

Section 1: Product & Company Information

Product Identifier: Sodium Citrate

Other Means of Identification

Product Number: 110007

Recommended Use and Restrictions on Use

Recommended Use: Not available.

Restrictions on Use: Not known.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.

Address: 4320 Greenway Drive
Knoxville, TN 37918 USA

Information Telephone Number: 1-865-524-4239

Fax Number: 1-865-524-3375

Website: www.corecheminc.com

Contact Person: Regulatory Manager

E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Section 3: Composition/Information on Ingredients

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Tri Sodium Citrate, Dihydrate	-	6132-04-3	100%	-

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

Skin Contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention.

Eye Contact

Flush thoroughly with water. If irritation occurs, get medical assistance. Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Ingestion

Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms

No data available.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

No data available.

Section 5: Fire-Fighting Measures

General Fire Hazards

In case of fire and/or explosion do not breathe fumes. Dust may form explosive mixture with air.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide, water spray, alcohol-resistant foam.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Hazardous combustion products: irritating and toxic fumes.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special Protective Equipment for Fire-Fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode. Move containers from fire area if possible to do so without risk.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Evacuate spill area. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low area. Remove all possible sources of ignition in the surrounding area. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate contaminated area thoroughly shut off leaks if possible without personal risk.

Methods and Materials for Containment and Clean-Up

Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. In case of dust production: keep upwind. Clean contaminated surfaces with an excess of water.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of dust. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for Safe Storage, including any Incompatibilities

Keep containers tightly closed, in dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Keep away from combustible and flammable materials. Do not store together with strong acids, reducing agents and strong oxidizing agents.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

The product does not contain any relevant quantities of hazardous materials with critical values that have to be monitored in the workplace.

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. 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. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Use tight fitting goggles if dust is generated.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

In case of inadequate ventilation use suitable respirator.

Hygiene Measures

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Solid, Powder
Color: White

Odor:

Odorless

Odor Threshold:

No data available.

pH:

7.5 – 9 @ 29.4 g/l at 25°C

Melting Point/Freezing Point:

>300°C

Initial Boiling Point and Boiling

No data available.

Range:

Flash Point:

>200

Evaporation Rate (butyl acetate=1):

No data available.

Flammability (solid, gas):

No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: No data available.

Flammability Limit – Lower: No data available.

Explosive Limit – Upper: No data available.

Explosive Limit – Lower: No data available.

Vapor Pressure:

No data available.

Vapor Density (air =1):

No data available.

Relative Density (water=1):

1.921 (20 °C)

Solubility(ies):

Solubility in water: Soluble

Solubility (ethanol): Insoluble

Partition coefficient (n-octanol/water):

No data available.

Auto-Ignition Temperature:

345°C

Decomposition Temperature:

No data available.

Viscosity:

No data available.

Other Information:

Molecular Weight: No data available.

Formula: No data available.

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Heat, sparks, and open flame.

Incompatible Materials

Strong acids, reducing agents, and strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition may release oxides of carbon. Sodium oxides

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Expected to be a low ingestion hazard.

Inhalation: Dust may irritate respiratory system.

Skin Contact: May cause irritation.

Eye Contact: Dust in the eyes will cause irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

No data available.

Dermal

No data available.

Inhalation

No data available.

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

May cause skin irritation.

Serious Eye Damage/Eye Irritation

May irritate eyes.

Respiratory/Skin Sensitization

Not a skin nor a respiratory sensitizer.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known or expected.

Specific Target Organ Toxicity – Single Exposure

None known.

Specific Target Organ Toxicity – Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

Sodium Citrate Dihydrate: EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 655 mg/l

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

Expected to be readily biodegradable.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

The product is water soluble and may spread in water systems.

Other Adverse Effects

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Section 13: Disposal Considerations

Disposal Instructions

Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

Section 14: Transportation Information

US Department of Transportation (DOT)

This material is not regulated as a hazardous material for transport by the U.S. Department of Transportation in accordance with 49 CFR 172.101.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No

Sudden Release of Pressure: No

Reactive: No

Acute (Immediate) Health Hazard: No

Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 1

Chronic Health Hazard: /

Flammability: 1

Physical Hazard: 0

Personal Protection: X

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1

Fire Hazard: 1

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

EC50 - Effective concentration, 50%

IDHL - Immediately Dangerous to Life and Health

Kg - Kilogram

l - Liter

lb - Pound

LC50 - Lethal Concentration, 50%

LD50 - Lethal Dose, 50%

mg - milligram

ml - milliliter

N/A - Not Applicable

N/D - Not Determined

PEL - Permissible Exposure Limit

REL - Recommended Exposure Limit

STEL - Short-term Exposure Limit

TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists

AIHA - American Industrial Hygiene Association

BEI - Biological Exposure Indices

CAS - Chemical Abstracts Service

DOT - US Department of Transportation

EPA - US Environmental Protection Agency

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - Intermediate Bulk Container

IMDG - International Maritime Dangerous Goods

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - US Occupational Health and Safety Administration

SARA - US EPA Superfund Amendments and Reauthorization Act

TSCA - US EPA Toxic Substances Control Act

UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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