

# Material Safety Data Sheet

# **D-Aspartic Acid MSDS**

## **1. SUBSTANCE IDENTIFICATION**

- 1.1. Product Name: D-Aspartic Acid
- 1.2. Description: D-Aspartic Acid is a proteinogenic amino acid manufactured through fermentation.
- 1.3. Chemical Formula: C4H7NO4
- 1.4. Molecular weight: 133.10
- 1.5. CAS #: 617-45-8
- 1.6. EINECS #: 200-291-6
- 1.7. Manufactured by: Foodchem International Corporation, Shanghai China.
- 1.8. Supplied by: Foodchem International Corporation, Shanghai China.
- 1.9. Usage: In food as nutritional supplements

## 2. Composition

- 2.1. D-Aspartic Acid: >99%
- 2.2. Hazardous impurities: Negative

## 3. Physical/Chemical Characteristics

- 3.1. Physical State: Powder
- 3.2. Appearance: White Crystals or crystalline powder
- 3.3. Odor: Odorless.
- 3.4. pH: 4
- 3.5. Melting point/range: >300 ° C (572 ° F)
- 3.6. Boiling point: Decomposes.
- 3.7. Bulk density: 1.66g/cm3
- 3.8. Solubility: Very slightly soluble in cold water

## 4. Stability/Reactivity

- 4.1. Chemical Stability: Stable under normal temperatures and pressures
- 4.2. Shelf Life: 24 months period
- 4.3. Hazardous decomposition: Carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...)
- 4.4. Hazardous polymerization: Will not occur
- 4.5. Incompatible with: oxidizing agents, strong acids, strong alkalis (bases), nitric acid.

#### 5. Handling/Storage

- 5.1. Storage: Kept in dry, cool, and shaded place with original packaging, avoid moisture, store at room temperature.
- 5.2. Handling precaution: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Empty containers pose a fire risk, evaporate the residue under a fume hood

## 6. Exposure Control

- 6.1. Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
- 6.2. Respiratory protection: NIOSH/MSHA or European Standard EN 149 approved respirator
- 6.3. Eye Protection: Protective eyeglasses or chemical safety goggles
- 6.4. Skin Protection: Wear appropriate protective gloves and clothes to minimize skin contact.
- 6.5. Other: Consult professionals if D-Aspartic Acid need to be handled under some special conditions.



## 7. Hazards Identification

- 7.1. Hazardous overview: D-Aspartic Acid is Very hazardous in case of eye contact (irritant). Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.
- 7.2. Contact with eyes: May cause eye irritation.
- 7.3. Contact with skin: May cause skin irritation.
- 7.4. Ingestion: May irritate the tissues of the mouth, esophagus, and other tissues of the digestive system
- 7.5. Inhalation: May cause irritation to the respiratory tract and gastrointestinal
- 7.6. Other: Not Applicable

#### 8. First Aid Measures

- 8.1. Contact with eyes: Flush immediately with plenty of water for 15 minutes and seek medical advice
- 8.2. Contact with skin: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
- 8.3. Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
- 8.4. Inhalation: Remove from exposure, move to fresh air and seek medical advice immediately.

#### 9. Fire and Explosion Data

- 9.1. General information: May be combustible at high temperature.
- 9.2. Flash point: Not available
- 9.3. Ignition control: Avoid ignition sources where D Aspartic Acid powder might be generated.
- 9.4. Dust control: Keep the handling area with adequate ventilation
- 9.5. Extinguishing Media: Water spray, dry chemical or carbon dioxide
- 9.6. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Absorb with DRY earth, sand or other noncombustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

## 10. Transport Information

• 10.1. No special requirements and no restrictions on transportation by land, sea or air.

#### 11. Ecological Information

• 11.1. D Aspartic Acid is fully degradation biodegradable. The products of degradation are more toxic.

#### 12. Other Information

 12.1. This Safety Data Sheet of D-Aspartic Acid is based upon a limited review of Foodchem Internation Corporation files and standard Toxicological handbooks. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Foodchem International Corporation be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Foodchem International Corporation has been advised of the possibility of such damages.

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