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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Aspartame
Catalog Code: RS1-0067
Synonym: N-L-alpha-Aspartyl-L-phenylalanine; 1-Methyl Ester Succinamic acid; (S)-3-amino-4-((S)-1-methoxy-1-oxo-3-phenylpropan-2-ylamino)-4-oxobutanoic acid
Chemical Formula: C_{14}H_{18}N_{2}O_{5}
CAS #: 22839-47-0

Contact Information:

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name: Aspartame
CAS#: 22839-47-0

% by Weight: 100%

Toxicological Data on Ingredients: Not Applicable.

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects:
Slightly hazardous in case of skin contact (irritant, permeator), eye contact (irritant), ingestion and inhalation.

Potential Chronic Health Effects:
Repeated or prolonged exposure is not known to aggravate medical condition.
CARCINOGENIC EFFECTS: Not Available.
MUTAGENIC EFFECTS: Not Available.
TERATOGENIC EFFECTS: Not Available.
DEVELOPMENTAL TOXICITY: Not Available.

SECTION 4: FIRST AID MEASURES

Eye Contact:
Check for and remove contact lenses. Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation occurs.

Skin Contact:
In case of contact, immediately wash skin with non-abrasive soap and plenty of water. Cover the irritated skin with an emollient. Seek medical attention if irritation develops.

Serious Skin Contact:
Not Available.

Inhalation:
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Seek medical attention.

Serious Inhalation:
Not Available

Ingestion:
Do not induce vomiting. Loosen tight clothing. If large quantities of this material are swallowed call physician immediately.

Serious Ingestion:
Not Available.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.
Auto-Ignition Temperature: Not Available.
Flammable Limits: Not Available.
Flash Points: Not Available

Products of Combustion: These products are carbon oxides (CO, CO₂) and nitrogen oxides (NO, NO₂).

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not Available.
Risks of explosion of the product in presence of static discharge: Not Available.

Special Remarks on Fire Hazards: When heated to decomposition it emits toxic fumes of nitro-oxides. Material in powder form is capable of creating a dust explosion. As with most organic solids fire is possible at elevated temperatures.

Special Remarks on Explosion Hazards: Fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use appropriate tools to put the material into a suitable waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

SECTION 7: HANDLING AND STORAGE

Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors/dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Storage:
Keep in original container tightly closed in a dry, cool and well-ventilated place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
If laboratory operations generate dust, fume or mist, use local exhaust ventilation or other appropriate engineering controls to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Safety glasses, lab coat, dust respirator and gloves. Be sure to use an approved/certified respirator or equivalent.

Personal Protection in Case of a Large Spill:
Splash goggles, full suit, dust respirator, boots and gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not Available.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid. (Powdered Solid).
Odor: Not Available.
Taste: Not Available
Molecular Weight: 294.30 g/mol
Color: White.
pH (1% soln/water): Not Available.
Boiling Point: Decomposes.
Melting Point: 248°C (478.4°F)
Critical Temperature: Not Available.
Specific Gravity: Not Available.
Vapor Pressure: Not Applicable.
Vapor Density: Not Available.
Volatile: Not Available.
Odor Threshold: Not Available.
Water/Oil Dist. Coeff.: Not Available.
Dispersion Properties: Not Available.
Solubility: Soluble in hot water; partially soluble in cold water.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.
Instability Temperature: Not Available.
Conditions of Instability: Excess heat, incompatible materials, dust generation.
Incompatibility with various substances: Reactive with oxidizing agents.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not Available.
Special Remarks on Corrosivity: Not Available.
Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation and ingestion.

Toxicity to Animals: Acute Oral (LD50): 10,000 mg/kg [Mouse].

Chronic effects on humans: Not Available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, permeator),
ingestion and inhalation.

Special Remarks on Toxicity to Animals: Not Available.

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause digestive/gastrointestinal tract irritation/disturbances. May cause headache, fever, dizziness, conjunctivitis, folliculitis, hives, allergic dermatitis, angioedema. Repeated or prolonged ingestion of larger amounts may affect endocrine system, liver, kidneys, brain and weight loss.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not Available.
BOD5 and COD: Not Available.
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation: Not Available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material in the United States
Identification: Not Applicable.
Special Provisions for Transport: Not Applicable.

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Aspartame.

Other Regulations: Not Available.

Other Classifications:

EINICS: This product is on the European Inventory of Existing Commercial Chemical Substances (No.245-261-3)
WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):
This product is not classified according to the EU regulations.

HMIS (U.S.A.):
Health Hazard: 1
Fire Hazard: 1
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 1
Flammability: 1
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves, lab coat, safety glasses and dust respirator. Be sure to use an approved/certified respirator or equivalent when ventilation is inadequate.

SECTION 16: OTHER INFORMATION

References: Not Available.
Other Special Considerations: Not Available.

DISCLAIMER:

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