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## SECTION: 1. Product and company identification

### 1.1.Product identifier

Trade name/designation : Trisodium Citrate Dihydrate Granular  
Trisodium Citrate Dihydrate Fine Granular  
Trisodium Citrate Dihydrate Powder

CAS-No. : 6132-04-3

Product code : 0412503, 0412325

Product form : Substance

Synonyms : 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, trisodium salt, dihydrate / Citric acid, trisodium salt, dihydrate / 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, sodium salt, hydrate (1:3:2) / Sodium citrate, dihydrate / Trisodium 2-hydroxypropane-1,2,3-tricarboxylate dihydrate / Sodium citrate dihydrate / Trisodium citrate

### 1.2.Relevant identified uses of the substance or mixture and uses advised against

Main use category : Industrial use

Specific end use(s) : Food additive  
Cosmetics, personal care products  
Construction materials

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

Company : Citribel nv  
Pastorijstraat 249  
3300 -Tienen , Belgium  
Telephone +32 16 806600  
E-mail: compliance@citribel.com

### 1.4.Emergency telephone number

Emergency telephone : 09.00-17.00 h: +32 16-806600  
17.00-09.00 h: +32-16-806669  
In case of poisoning, call your poison control center at 1-800-222-1222

## SECTION: 2. Hazards identification

### 2.1.Classification of the substance or mixture

OSHA Regulatory Status : This material is classified as not hazardous under OSHA regulations.

### 2.2.Label elements


Signal word (GHS US) : Not applicable.

Hazard statements (GHS US) : Not applicable

Precautionary statements (GHS US) : Not applicable

### 2.3.Other hazards

Other hazards which do not result in classification : Dust may form flammable and explosive mixture with air

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### SECTION: 3. Composition/information on ingredients

Substance name	CAS-No.	%
Trisodium citrate dihydrate	6132-04-3	≥ 99,7

### SECTION: 4. First aid measures

#### 4.1. Description of first aid measures

Inhalation	: Remove casualty to fresh air and keep warm and at rest In case of doubt or persistent symptoms, consult always a physician
Skin contact	: Remove contaminated clothing and shoes Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult always a physician
Ingestion	: Rinse mouth thoroughly with water Give small amounts of water to drink. Do not induce vomiting without medical advice In case of doubt or persistent symptoms, consult always a physician
Additional advice	: First aider: Pay attention to self-protection! Concerning personal protective equipment to use, see section 8 Never give anything by mouth to an unconscious person In case of doubt or persistent symptoms, consult always a physician Show this safety data sheet to the doctor in attendance. Treat symptomatically

#### 4.2. Most important symptoms and effects, both acute and delayed

Inhalation	: The following symptoms may occur: May cause respiratory irritation. Cough.
Skin contact	: Health injuries are not known or expected under normal use.
Eyes contact	: The following symptoms may occur: Irritation Redness.
Ingestion	: Health injuries are not known or expected under normal use.

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

No specific measures identified.


### SECTION: 5. Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide
For safety reasons unsuitable extinguishing agents	: Strong water jet

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Non flammable
Specific hazards	: Dust may form explosive mixture in air Hazardous decomposition products in case of fire

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Carbon oxides (CO, CO<sub>2</sub>)

### **5.3. Advice for firefighters**

Advice for firefighters

- : Do not attempt to take action without suitable protective equipment
- Special protective equipment for firefighters.
- In case of fire: Wear self-contained breathing apparatus.
- Use water spray or fog for cooling exposed containers
- Do not allow run-off from fire-fighting to enter drains or water courses.
- Dispose of waste in accordance with environmental legislation
- Evacuate personnel to a safe area

## **SECTION: 6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

- : Evacuate personnel to a safe area
- Stay upwind/keep distance from source.
- Provide adequate ventilation
- Use personal protective equipment as required.
- Concerning personal protective equipment to use, see section 8
- Do not breathe dust
- Avoid contact with skin, eyes and clothing
- Do not allow to enter into surface water or drains
- Notify authorities if product enters sewers or public waters

