



## MATERIAL SAFETY DATA SHEET

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

### SODIUM CITRATE

#### 1.0 SUBSTANCE IDENTIFICATION

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- 1.1 Commercial product name: Sodium Citrate including anhydrous, dehydrate etc
- 1.2 Chemical characterisation: Trisodium salt of 2-hydroxypropane-1,2,3, tricarboxylate
  
- 1.3 Formula:
- 1.4 Molecular weight: approx 258 - 294
- 1.5 CAS No: 6132-04-3
- 1.6 EINECS No.: 200-675-3
- 1.7 **FOR USE IN FOOD as a food additive**
- 1.8 Manufactured by: Archer Daniels Midland Company, 4666 Faries Parkway,  
Decatur, Illinois 62526, U.S.A.
- 1.9 Supplied 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: 0417285396**

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#### 2.0 COMPOSITION

- 2.1 Totally 100% sodium citrate
- 2.2 Volatile matter 6-12 % maximum after drying for 4 hours at 180°C
- 2.3 Sodium ion content typically 23 - 24%

#### 3.0 HAZARDS IDENTIFICATION

- 3.1 **Sodium citrate 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 Flush affected parts with plenty of water

#### 5.0 FIRE FIGHTING MEASURES

- 5.1 All types of fire extinguisher are suitable
- 5.2 Firefighters wear protective clothing and NIOSH approved respirator

#### 6.0 ACCIDENTAL RELEASE MEASURES

- 6.1 After spillage/leakage : Recover by vacuum, or broom and shovel. Flush area with water to remove final traces.

#### 7.0 HANDLING AND STORAGE

- 7.1 Store in tightly closed containers, away from extreme heat and humidity. Maximum 25°C and 50% relative humidity.
- 7.2 Industrial Hygiene: Good ventilation required if process creates the formation of dust.

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## 8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Personal precautions: Avoid breathing dust.  
Avoid contact with eyes.
- 8.2 Respiratory protection: Approved nuisance dust mask
- 8.3 Hand protection: Standard work gloves
- 8.4 Eye protection: Goggles or safety glasses

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## 9.0 PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Appearance: Crystals
- 9.2 Colour: Colourless
- 9.3 Odour: Odourless
- 9.4 Molecular weight: 258 - 294
- 9.5 Change in physical state: Loss of water above 180°C, with decomposition
- 9.6 Specific gravity Bulk density: 1.97 920-1150 kg/m<sup>3</sup> (typical range)
  
- 9.8 Vapour pressure: N/A - solid
- 9.9 Viscosity: N/A - solid
- 9.10 Solubility - in water (25°C) 40 - 60% w/w  
- in ethanol (25°C) Insoluble
- 9.11 pH (5% solution) (25°C) 7 - 9
- 9.12 Flash point N/A
- 9.13 Explosive properties N/A
- 9.14 Flammability: Requires external heat to burn
- 9.12 Thermal decomposition: Above 230°C may evolve carbon monoxide  
and carbon dioxide

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## 10.0 STABILITY AND REACTIVITY

- 10.1 Shelf life : Sodium citrate is chemically stable if stored under cool, dry conditions; 25°C maximum and 50% relative humidity. It deliquesces in moist air. Physical properties may change on storage: re-test recommended periodically based on actual storage conditions.
  
- 10.4 Reactivity: Sodium citrate is a neutral salt with low activity.

## 11.0 TOXICOLOGICAL INFORMATION

- 11.1 LD<sub>50</sub> (dog): Not available

## 12.0 ECOLOGICAL INFORMATION

- 12.1 Not Available
- 12.2 Not Available

### **13.0 DISPOSAL CONSIDERATIONS**

13.1 Sodium citrate is suitable for landfill or disposal to sewer **depending upon local regulations.**

### **14.0 TRANSPORT INFORMATION**

14.1 No special considerations

### **15.0 REGULATORY INFORMATION**

15.1 Sodium citrate is an EU permitted Food Additive (E 332). Conditions of use: Quantum Satis. The US Food and Drug Administration classifies potassium citrate as a GRAS (Generally Recognised As Safe) food ingredient.

15.2 According to the Joint Expert Committee on Food Additives of WHO/FAO potassium Citrate may be used without limitation according to Good Manufacturing Practices.

### **16.0 ADDITIONAL INFORMATION**

16.1 See Product Data Sheet.