



## MATERIAL SAFETY DATA SHEET

REF: 91/155 EEC AND AMENDMENTS WITH RESPECTIVE NATIONAL IMPLEMENTATIONS

### ADM CORNSWEET™ CRYSTALLINE FRUCTOSE

#### 1.0 SUBSTANCE IDENTIFICATION

- 1.1 Commercial product name: Crystalline Fructose
- 1.2 Chemical characterisation: D-(-)-fructopyranose
- 1.3 Formula:  $C_6H_{12}O_6$
- 1.4 Molecular weight: 180.16
- 1.5 CAS No: 57-48-7
- 1.6 EINECS No: 200-333-3

#### 1.7 FOR USE IN FOOD

- 1.8 Manufactured By: Archer Daniels Midland Company, 1251 Beaver Channel Parkway, Clinton, Iowa 52732, U.S.A.
- 1.9 Supplied in Australia by: ADM Australia Pty Ltd, PO Box 281, Suite 1003, Level 10, 1 Newland Street, Bondi Junction, NSW 2022
- 1.10 Australian Emergency Telephone Number: 0417 285396 (24 hours)
- 1.11 U.S. Emergency Telephone Number: +1 217 424-5200 (24 hours)

#### 2.0 COMPOSITION

- 2.1 Essentially pure fructose.
- 2.2 No hazardous impurities.

#### 3.0 HAZARDS IDENTIFICATION

- 3.1 **Fructose is not classified as a Dangerous Substance within the definitions of EC Directive 67/584.**
- 3.2 Contact with eyes (e.g. dust particles) may cause irritation.

#### 4.0 FIRST AID MEASURES

- 4.1 After contact with eyes, flush immediately with plenty of water for 15 minutes and seek medical advice.
- 4.2 After contact with skin, wash the affected area with water, remove contaminated clothing and launder before re-use.

#### 5.0 FIRE FIGHTING MEASURES

- 5.1 Avoid ignition sources where a fine fructose dust might be generated.
- 5.2 Water, carbon dioxide, or powder extinguisher may be used.
- 5.3 Fire fighters should wear protective clothing and approved respirator.
- 5.4 Burning may produce carbon monoxide.

#### 6.0 ACCIDENTAL RELEASE MEASURES

- 6.1 Recover product by vacuum or broom and shovel. Flush area with water to remove final traces.
- 6.2 Spillages of fructose solutions should be contained and collected on absorbent material. Thoroughly wash affected area.

## CRYSTALLINE FRUCTOSE

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### 7.0 HANDLING AND STORAGE

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- 7.1 Store in a dry, well-ventilated area in tightly closed containers to prevent entry of moisture.
- 7.2 Industrial hygiene - avoid breathing dust; use in an area with adequate ventilation. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling.

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### 8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

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- 8.1 Respiratory protection: Dust mask
- 8.2 Hand protection: Not required
- 8.3 Eye protection: Not required
- 8.4 Other: None

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### 9.0 PHYSICAL AND CHEMICAL PROPERTIES

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- 9.1 Appearance: Colourless crystalline
- 9.2 Odour: None
- 9.3 pH: Neutral
- 9.4 Melting point: 103°C
- 9.5 Boiling point: N/A - solid
- 9.6 Specific gravity: Approx. 1.5
- 9.7 Solubility in water (20°C): 80g per 100g solution
- 9.8 Solubility in alcohol (20°C): Soluble

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### 10.0 STABILITY AND REACTIVITY

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- 10.1 Shelf life: Fructose is chemically stable for many years if stored under cool, dry conditions; nevertheless, re-test prior to use is recommended after three years. The product is hygroscopic and must be stored in tightly closed containers to prevent the entry of moisture.
- 10.2 Hazardous decomposition products: None known
- 10.3 Incompatible with: Avoid contact with strong oxidising agents and strong acids.

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### 11.0 TOXICOLOGICAL INFORMATION

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- 11.1 Fructose is a widely used sweetener in beverages and foods.

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### 12.0 ECOLOGICAL INFORMATION

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- 12.1 Fructose is biodegradable.

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### 13.0 DISPOSAL CONSIDERATIONS

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- 13.1 Dispose in landfill or flush to drain with large amounts of water, **depending upon local regulations**. Fructose is biodegradable in waste treatment facilities.

## CRYSTALLINE FRUCTOSE

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### **14.0 TRANSPORT INFORMATION**

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

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### **15.0 REGULATORY INFORMATION**

15.1 Fructose is a naturally-occurring and widely-used sugar.

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### **16.0 ADDITIONAL INFORMATION**

16.1 See Product Data Sheet.

16.2 This Safety Data Sheet is based upon a limited review of ADM files and standard Toxicological handbooks.



## MATERIAL SAFETY DATA SHEET

REF: 91/155 EEC AND AMENDMENTS WITH RESPECTIVE NATIONAL IMPLEMENTATIONS

### ADM WHEAT PROTEIN ISOLATE

#### 1.0 SUBSTANCE IDENTIFICATION

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- 1.1 Commercial product name: Wheat Protein Isolate
- 1.2 Chemical characterisation: Not Applicable
- 1.3 Formula: N/A
- 1.4 Molecular weight: Average >50,000.00
- 1.5 CAS No: 8002-80-0
- 1.6 EINECS No.:
- 1.7 **FOR USE IN FOOD**
- 1.8 Manufactured By: Archer Daniels Midland Company, 4666 Faries Parkway  
Decatur, Illinois, 62526, U.S.A.
- 1.9 Supplied in Australia by: ADM Australia Pty Ltd, PO Box 281, Suite 1003,  
Level 10, 1 Newland Street, Bondi Junction, NSW 2022
- 1.10 **Australian Emergency Telephone Number: 0417 285396**

#### 2.0 COMPOSITION

- 2.1 Wheat Protein Isolate, lactic acid, sulphite and (Phosphate for WPI200).
- 2.2 No hazardous impurities.

#### 3.0 HAZARDS IDENTIFICATION

- 3.1 **Wheat Protein Isolate is not classified as a Dangerous Substance within the definitions of EC Directive 67/584.**
- 3.2 Contact with eyes (e.g. dust particles) may cause irritation.
- 3.3 Avoid open flames or other ignition sources (ie electrical equipment; switch gear).

#### 4.0 FIRST AID MEASURES

- 4.1 After contact with eyes, flush immediately with plenty of water for 15 minutes and seek medical advice.

#### 5.0 FIRE FIGHTING MEASURES

- 5.1 Avoid ignition sources where a fine dust might be generated.
- 5.2 Water, carbon dioxide, or powder extinguisher may be used.
- 5.3 Fire fighters should wear protective clothing and approved respirator.
- 5.4 Burning may produce carbon monoxide.

#### 6.0 ACCIDENTAL RELEASE MEASURES

- 6.1 Recover product by vacuum or broom and shovel. Flush area with water to remove final traces.
- 6.2 Spillages of Wheat Protein Isolate and its solutions should be contained and collected on absorbent material. Thoroughly wash affected area.