

## Safety Data Sheet

### 1. IDENTIFICATION

|                                |   |
|--------------------------------|---|
| <b>Product Identifier:</b>     | <b>Sodium Citrate, Dihydrate</b>  |
| <b>Product Code(s):</b>        | S1092, S1120  |
| <b>Synonyms:</b>               | Trisodium Citrate, Dihydrate; Sodium Citrate, Tribasic, Dihydrate; Citric Acid, Trisodium Salt, Dihydrate.            |
| <b>Recommended Use:</b>        | For manufacturing, industrial, and laboratory use only.   |
| <b>Uses Advised Against:</b>   | Not for household use.  |
| <b>Supplier:</b>               | Rocky Mountain Reagents, Inc.<br>4621 Technology Drive, Golden, CO 80403<br>Phone: (303) 762-0800 Fax: (303) 762-1240 |
| <b>Emergency Phone Number:</b> | For health emergency, call Poison Control: (800) 222-1222.  |

### 2. HAZARDS IDENTIFICATION

|  |   |
|--|---|
| <b>Hazard Classifications:</b>           | This product is classified as not hazardous under OSHA's Hazard Communication Standard, 29 CFR 1910.1200 (HCS) and the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). However, all chemicals handled and used in the workplace should be treated with caution. |
| <b>Signal Word:</b>                      | Not applicable.   |
| <b>Hazard Statements:</b>                | Not applicable.   |
| <b>Pictograms:</b>                       | Not applicable.   |
| <b>Precautionary Statements:</b>         |   |
| <b>Prevention:</b>                       | Not applicable.   |
| <b>Response:</b>                         | Not applicable.   |
| <b>Storage:</b>                          | Not applicable.   |
| <b>Disposal:</b>                         | Not applicable.   |
| <b>Hazards Not Otherwise Classified:</b> | Not applicable.   |

**Toxicity Statement:** This product consists of 100% components whose acute toxicities are unknown.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Component                 | Common Name / Synonyms       | CAS#      | Chemical Formula   | % by Weight |
|---------------------------|------------------------------|-----------|--|-------------|
| Sodium Citrate, Dihydrate | Trisodium Citrate, Dihydrate | 6132-04-3 | Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> • 2H <sub>2</sub> O | ≥ 99.0      |

**Trade Secret Statement:** Not applicable.

### 4. FIRST AID MEASURES

#### First Aid Procedures:

- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.
- Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center if symptoms occur.
- Skin Contact:** Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if symptoms occur.
- Eye Contact:** Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Immediate medical attention is required. Call a physician if symptoms occur.
- General Advice:** Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Symptoms and Effects:** Irritation, coughing, sneezing, shortness of breath, abdominal pain, nausea, vomiting, diarrhea. May be harmful if swallowed. May cause irritation to the respiratory tract, digestive tract, skin, and eyes. May affect the blood, heart, and central nervous system.
- Immediate Medical Care/  
Special Treatment:** If you feel unwell or are concerned, get medical attention. Treat symptomatically.

### 5. FIREFIGHTING MEASURES

- Suitable Extinguishing Media:** Water spray, dry powder, alcohol resistant foam, carbon dioxide.
- Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream, as it may scatter and spread fire.
- Hazardous Combustion Products:** Sodium oxides, carbon oxides.
- Specific Hazards:** Excessive thermal conditions may cause decomposition and yield hazardous combustion products listed above.
- Special Protective Equipment/  
Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

|   |   |
|---|---|
| <b>Personal Precautions and Protective Equipment:</b> | Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.  |
| <b>Emergency Procedures:</b>                          | In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).   |
| <b>Methods for Containment:</b>                       | Prevent entry into waterways, sewer, basements, or confined areas. Avoid generation of product as dust. Product should not be released to the environment. Contain and recover crystal when possible.   |
| <b>Methods for Cleanup:</b>                           | Sweep or collect spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations. |

## 7. HANDLING AND STORAGE

|                  |  |
|------------------|--|
| <b>Handling:</b> | Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes, and clothing. Avoid generation of dust. Do not breathe product dust. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product. |
| <b>Storage:</b>  | Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.  |

