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**Material Safety Data Sheet**

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Product Name	<b><u>Tri-Sodium Citrate Dihydrate</u></b>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Tri-Sodium Citrate Dihydrate**Synonyms:** Citric acid trisodium salt dihydrate**CAS-No:** 6132-04-3**EC-No.:** 200-675-3**Molecular Formula:**  $C_6H_5Na_3O_7 \cdot 2H_2O$ **REACH Registration No:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad,  
Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety@finarchemicals.com](mailto:safety@finarchemicals.com); [info@finarchemicals.com](mailto:info@finarchemicals.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 - 40040085

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**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture:**

This substance is not classified as dangerous according to European Union legislation.

**2.2. Label Elements:**

**Labeling Regulation (EC) No 1272/2008**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.3. Other Hazards:**

None Known

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances:** Tri-Sodium Citrate Dihydrate

**3.2. Mixtures:**

Component	CAS-No	EC-No.	Weight %
Tri-Sodium Citrate Dihydrate	6132-04-3	200-675-3	100%

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of first aid measures:**

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

Fresh air.

- **In case of skin contact**

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

- **In case of eye contact**

Rinse out with plenty of water. Remove contact lenses.

- **If swallowed**

Make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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**4.2. Most important symptoms and effects, both acute and delayed:**

Irritation and corrosion, Bloody vomiting

**4.3. Indication of any immediate medical attention and special treatment needed:**

No data available

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media:**

**Suitable Extinguishing Media** Use water , alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media:** For this substance/mixture no limitations of extinguishing agents are given.

**5.2. Special hazards arising from the substance or mixture:**

Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3. Advice for firefighters:**

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

**5.4 Further Information:**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Suppress (knock down) gases/vapours/mists with a water spray jet.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: For personal protection see section 8.

**6.2. Environmental precautions:**

Do not let product enter drains.

**6.3. Methods and material for containment and cleaning up:**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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**6.4. Reference to other sections:**

For disposal see Sections 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling:**

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.

Avoid ingestion and inhalation. Avoid dust formation.

**7.2. Conditions for safe storage, including any incompatibilities:**

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

**7.3. Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters:**

Contains no substances with occupational exposure limit values.

**8.2. Exposure Controls:**

- **Appropriate Engineering Controls:**

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

- **Personal Protective Equipment:**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Eye & Face Protection-**

Safety Goggles

- **Respiratory Protection-**

No protective equipment is needed under normal use conditions.

- **Environmental Exposure Controls-**

Do not let product enter drains.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties:**

- **Physical State:** Solid
- **Appearance:** White
- **Odor:** Odorless
- **pH:** 7.0 – 9.0 at 50g/l 25°C
- **Melting Point:** 300°C
- **Auto-Ignition Temperature:** 345 °C
- **Vapor Pressure:** No data available
- **Vapor Density:** No data available
- **Volatility:** No data available
- **Bulk Density:** ca. 600 kg/m<sup>3</sup>
- **Odor Threshold:** No data available
- **Viscosity, dynamic:** at 20°C Not applicable
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available
- **Partition Coefficient n-octanol/water:** No data available
- **Relative Density:** No data available
- **Boiling Point/Range:** No data available
- **Decomposition Temperature:** >230°C
- **Flash Point:** No data available
- **Density:** 1.65 g/cm<sup>3</sup> at 20°C
- **Molecular Weight:** 294.09 g/mol
- **Solubility:** 720 g/l at 25°C

**9.2. Other information:****Molecular Formula:** C<sub>6</sub>H<sub>5</sub>Na<sub>3</sub>O<sub>7</sub> · 2H<sub>2</sub>O

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**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

Risk of dust explosion.

**10.2. Chemical stability:**

The product is chemically stable under standard ambient conditions (room temperature).

**10.3. Possibility of hazardous reactions:**

Violent reactions possible with:

Strong Oxidizing agents

**10.4. Conditions to avoid:**

Strong heating (decomposition).

**10.5. Incompatible materials:**

No data available

**10.6. Hazardous decomposition products:**

In the event of fire: See section 5.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects:****Acute Oral toxicity**

LD50 Rat: >8000 mg/kg

(anhydrous substance) (IUCLID)

Symptoms: Ingestion causes burns of the upper digestive and respiratory tracts.

**Acute inhalation toxicity**

No data available

**Acute dermal toxicity**

No data available

**Skin corrosion/irritation**

Skin – Rabbit

Result: No Irritation

OECD Test Guideline 404

(anhydrous substance)

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**Serious eye damage/eye irritation**

Rabbit

Result: slight irritation

OECD Test Guideline 405

(anhydrous substance)

**Respiratory or skin sensitization**

Sensitisation test: Guinea pig

Result: negative

(anhydrous substance) (IUCLID)

**Germ cell mutagenicity**

Genotoxicity in vitro

Ames test

Result: negative

(anhydrous substance) (IUCLID)

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information:**

After uptake:

Bloody vomiting, disturbed electrolyte balance.

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:**

**Toxicity to fish**

LC50 *Poecilia reticulata* (guppy): > 18,000 - 32,000 mg/l; 96 h  
(anhydrous substance) (IUCLID)

**Toxicity to daphnia and other aquatic invertebrates**

EC50 *Daphnia magna* (Water flea): 5,600 - 10,000 mg/l; 48 h  
(anhydrous substance) (IUCLID)

**Toxicity to algae**

IC50 *Chlorella vulgaris* (Fresh water algae): > 18,000 - 32,000 mg/l; 96 h  
OECD Test Guideline 201  
(anhydrous substance)

**Toxicity to bacteria**

Toxicity to bacteria EC50 *Pseudomonas fluorescens*: > 1,800 - 3,200 mg/l; 8 h  
(anhydrous substance) (IUCLID)

**12.2 Persistence and degradability:**

Biodegradability

98 %; 3 d

(External MSDS)

Readily biodegradable

**12.3 Bioaccumulate potential:**

No data available

**12.4 Mobility in soil:**

No data available

**12.5 Results of PBT and vPvB assessment:**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects:**

Discharge into the environment must be avoided.



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### **SECTION 13: Disposal considerations**

#### **13.1 Waste treatment methods:**

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste.

Handle uncleaned containers like the product itself.

### **SECTION 14: Transport information**

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
<b>14.1 UN number</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.2 Proper shipping name</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.3 Class</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.4 Packing group</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.5 Environmentally hazardous</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.6 Special precautions for user</b>	Not classified as dangerous in the meaning of transport regulations.		
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>			
No Data Available			

### **SECTION 15: Regulatory information**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

National legislation

Storage class 10-13

#### **15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

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**SECTION 16: Other information**

**Training advice**

Provide adequate information, instruction and training for operators.

**References:** Not available

**Created:** 18/06/2020

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, 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 Finar Limited 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 Finar Limited has been advised of the possibility of such damages.