** No evidence

12. Ecological Information

- **Environmental Fate:** Biodegradable
- **Ecotoxicity:** Low toxicity to aquatic organisms
- **Bioaccumulation:** Not significant

13. Disposal Considerations

- Dispose of in accordance with local regulations.
- Avoid releasing large amounts into the environment.
- Recommended method: incineration or landfill approved for chemical waste.

14. Transport Information (Detailed)

- **UN Number:** Not classified as dangerous for transport
- **UN Proper Shipping Name:** Aspartame
- **Transport Hazard Class:** Not regulated
- **Packing Group:** Not applicable
- **Marine Pollutant:** No
- **Transport Mode Guidance:**
 - **Road (ADR/RID):** Not restricted, transport in tightly closed containers to avoid moisture and contamination.
 - **Air (IATA/ICAO):** Not restricted; package in clean, dry, leak-proof containers. Avoid dust clouds.

- **Sea (IMDG):** Not restricted; ensure packages are secured on pallets, away from oxidizers.
- **Special Precautions:** Protect from heat, moisture, and contamination. Avoid handling that may produce dust clouds. Ensure proper labeling with chemical name and supplier contact info.
- **Emergency Response Guide:** Follow standard chemical emergency procedures; if spillage occurs, sweep carefully to minimize dust, prevent contamination of water sources, and dispose according to regulations.

15. Regulatory Information

- **Regulations:** Complies with food-grade regulations and standards
- **Phenylketonurics Warning:** Contains phenylalanine
- **GHS Classification:** Not hazardous

16. Other Information

- **Disclaimer:** The information provided is based on current knowledge and is intended to describe the product for health, safety, and environmental requirements. It should not be considered a guarantee of any specific property of the product.
- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.