

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Product Name: Trisodium Citrate Dihydrate
CAS No.: 6132-04-3
EC No.: 200-675-3
REACH Registration No.: 01-2119457027-40-XXXX

Relevant identified uses of the substance or mixture and uses advised against:

Application of the substance/preparation:

Intermediate
Formulation
Detergents and cleaning products
Agricultural applications
Personal care products
Paper industry
Construction products
Polymers and plastics
Oil industry
Textile industry
Paints and coatings
Photography products
Laboratory reagents
Water treatment
Treatment of metal surfaces
Medical devices

Uses advised against: Not specified

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: The substance is not classified according to the CLP regulation.

Label elements: Not applicable

Other hazards:

Results of PBT and vPvB assessment:

PBT: No PBT.

vPvB: No vPvB.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical Family Name: Trisodium Citrate Dihydrate

CAS No.: 6132-04-3

EINECS No.: 200-675-3

4. FIRST AID MEASURES

Description of first aid measures:

After inhalation: Move patient to fresh air.

If symptoms persist consult a doctor.

After skin contact: Immediately rinse with water.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately. Rinse out mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Suitable extinguishing agents: Use extinguishing measures appropriate to local circumstances and the environment. CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: Carbon monoxide (CO). Carbon dioxide (CO₂).

Advice for fire-fighters:

Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information: Dispose of fire debris and contaminated fire-fighting water in accordance with official regulations.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions: Do not allow to enter sewers/ surface or ground water.
Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up: Dispose of the material collected according to official regulations.

Send for recovery or disposal in suitable receptacles.
Pick up and transfer to properly labelled containers.
After cleaning, flush away traces with water.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with the eyes and skin.
Ensure good ventilation/exhaustion at the workplace.
Provide suction extractors if dust is formed.
Do not inhale dust / smoke / mist.

Information about fire - and explosion protection: No special measures required.

Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles.
Store in cool, dry conditions in well-sealed receptacles.

Information about storage in one common storage facility: Not required.

Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Ingredients with limit values that require monitoring at the workplace: Not required.

PNECs: 0.44 mg/l (Water (Freshwater)) (Citric acid)
0.044 mg/l (Water (Marine Water)) (Citric acid)
1000 mg/l (Sewage Treatment Plant (STP)) (Citric acid)
3.46 mg/kg sedim. dw (Sediment (Marine Water)) (Citric acid)
34.6 mg/kg sedim. dw (Sediment (Freshwater)) (Citric acid)
33.1 mg/kg soil dw (Soil) (Citric acid)

Additional information: The lists valid during the making were used as basis.

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Personal protective equipment:

General protective and hygienic measures: Do not get in eyes, on skin, or on clothing.

Wash hands before breaks and at the end of work.

Do not eat, drink, smoke or sniff while working.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Hand protection: Protective gloves.

Eye protection: Safety glasses with side-shields (EN 166).

Body protection: Protective work clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:

Form: Solid. Crystalline

Colour: White.

Odour: Odourless.

Odour threshold: Not determined.

pH-value: 7.6 - 9

Melting point/freezing point: Not applicable.

Initial boiling point and boiling range: Not applicable.

Flash point: Not applicable.

Flammability (solid, gas): Product is not flammable.

Ignition temperature: Not determined.

Decomposition temperature: 150°C

Explosive properties: Product does not present an explosion hazard.

Explosion limits: **Lower:** Not determined. **Upper:** Not determined.

Oxidising properties: None.

Vapour pressure: 2.21*10⁻⁶ Pa (citric acid)

Density at 20°C: 1.86 g/cm³ (trisodium citrate pentahydrate)

Relative density: Not determined.

Vapour density: Not applicable.

Evaporation rate: Not applicable.

Solubility in / Miscibility with Water at 20°C: 400-700 g/l

Partition coefficient: n-octanol/water: -0.2 to -1.8 log POW (citric acid)

Viscosity:

Dynamic: Not applicable. Kinematic: Not applicable.

Other information: No further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability:

Thermal decomposition / conditions to be avoided: Stable at environment temperature.

Possibility of hazardous reactions: No dangerous reactions known.

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Conditions to avoid: Keep away from heat and direct sunlight.
Keep away from water/moisture, acids and bases.

Incompatible materials: Sodium nitrite, potassium nitrite.

Hazardous decomposition products: Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values: Oral LD50 5.4 g/Kg bw (Mouse) (read across from citric acid)
Dermal LD50 >2000 mg/kg (Rat) (read across from citric acid)

Primary irritant effect:

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: LC50/24h 1535 mg/L (Daphnia Magna) (read across from citric acid)
LC50/48h 440 mg/L (Fish) (OECD 203, read across from citric acid)
NOEC 425 mg/L (Algae) (read across from citric acid)

Persistence and degradability: Biodegradable.

Bioaccumulative potential: Does not accumulate in organisms.

Mobility in soil:

pKa: 3.13, 4.76 and 6.4 at 25 °C (Citric acid)

Additional environmental information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): Slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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Results of PBT and vPvB assessment:

PBT: No PBT.
vPvB: No vPvB.
Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Recommendation: Must be specially treated adhering to official regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations. Packaging that may not be cleansed must be disposed of in the same manner as the product.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment: Not required.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.