

Newseed Chemical Co., Limited

Aspartame Material Safety Data Sheet

Aspartame MSDS

SECTION 1- PRODUCT AND MANUFACTURER IDENTIFICATION

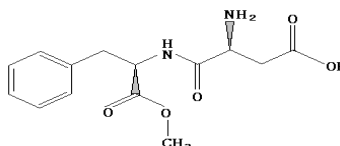
Product Name: Aspartame
Manufacturer: China Aspartame manufacturer
Manufacturer's Address:

Telephone:

Fax:

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Aspartame
Chemical Name: Alpha-L-aspartyl-L-phenylalanine methyl ester
Synonym: n/f
Molecular Formula: C₁₄H₁₈N₂O₅
Structural Formula: HO₂CCH₂CH(NH₂)CONHCH(CH₂C₆H₅)CO₂CH₃



CAS №: 22839-47-0
EINECS №: 245-261-3
E-№: E 951
Chemical Family: A Dipeptide ester
Therapeutic Category: Sweetener
Composition: Pure Material
Molecular Weight 294.31

SECTION 3-HAZARD INFORMATION

EMERGENCY OVERVIEW-Individuals with phenylketonuria should be aware that this material releases phenylalanine upon metabolism. No critical hazards to man or environment.

Adverse Effects: Impossible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: n/f

Acute: Possible eye, gastrointestinal and/or respiratory tract irritation.
Chronic: Impossible hypersensitization.
Medical Conditions Aggravated by Hypersensitivity to material and phenylketonuria.
Exposure:
Cross Sensitivity: n/f
Target Organs: n/f
For additional information on toxicity, see Section 11.

SECTION 4 - FIRST AID MEASURES

Inhalation: May cause irritation. Remove to fresh air.
Eye: May cause irritation. Flush with copious quantities of water.
Skin: May cause irritation. Flush with copious quantities of water.
Ingestion: May cause irritation and sweet taste. Flush out mouth with water.
General First Aid Procedures: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.
Note to Physicians
Overdose Treatment: Phenylketonurics who have ingested large amounts may need to have serum phenylalanine and glucose levels monitored.

SECTION 5 – FIREFIGHTING MEASURES

Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.
Fire and Explosion Hazards: This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.
Firefighting Procedures: As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.
Special exposure hazards, combustion products, gases: CO₂, CO, NO_x
Special equipment for firefighters: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Response: Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labelled container for disposal. Wash spill site.

Methods for cleaning up: Vacuum or sweep away and place in container for disposal.

SECTION 7 - HANDLING AND STORAGE

Handling: As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

Storage: Kept air tightly in a light-proof, dry and cool place. Keep away from sources of odors.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Engineering controls such as exhaust ventilation are recommended.

Respiratory Protection: Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. If a respirator is not required, an approved dust mask should be used.

Gloves: Chemically compatible

Eye Protection: Safety glasses or goggles

Protective Clothing: Protect exposed skin.

Exposure Limits: n/f

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Properties as indicated on the MSDS are general and not necessarily specific to the USP Reference Standard Lot provided.

Appearance and Odor: Off-white crystalline powder or granular; practically odorless.

Odor Threshold: n/f

pH: A 0.8% solution in water has a pH of 4.5 to 6.0

Melting Range: 246°C - 247°C (also reported as 190°C and 196°C)

Boiling Point: n/f

Flash Point: n/f

Autoignition Temperature: n/f

Evaporation Rate: n/f

Upper Flammability Limit: n/f

Lower Flammability Limit: n/f

Vapor Pressure: n/f

Vapor Density: n/f

Specific Gravity: n/f

Solubility in Water: Sparingly soluble

Fat Solubility: n/f

Other Solubility: Slightly soluble in alcohol; practically insoluble in dichloromethane and hexane.

Partition Coefficient: n-octanol/water: n/f

Percent Volatile: n/f

Reactivity in Water: n/f
Explosive Properties: n/f
Oxidizing Properties: n/f
Formula: C₁₄H₁₈N₂O₅
Molecular Weight: 294.31

SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Avoid exposure to light and moisture.
Incompatibilities: n/f
Decomposition Products: When heated to decomposition material emits toxic fumes of NO_x.
Emits toxic fumes under fire conditions.
Stable? Yes
Hazardous Polymerization? No

SECTION 11 - TOXICOLOGICAL PROPERTIES

Oral Rat: LD₅₀: >10 grams/kg ; practically not toxic
Oral Mouse: LD₅₀: >10 grams/kg ; practically not toxic
Route of entry into body: Inhalation / Ingestion
Long Term Effects: Oral doses of 75 mg/kg/day to human subjects for 6 months did not produce any clinical signs.
Acceptable Daily Intake (ADI) **JECFA:** Aspartame: 40 mg/kg body weight
Diketopiperazine: 7.5 mg/kg
FDA: Aspartame: 50 mg/kg
Other Toxicity Data: n/f
Irritancy Data: n/f
Corrosivity: n/f
Sensitization Data: n/f
Listed as a Carcinogen by: **NTP:** No **IARC:** No **OSHA:** No
Other Carcinogenicity Data: No
Mutagenicity Data: n/f
Reproductive and Developmental Effects: Studies have not shown that Aspartame or its metabolites cause fetal or maternal harm. Women who have phenylketonuria should consider Aspartame as another source of phenylalanine.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Information: Biodegradable, non-regulated material.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Dispose of waste in accordance with all applicable Federal, State and local laws.

SECTION 14 -TRANSPORT INFORMATION

Not classified as a hazardous substance.

Technical Shipping Name: Aspartame
Class: n/f
UN Number: n/f
Packing Group: n/f
Product Label: SinoSweet Aspartame
Additional Transport Information: n/f

SECTION 15 - REGULATORY INFORMATION

Not classified as dangerous substance.

In Application: National food regulations may set upper limits in applications.
In USA: cGMP use level.
Contains Phenylalanine (Amino acid).
To be considered by Homozygous Phenylketonurics.

U.S. Regulatory Information: n/f

International Regulatory Information: EINECS # 245-261-3
Safety phrases: S24/25

SECTION 16 - OTHER INFORMATION

Revision: 04-Jan-2017
Previous Revision Date: 06-Jan-2016