

## SAFETY DATA SHEET

Creation Date 09-December-2009

Revision Date 17-January-2018

Revision Number 4

### 1. Identification

**Product Name** Sodium Citrate Dihydrate

**Cat No. :** S279-3; S279-10; S279-10LC; S279-50; S279-50KB; S279-275LB; S279-500; S279-500LC;

**CAS-No** 6132-04-3  
**Synonyms** 2-Hydroxy-1,2,3-Propanetricarboxylic Acid Trisodium Salt; Citric Acid Trisodium Salt Dihydrate

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

#### Details of the supplier of the safety data sheet

##### Company

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

##### **Manufacturer**

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

##### **Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

### 2. Hazard(s) identification

#### Classification

**WHMIS 2015 Classification** Not classified under the Hazardous Products Regulations (SOR/2015-17)

Based on available data, the classification criteria are not met

#### Label Elements

None required

### 3. Composition/Information on Ingredients

| Component                  | CAS-No    | Weight % |
|----------------------------|-----------|----------|
| Citrate, sodium, dihydrate | 6132-04-3 | 100      |
| Sodium citrate             | 68-04-2   | -        |

#### 4. First-aid measures

|   |   |
|---|---|
| <b>Eye Contact</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur. |
| <b>Skin Contact</b>   | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.                 |
| <b>Inhalation</b>   | Move to fresh air. Get medical attention immediately if symptoms occur.   |
| <b>Ingestion</b>  | Do not induce vomiting. Get medical attention immediately if symptoms occur.  |
| <b>Most important symptoms/effects<br/>Notes to Physician</b> | No information available.<br>Treat symptomatically  |

#### 5. Fire-fighting measures

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| <b>Unsuitable Extinguishing Media</b>   | No information available   |
| <b>Flash Point<br/>Method -</b>         | No information available<br>No information available                     |
| <b>Autoignition Temperature</b>         | 345 °C / 653 °F  |
| <b>Explosion Limits</b>                 |  |
| <b>Upper</b>                            | No data available  |
| <b>Lower</b>                            | No data available  |
| <b>Sensitivity to Mechanical Impact</b> | No information available   |
| <b>Sensitivity to Static Discharge</b>  | No information available   |

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Dust can form an explosive mixture in air. Fine dust dispersed in air may ignite.

#### Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>) Sodium oxides

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

|               |                     |                    |                         |
|---------------|---------------------|--------------------|-------------------------|
| <b>Health</b> | <b>Flammability</b> | <b>Instability</b> | <b>Physical hazards</b> |
| 0             | 0                   | 0                  | N/A                     |

#### 6. Accidental release measures

|   |   |
|---|---|
| <b>Personal Precautions</b>                 | Ensure adequate ventilation. Avoid dust formation. Avoid contact with the skin and the eyes. Use personal protective equipment as required. |
| <b>Environmental Precautions</b>            | No special environmental precautions required. See Section 12 for additional ecological information.  |
| <b>Methods for Containment and Clean Up</b> | Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.  |

#### 7. Handling and storage

|                 |  |
|-----------------|--|
| <b>Handling</b> | Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation. |
|-----------------|--|

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### **Personal protective equipment**

**Eye Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Hand Protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

| Glove material | Breakthrough time                 | Glove thickness | Glove comments         |
|----------------|-----------------------------------|-----------------|------------------------|
| Nitrile rubber | See manufacturers recommendations | -               | Splash protection only |
| Neoprene       |                                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

### **Respiratory Protection**

No protective equipment is needed under normal use conditions.

**Recommended Filter type:** Particle filter

### **Environmental exposure controls**

No information available.

### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

## 9. Physical and chemical properties

|   |                           |
|---|---------------------------|
| <b>Physical State</b>                   | Solid                     |
| <b>Appearance</b>                       | White                     |
| <b>Odor</b>                             | Odorless                  |
| <b>Odor Threshold</b>                   | No information available  |
| <b>pH</b>                               | 7.0 - 9.0 5% aq. solution |
| <b>Melting Point/Range</b>              | 300 °C / 572 °F           |
| <b>Boiling Point/Range</b>              | No information available  |
| <b>Flash Point</b>                      | No information available  |
| <b>Evaporation Rate</b>                 | Not applicable            |
| <b>Flammability (solid,gas)</b>         | No information available  |
| <b>Flammability or explosive limits</b> |                           |
| <b>Upper</b>                            | No data available         |
| <b>Lower</b>                            | No data available         |
| <b>Vapor Pressure</b>                   | No information available  |

|  |                          |
|--|--------------------------|
| Vapor Density                          | Not applicable           |
| Specific Gravity                       | No information available |
| Solubility                             | Soluble in water         |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               | 345 °C / 653 °F          |
| Decomposition Temperature              | > 230°C                  |
| Viscosity                              | Not applicable           |
| Molecular Formula                      | C6 H5 Na3 O7 . 2 H2 O    |
| Molecular Weight                       | 294.09                   |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactive Hazard</b>                  | None known, based on information available                             |
| <b>Stability</b>                        | Stable under normal conditions.  |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Avoid dust formation.              |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong reducing agents, Acids, Bases          |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Sodium oxides |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.                               |
| <b>Hazardous Reactions</b>              | None under normal processing.  |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

| Component                  | LD50 Oral                               | LD50 Dermal                             | LC50 Inhalation |
|----------------------------|---|---|-----------------|
| Citrate, sodium, dihydrate | LD50 = 5400 mg/kg (Mouse)<br>(OECD 401) | LD50 = > 2000 mg/kg (Rat) (OECD<br>402) | Not listed      |

**Toxicologically Synergistic Products** No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                        |  |
|------------------------|--|
| <b>Irritation</b>      | No information available   |
| <b>Sensitization</b>   | No information available   |
| <b>Carcinogenicity</b> | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component                  | CAS-No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|----------------------------|-----------|------------|------------|------------|------------|------------|
| Citrate, sodium, dihydrate | 6132-04-3 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Sodium citrate             | 68-04-2   | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

| Component      | Freshwater Algae                                   | Freshwater Fish                                     | Microtox                  | Water Flea                                   |
|----------------|--|---|---------------------------|--|
| Sodium citrate | EC50: 18000 - 32000 mg/L, 96h (Chlorella vulgaris) | LC50: 18000 - 32000 mg/L, 96h (Poecilia reticulata) | EC50 1800 - 3200 mg/L 8 h | EC50: 5600 - 10000 mg/L, 48h (Daphnia magna) |

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

### International Inventories

| Component                  | DSL | NDSL | TSCA | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|----------------------------|-----|------|------|-----------|--------|-----|-------|------|------|-------|------|
| Citrate, sodium, dihydrate | -   | -    | -    | -         | -      |     | X     | -    | X    | X     | -    |
| Sodium citrate             | X   | -    | X    | 200-675-3 | -      |     | X     | X    | X    | X     | X    |

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. Other information

**Prepared By** Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

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**Revision Summary** This document has been updated to comply with the requirements of WHMIS 2015 to align

with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**