For emergency responders

- : Ensure procedures and training for emergency decontamination and disposal are in place
- Concerning personal protective equipment to use, see section 8.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains

Notify authorities if product enters sewers or public waters


### **6.2. Methods and material for containment and cleaning up**

Spill or leak statements by chemical

- : Stop leak if safe to do so.
- Dam up the solid spill
- Avoid dust formation
- Use only non-sparking tools.
- Use only explosion-proof equipment.
- Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal
- Clean-up methods - small spillage:
- Clean up immediately by sweeping or vacuum
- Large spills: scoop solid spill into closing containers
- This material and its container must be disposed of in a safe way, and as per local legislation.

### **6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

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## SECTION: 7. Handling and storage

### 7.1. Precautions for safe handling

Handling	: Provide adequate ventilation Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8 Do not breathe dust Avoid contact with skin, eyes and clothing Take any precaution to avoid mixing with incompatible materials. See also section 10 Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow contact with soil, surface or ground water.
Advices on general occupational hygiene	: Keep good industrial hygiene Wash hands before breaks and immediately after using the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs Keep work clothes separately. Remove contaminated clothing and shoes Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Recommended storage temperature : 10 - 30 °C
Packaging materials	: Keep/Store only in original container.

## SECTION: 8. Exposure controls/personal protection

### 8.1. Exposure guidelines


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ACGIH	ACGIH OEL TWA	No data available

### 8.2. Engineering controls

Engineering measure(s)	: Provide adequate ventilation Organisational measures to prevent/limit releases, dispersion and exposure Apply measures to prevent dust explosions. See Section 7 for information on safe handling .
Environmental exposure controls	: Do not allow contact with soil, surface or ground water. Comply with applicable Community environmental protection legislation.

### 8.3. Personal protective equipment (PPE)

Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
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Respiratory protection	: Not required for normal conditions of use In case of insufficient ventilation, wear suitable respiratory equipment Effective dust mask Half face Air-Purifying Full face mask Filter type: P The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection	: Wear chemically resistant protective gloves. Suitable material: Nitrile rubber Thickness > 0,3mm Breakthrough time : >8h The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: In case of dust production: protective goggles
Body protection	: Wear suitable protective clothing Impervious clothing Wear suitable coveralls to prevent exposure to the skin
Thermal hazard protection	: Not required for normal conditions of use Use dedicated equipment

## SECTION: 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	: Powder, Granulate
Colour	: White, Colourless
Odour	: odourless
Odour threshold	: No data available
pH	: 8 – 8,7 at g/l: 50
Melting / freezing point	: > 300 °C
Initial boiling point and boiling range	: Decomposes before boiling
Flash point	: Not applicable
Evaporation rate	: No data available
Upper / lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Density	: 1,76 g/cm <sup>3</sup>
Relative density	: 1,76
Water solubility	: 720 g/l (25 °C)
Solubility in different media	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: > 230 °C
Viscosity	: No data available
Explosive properties	: Not applicable, The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

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Oxidising properties : Not applicable  
The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

## SECTION: 10. Stability and reactivity

### 10.1.Reactivity

Reactivity : None under normal conditions  
Reference to other sections 10.4 & 10.5

### 10.2.Chemical stability

Chemical stability : The product is stable under storage at normal ambient temperatures.

### 10.3.Possibility of hazardous reactions

Possibility of hazardous reactions : None under normal processing.