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

|                                      |   |
|--------------------------------------|---|
| <b>Exposure Limits:</b>              | No information found.   |
| <b>Engineering Controls:</b>         | Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| <b>Personal Protective Measures:</b> |   |
| <b>Eye/Face Protection:</b>          | Wear safety glasses with side shields or goggles. Maintain approved eye wash station and accessible rinse facilities in work area.  |
| <b>Skin Protection:</b>              | Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.   |
| <b>Respiratory Protection:</b>       | An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any   |

potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

**Specific Requirements for Personal Protective Equipment:**

Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

*Unless otherwise indicated, all properties are given at 25 °C and standard pressure.*

|   |   |
|---|---|
| <b>Appearance:</b>                              | White, translucent, crystalline solid.  |
| <b>Odor:</b>                                    | Odorless.                               |
| <b>Odor Threshold:</b>                          | No information found.                   |
| <b>Formula Weight:</b>                          | 294.10                                  |
| <b>pH:</b>                                      | 7.5 – 9.0 (29.4 g/L aqueous)            |
| <b>Melting/Freezing Point:</b>                  | 313.9 °C                                |
| <b>Boiling Point/Range:</b>                     | No information found.                   |
| <b>Decomposition Temperature:</b>               | No information found.                   |
| <b>Flash Point:</b>                             | Not applicable.                         |
| <b>Auto-ignition Temperature:</b>               | Not applicable.                         |
| <b>Flammability:</b>                            | Not flammable.                          |
| <b>Flammability/Explosive Limits:</b>           | Not applicable.                         |
| <b>Solubility:</b>                              | Soluble in water, insoluble in alcohol. |
| <b>Vapor Pressure:</b>                          | No information found.                   |
| <b>Vapor Density:</b>                           | No information found.                   |
| <b>Specific Gravity:</b>                        | 1.665 (Water = 1)                       |
| <b>Evaporation Rate:</b>                        | No information found.                   |
| <b>Viscosity:</b>                               | No information found.                   |
| <b>Partition Coefficient (n-octanol/water):</b> | No information found.                   |

## 10. STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Reactivity Data:</b>                    | No information found.   |
| <b>Chemical Stability:</b>                 | Stable under normal conditions.   |
| <b>Conditions to Avoid:</b>                | Excessive heat, incompatible materials.   |
| <b>Incompatible Materials:</b>             | Strong oxidizers.   |
| <b>Hazardous Decomposition Products:</b>   | Sodium oxides, carbon oxides.   |
| <b>Possibility of Hazardous Reactions:</b> | May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above. |

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Routes of Exposure:** Inhalation, ingestion, skin contact, eye contact.

**Acute Effects:** May be harmful if swallowed. May cause irritation to the respiratory tract, digestive tract, skin, and eyes. May affect the blood, heart, and central nervous system.

**Chronic Effects:** No information found.

**Toxicological Data:** No information found.

**Symptoms of Exposure:** Irritation, coughing, sneezing, shortness of breath, abdominal pain, nausea, vomiting, diarrhea.

**Carcinogenic Effects:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicological Data:** No information found.

**Persistence and Degradability:** No information found.

**Environmental Effects:** Not expected to be hazardous to the environment. However, the possibility of an environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## 13. DISPOSAL INFORMATION

**Disposal Instructions:** Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers. All wastes must be handled in accordance with local, state, and federal regulations.

**Contaminated Packaging:** Because containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

**Waste Codes:** No information found.

## 14. TRANSPORT INFORMATION

**DOT:** Not regulated.

**Environmental Hazard Regulations:** No information found.

**Other Transport Precautions:** No information found.

## 15. REGULATORY INFORMATION

**U.S. Federal Regulations:**

**OSHA:** This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Inventory:** All components of this product are on the U.S. TSCA Inventory.

**U.S. EPCRA (SARA Title III):**

**Section 302:** No information found.

**Sections 311/312:**

| Hazard Category                  | List (Yes/No) |
|----------------------------------|---------------|
| Section 311 – Hazardous Chemical | No            |
| Immediate Hazard                 | No            |
| Delayed Hazard                   | No            |
| Fire Hazard                      | No            |
| Pressure Hazard                  | No            |
| Reactivity Hazard                | No            |

**Section 313:** No information found.

**CERCLA Reportable Quantities:** No information found.

**International Inventories:**

| Country or Region | Inventory Name   | On Inventory (Yes/No)* |
|-------------------|--|------------------------|
| Australia         | Australian Inventory of Chemical Substances (AICS)                     | Yes                    |
| Canada            | Domestic Substances List (DSL)   | Yes                    |
| Canada            | Non-Domestic Substances List (NDSL)                                    | No                     |
| China             | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe            | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe            | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan             | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea             | Existing Chemicals List (ECL)  | Yes                    |
| Philippines       | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |

\*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

## 16. OTHER INFORMATION

**Disclaimer:**

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