



SAFETY DATA SHEET TRISODIUM CITRATE DIHYDRATE

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

1.1. Product identifier

Product name TRISODIUM CITRATE DIHYDRATE
Product number 21396
Synonyms; trade names TRISODIUM -2- HYDROXYPROPANE 1,2,3
TRICARBOXYLATE, SODIUM CITRATE,
SODIUM CITRATE DIHYDRATE E331, TRISOD CITRATE
DIHYD 14-40M FG, TRISOD
CITRATE DIHYD 30-80 M, TRISOD CITRATE DIHYD 8-80M
FG, TRISOD CITRATE DI E331
40-100M, TRISODIUM CITRATE DIHYDRATE E331 40-80M
LT, TRISODIUM CITRATE
DIHYDRATE E331, TRISOD CITRATE DIHYD JBN, TRISOD
CITR DIH E331 30-80M,
TRISODIM 3-HYDROXY-3 CARBOXYLATE-1,5-
PENTANECARBOXYLATE, TRISODIUM
CITRATE DIHYDRATE JBN

REACH registration number 01-2119457027-40-XXXX

REACH registration notes This product is not classified as hazardous, the information in this datasheet is given for guidance only.

CAS number 6132-04-3

EC number 200-675-3

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

Identified uses Pharmaceuticals Food / Feed additive Industrial
application Cosmetics Personal Care Detergent.



1.3. Details of the supplier of the safety data sheet

Supplier Industrial Plasters Ltd
63 Netherstreet
Bromham
Chippenham
Wiltshire
SN15 2DP
+44 1380 850616
sales@industrialplasters.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)
Sds No. 21396

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Not Classified

2.2. Label elements

EC number 200-675-3
Hazard statements NC Not Classified

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.
Dust may form explosive mixture with air.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Product name TRISODIUM CITRATE DIHYDRATE

REACH registration number 01-2119457027-40-XXXX

REACH registration notes This product is not classified as hazardous, the information in this datasheet is given for guidance only.

CAS number 6132-04-3

EC number 200-675-3

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Get medical attention if symptoms are severe or persist after washing.

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

Eye contact May cause temporary eye irritation.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Dust may form explosive mixture with air.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the

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Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Avoid generation and spreading of dust. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
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6.4. Reference to other sections

Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Provide adequate ventilation. Avoid handling which leads to dust formation. Avoid inhalation of dust and contact with skin and eyes.
Advice on general occupational hygiene	Wash after use and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store at temperatures not exceeding 30°C.
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7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredients(s).

8.2. Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate ventilation. Avoid inhalation of dust.

Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

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Respiratory protection

Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Particulate filter, type P2. Particulate filters should comply with European Standard EN143.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Dusty powder. Crystalline powder.
Colour	White. to Colourless.
Odour	Odourless.
pH	pH (diluted solution): 7.5 - 9.0 @ 5%
Melting point	>150°C
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 125000 g/m ³
Relative density	1.76 - 1.86 @ °C
Bulk density	1860 kg/m ³
Solubility(ies)	400 - 700 g/l @ °C Soluble in water. Insoluble in the following materials: Ethanol.
Partition coefficient	log Pow: -1.8 - -0.2
Auto-ignition temperature	> 400°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Molecular weight	258.07
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid

Avoid excessive heat for prolonged periods of time. Avoid generation and spreading of dust.

10.5. Incompatible materials

Materials to avoid Not determined.

10.6. Hazardous decomposition products

Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.



SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 11,700.0

Species Rat

Notes (oral LD₅₀) OECD 401

ATE oral (mg/kg) 11,700.0

Acute toxicity - dermal

Notes (dermal LD₅₀) > 2000 mg/kg, Dermal, Rat

Skin corrosion/irritation

Animal data Not irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. Rabbit

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) -
Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.



Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Not applicable.

Inhalation Dust in high concentrations may irritate the respiratory system.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Skin irritation should not occur when used as recommended.

Eye contact Particles in the eyes may cause irritation and smarting.

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Acute toxicity - fish LC₅₀, 48 hours: 440 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity – aquatic invertebrates EC₅₀, 24 hours: 1535 mg/l, Daphnia magna

Acute toxicity - aquatic plants NOEC, 8 days: 425 mg/l, Freshwater algae

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Biodegradation
- Degradation 97%:
OCED 301B



12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely.
Partition coefficient log Pow: -1.8 - -0.2

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General Information Waste should be treated as controlled waste. Do not puncture or incinerate, even when empty.
Disposal methods dispose of waste to licensed waste disposal site in accordance with the requirements of the local waste disposal authority.

SECTION 14: Transport information

General the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).



14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16

December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

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Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

DSL

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

All the ingredients are listed or exempt.

Korea - KECL

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.



SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

CAS: Chemical Abstracts Service.

DNEL: Derived No Effect Level.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

Kow: Octanol-water partition coefficient.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

vPvB: Very Persistent and Very Bioaccumulative.

IARC: International Agency for Research on Cancer.

MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.

cATpE: Converted Acute Toxicity Point Estimate.

BCF: Bioconcentration Factor.

BOD: Biochemical Oxygen Demand.

EC₅₀: 50% of maximal Effective Concentration.

LOAEC: Lowest Observed Adverse Effect Concentration.

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LOAEL: Lowest Observed Adverse Effect Level.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No Observed Adverse Effect Level.

NOEC: No Observed Effect Concentration.

LOEC: Lowest Observed Effect Concentration.

DMEL: Derived Minimal Effect Level.

EL50: Exposure Limit 50

hPa: Hectopascal

LL50: Lethal Loading fifty

OECD: Organisation for Economic Co-operation and Development

POW: Octanol-water partition coefficient

SCBA: self-contained breathing apparatus

STP: Sewage Treatment Plant

VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity

Aquatic Acute = Hazardous to the aquatic environment (acute)

Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data Supplier's information.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

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