### 10.4.Conditions to avoid

Conditions to avoid : Avoid dust formation  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
See Section 7 for information on safe handling

### 10.5.Incompatible materials

Incompatible materials : Oxidising agents Reducing agent Acids Alkali See Section 7 for information on safe handling

### 10.6.Hazardous decomposition products

Hazardous decomposition products : Reference to other sections 5.2

## SECTION: 11. Toxicological information

### 11.1.Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)


<b>Trisodium citrate dihydrate (6132-04-3)</b>	
LD50/oral/rat	> 8000 mg/kg
LD50/dermal/rat	> 2000 mg/kg (Read-across (Analogy) Citric acid)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)  
pH: 8 – 8,7 at g/l: 50

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)  
pH: 8 – 8,7 at g/l: 50

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)  
No sensitizing reaction was observed for guinea pigs

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)  
In vivo tests did not show mutagenic effects  
Ames test

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Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.) Rat Oral : No carcinogenic effect
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met.)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met.)
Other information	: Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

## SECTION 12: Ecological information

### 12.1.Toxicity

Toxicity : Ecological injuries are not known or expected under normal use.

<b>Trisodium citrate dihydrate (6132-04-3)</b>	
LC50 - Fish [1]	18000 – 32000 mg/l (Poecilia reticulata (Guppy)) 96h
EC50 - Crustacea [1]	5600 – 10000 mg/l (Daphnia magna) 48h
EC50 - Other aquatic organisms [1]	1800 – 3200 mg/l (Pseudomonas putida) 8h

### 12.2.Persistence and degradability

Persistence and degradability : No data available

### 12.3.Bioaccumulative potential

Bioaccumulative potential : No data available

### 12.4.Mobility in soil

Mobility in soil : No data available


### 12.5.Other adverse effects

Other information : No data available

## SECTION 13: Disposal considerations

### 13.1.Waste treatment methods

Product waste: : Do not allow contact with soil, surface or ground water.  
Dispose of empty containers and wastes safely  
See Section 7 for information on safe handling  
Refer to manufacturer/supplier for information on recovery/recycling  
Recycling is preferred to disposal or incineration  
If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

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Contaminated packaging : Handle contaminated packages in the same way as the substance itself.  
Dispose of contaminated materials in accordance with current regulations

## SECTION 14: Transport information

### 14.1. Basic shipping description

#### DOT

UN-No.(DOT) : NA  
Proper Shipping Name (DOT) : NA  
Class (DOT) : Not applicable  
Packing group (DOT) : Not applicable  
Special provisions : Not applicable

### 14.2 Additional information

#### IMDG

IMDG : Not classified for this transport way.  
Packing group : NA

#### ICAO/IATA

ICAO/IATA : Not classified for this transport way.  
Packing group : NA

## SECTION: 15. Regulatory information

### 15.1. US Federal regulations

### 15.2. International regulations

#### 15.2.1. CANADA

##### Trisodium citrate dihydrate (6132-04-3)

WHMIS Classification : Uncontrolled product according to WHMIS classification criteria

#### 15.2.2. National regulations


No additional information available

### 15.3. US State regulations

#### Trisodium citrate dihydrate (6132-04-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	



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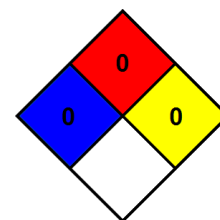
**Trisodium citrate dihydrate (6132-04-3)**

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term


**SECTION: 16. Other information**

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Key literature references and sources for data	: Information supplier, Loli, INCHEM 2.
Abbreviations and acronyms	: BTT = Breakthrough time (maximum wearing time) DOT= Department of Transport EC50 = Median Effective Concentration EL50 = Median effective level ErC50 = EC50 in terms of reduction of growth rate ErL50 = EL50 in terms of reduction of growth rate LC50 = Median lethal concentration LD50 = Median lethal dose LL50 = Median lethal level NA = Not applicable NOEC = No observed effect concentration NOEL: no-observed-effect level NOELR = No observed effect loading rate NOAEC = No observed adverse effect concentration NOAEL = No observed adverse effect level N.O.S. = Not Otherwise Specified OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs) STOT = Specific Target Organ Toxicity TWA = time weighted average VOC = Volatile organic compounds
Training advice	: Training staff on good practice.
<b>NFPA-code</b>	
NFPA health hazard	: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
<b>Hazard Rating</b>	
Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard



This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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