SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance

Trade name/designation : Trisodium Citrate Dihydrate Granular
Trisodium Citrate Dihydrate Fine Granular
Trisodium Citrate Dihydrate X-Fine Granular
Trisodium Citrate Dihydrate Powder
Trisodium Citrate Dihydrate CBTC30

Chemical name : 2-hydroxy-1,2,3-propanetricarboxylic acid trisodium salt

EC-No. : 200-675-3

CAS-No. : 6132-04-3

REACH registration No. : 01-2119457027-40-0003

Product code : 0412503, 0412325, 0412481, 0412326, 0412329

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 / risodium 2-hydroxypropane-1,2,3-tricarboxylate dihydrate

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Detergent & Cleaning products

Use of the substance/mixture : Food additive
Pharmaceutical industry
Cosmetics, personal care products, in industrial applications
Construction materials

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Citribel nv
Pastorijstraat 249
3300 Tienen
Belgium
T +32 16 806600
compliance@citribel.com

1.4. Emergency telephone number

Emergency number : 09.00-17.00 h: +32 16-806600
17.00-09.00 h: +32-16-806669

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Not applicable.

2.3. Other hazards

Other hazards : Dust may form explosive mixture in air. Results of PBT and vPvB assessment : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name : Trisodium Citrate Dihydrate

CAS-No. : 6132-04-3

EC-No. : 200-675-3

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
tri-Sodium citrate dihydrate	CAS-No.: 6132-04-3 EC-No.: 612-118-5 REACH-no: 01-2119457027-40-0003	≥ 99,7	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

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.
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.

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. Foam. Dry powder. Carbon dioxide.
Unsuitable extinguishing media	:	Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards	:	Not flammable.
Explosion hazard	:	Dust may form explosive mixture in air.
Hazardous decomposition products in case of fire	:	Carbon oxides (CO, CO2). Metal oxides.

5.3. Advice for firefighters

Firefighting instructions	:	Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	:	Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe dust. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools. Use explosion-proof equipment. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment.

Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Protect from heat and direct sunlight. Do not store near or with any of the incompatible materials listed in section 10. Opened containers must be carefully closed and kept upright to avoid leakage.

Storage temperature : 10 – 30 °C

Packaging materials : Keep only in the original container.

7.3. Specific end use(s)

Reference to other sections : 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

tri-Sodium citrate dihydrate (6132-04-3)	
DNEL/DMEL (additional information)	
Additional information	No data available
PNEC (additional information)	
Additional information	No data available

8.1.5. Control banding

No additional information available

8.2. Exposure 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 .

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.

Hand protection	:	Wear chemically resistant gloves (tested to EN374). 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	:	Use suitable eye protection (EN ISO 16321-1:2022). In case of dust production: protective goggles
Body protection	:	Wear suitable protective clothing. Impervious clothing. Wear suitable coveralls to prevent exposure to the skin
Respiratory protection	:	Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Effective dust mask (EN 149). Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: P (EN143). 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. (EN 137)
Thermal hazard protection	:	Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	:	Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White. Colourless.
Appearance	:	Powder. Granulate.
Odour	:	odourless.
Odour threshold	:	No data available
Melting / freezing point	:	> 300 °C
Freezing point	:	Not available
Initial boiling point and boiling range	:	Decomposes before boiling
Flammability	:	Non flammable
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.
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.
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	> 230 °C
pH value	:	8 – 8,7 at g/l: 50
pH solution	:	Not available
Kinematic viscosity	:	No data available
Dynamic viscosity	:	No data available
Solubility	:	Insoluble : Ethanol. Water: 720 g/l (25 °C)

Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	No data available
Vapour pressure at 50°C	:	Not available
Density	:	1,76 g/cm³
Relative density	:	1,76
Vapour density	:	No data available
Particle size	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Additional information : Molecular weight : 294,10 g/mole. Dust class : St(H)1

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions. Reference to other sections 10.4 & 10.5.

10.2. Chemical stability

Stable under normal conditions. Decomposes on heating.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. 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

Oxidising agents. Reducing agent. Acids. Alkali. See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

tri-Sodium citrate dihydrate (6132-04-3)	
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 value: 8 – 8,7 at g/l: 50

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

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Additional information : No sensitizing reaction was observed for guinea pigs

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Additional information : In vivo tests did not show mutagenic effects
Ames test

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

Additional information : 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)

tri-Sodium citrate dihydrate (6132-04-3)	
NOAEL, Rat, oral	1200 mg/Kg (2 years)

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

Trisodium Citrate Dihydrate Granular Trisodium Citrate Dihydrate Fine Granular Trisodium Citrate Dihydrate X-Fine Granular Trisodium Citrate Dihydrate Powder Trisodium Citrate Dihydrate CBTC30 (6132-04-3)	
Kinematic viscosity	No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

11.2.2. Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics,For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

tri-Sodium citrate dihydrate (6132-04-3)	
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
EC50 72h - Algae [1]	18000 – 32000 mg/l (Chlorella vulgaris (Fresh water algae)) 96h

12.2. Persistence and degradability

Trisodium Citrate Dihydrate Granular Trisodium Citrate Dihydrate Fine Granular Trisodium Citrate Dihydrate X-Fine Granular Trisodium Citrate Dihydrate Powder Trisodium Citrate Dihydrate CBTC30 (6132-04-3)	
Persistence and degradability	Rapidly degradable

tri-Sodium citrate dihydrate (6132-04-3)	
Persistence and degradability	Readily biodegradable.
Biodegradation	93 % - Inherently biodegradable.)- 0.125 days, 100 mg/l 90 % - Readily biodegradable - 30 days, 5 mg/l

12.3. Bioaccumulative potential

tri-Sodium citrate dihydrate (6132-04-3)	
Bioconcentration factor (BCF)	0,5
Partition coefficient n-octanol/water (Log Kow)	< 0
Bioaccumulative potential	Low potential.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Trisodium Citrate Dihydrate Granular Trisodium Citrate Dihydrate Fine Granular Trisodium Citrate Dihydrate X-Fine Granular Trisodium Citrate Dihydrate Powder Trisodium Citrate Dihydrate CBTC30 (6132-04-3)	
Results of PBT assessment	This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. 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. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Detergent Regulation (648/2004/EC): Labelling of contents

15.1.2. National regulations

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

1.1	Trade name/designation	Added	
1.1	Product code	Added	
8.2	Eye protection	Update	

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	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
	EWC = European waste catalogue
	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)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
STOT	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet : ECHA (European Chemicals Agency), Ioli, sds supplier.

Training advice : Training staff on good practice.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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