Aspartame

SAFETY DATA SHEET SINOSWEET® ASPARTAME

SECTION 1 : IDENTIFICATION

PRODUCT NAME
Aspartame

SYNONYMS
Asp-Phe Methyl Ester, Asp-Phe-OMe, N-(L-alpha-Aspartyl)-L-phenylalanine methyl ester

SUPPLIER
SinoSweet® Co. Ltd
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INTENDED USES
Sweetener, Food Additive

SECTION 2 : HAZARDS IDENTIFICATION

HMIS RATING
HEALTH: 0
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING
HEALTH: 0
FLAMMABILITY: 0
REACTIVITY: 0

CLASSIFICATION
• Classification according to Directive 67/548/EEC
• Not considered as dangerous substance.
• Classification according to Regulation (EC) No 1272/2008 (CLP)
• Not considered as hazardous substance.
• Labelling according to Regulation (EC) No 1272/2008 (CLP)
• None

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENT

Formula: C_{14}H_{18}N_{2}O_{5}
CAS: 22839-47-0
EINECS Number: 245-261-3
Molecular Weight: 294.31
E Number: E951
Flashpoint: Not Applicable
% by Weight: 100

Chemical Name: N-(L-alpha-Aspartyl)-L-phenylalanine methyl ester

SECTION 4 : SECTION 4: FIRST AID MEASURES

If used under ordinary circumstances no special treatment is necessary. Wash thoroughly after handling.

ORAL EXPOSURE
Not toxic if swallowed in small amounts based on toxicology studies.

INHALATION EXPOSURE
Move to fresh air, if breathing becomes difficult call a physician.
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SECTION 4 : FIRST AID MEASURES - CONTINUED

DERMAL EXPOSURE
No special treatment required. Flush with copious amount of water if needed.

EYE EXPOSURE
Flush eyes with copious amounts of water for at least 15 minutes. Call a physician.

SECTION 5 : FIRE FIGHTING MEASURES

FLASH POINT
N / A

AUTOIGNITION TEMPERATURE
N / A

FLAMMABILITY
Stable under normal conditions. Special consideration should be taken to ensure the potential for dust concentration in the flammable range is minimized.

EXTINGUISHING MEDIA
Suitable: Water spray, Carbon Dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

FOR PERSONAL PRECAUTION
Wear appropriate protective equipment

METHODS FOR CLEANING UP
Sweep up, place in bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill area after material pickup is complete.

SECTION 7 : HANDLING AND STORAGE

HANDLING
Avoid creating dusty conditions, inhalation, eye, skin and clothing contact. Worker exposure can be minimized if good industrial hygiene practices are utilized.

STORAGE
Keep container tightly closed. Store in a cool, dry area.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS
It is recommended that mechanical exhaust is utilized to minimize hazards contributed to dust explosions.

PERSONAL PROTECTIVE EQUIPMENT
Utilize appropriate PPE for handling of powders. Eye goggles, gloves and dust masks will create a more comfortable work environment.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

RECOMMENDED AIRBORNE EXPOSURE LIMITS FOR DUST
OSHA PEL
15mg/m2 (Total Dust) 8- hour TWA
5 mg/m3 (respirable) 8- hour TWA

ACGIH TLV:
10 mg/m3 (inhalable) 8 – TWA
3mg/m3 (respirable) 8-hour TWA
SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White crystalline powder or granule
Partition Coefficient: n-octanol/water: N/A
Odor: Practically odorless
Evaporation Rate: N/A
Purity (on dry basis): 98-102%
Vapor Pressure: N/A
Moisture: NMT 4.5%
Relative Density: 0.2-0.6 g/ml (Solid)
Residue on Ignition: NMT 0.2%

Solubility: 1%
Melting Point Range: 248-250 °C
Flammability: N/A
pH: 4.5-6.0 (10% Solution)
Auto-Ignition Temperature: N/A
Initial Boiling Point: N/A
Decomposition Temperature: 248-250 °C
Flash Point: N/A
Viscosity: N/A

Granular
- Minimal Explosion concentration for dust: 0.110 g/l
- Maximal Explosion Pressure: 9.8 Bars
- Kst: 206 bar-m/ sec

Powder
- Minimal Explosion concentration for dust: 0.055 g/l
- Maximal Explosion Pressure: 9.8 Bars
- Kst: 206 bar- m/sec

SECTION 10 : STABILITY AND REACTIVITY

STABILITY
Stable for 5 years when stored under proper conditions. Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon monoxide, carbon dioxide, and nitrogen oxides formed under fire conditions.

HAZARDOUS POLYMERIZATION
None

SECTION 11 : TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY
Dermal contact, eye contact, inhalation, and ingestion

TOXICITY TO ANIMALS
Acute Oral Toxicity (LD50): 10000 mg/kg (mouse)

CHRONIC EFFECTS ON HUMANS
Documented studies have shown the safety of aspartame to humans. Oral doses of 75 mg/kg/day to human subjects did not produce any clinical signs. The Acceptable Daily Intake (ADI) approved by the U.S. FDA is 50 mg/kg/day.

SECTION 12 : ECOLOGICAL INFORMATION

ECOTOXICITY
Not Available

BOD5 AND COD
Not Available

FURTHER INFO ON ECOLOGY
Biodegradable studies in published literature suggests aspartame would meet OECD guidelines for classifications as “readily biodegradable”
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SECTION 13 : DISPOSAL CONSIDERATIONS
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose in accordance with federal, state and local regulations.

SECTION 14 : TRANSPORTATION INFORMATION
Aspartame is considered to be non-hazardous for ground, sea and air transport.

SECTION 15 : TRANSPORTATION INFORMATION

United States Regulatory Information

SARA LISTED
Hazard Categories under Title III Rules (40 CFR 370): Not applicable
Section 302 Extremely Hazardous Substances: Not applicable
Section 313 Toxic Chemical(s): Not applicable

EUROPE
Please check the consequences of national regulations on produce according to direct 67/548/EC.
There are no substances present within the products supplied to you considered to be of Very High Concern (SVHC), or included on the “Candidate List” as defined by REACH.
Polythene liner utilized as the Contact/Primary Packaging material is classified suitable for Food Grade use.

REFERENCES
Not available

OTHER SPECIAL CONSIDERATIONS
None

CREATED
May 1, 2016

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