

Product Data Sheet

Trisodium Citrate Dihydrate

Version: PDS Trisodium Citrate Dihydrate Version 11	Issue date: 24/09/2024	Supersedes versions: 13/05/2024
Reason for issue: Some rounding has been adapted: - colour is shown at 1 decimal place instead of 2 - For pH, the rounding is made at 1 digit instead of 2. - For identification: EP is mentioned as requirement (Note: method has not changed!) - For RCS: FCC is mentioned - For Acidity / Alkalinity: EP is mentioned as requirement (Note: method has not changed!)		PDS 04 12503 Version 10 Trisodium Citrate Dihydrate Granular PDS 04 12325 Version 10 Trisodium Citrate Dihydrate Fine Granular PDS 04 12326 Version 10 Trisodium Citrate Dihydrate X-Fine Granular PDS 04 12481 Version 10 Trisodium Citrate Dihydrate Powder

Appearance

Trisodium Citrate Dihydrate consists of colourless crystals or a white, granular to fine powder, practically odourless, with a saline taste.

Product identification

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

Synonyms: trisodium citrate dihydrate; citric acid, trisodium salt, dihydrate; sodium citrate dihydrate

CAS No.: 6132-04-3

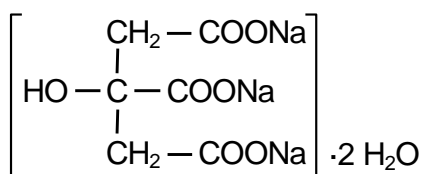
EINECS No.: 200-675-3

E No: E 331 (iii)

INCI name: Sodium citrate

Empirical formula: $C_6H_5Na_3O_7 \cdot 2H_2O$

Molecular mass: 294.10 g/mol



Specifications

Odour	odourless	Barium	< 5 ppm
Identification	meets EP requirements	Copper	< 1 ppm
Water (K. Fischer)	12.15 – 12.50 %	Zinc	< 1 ppm
Extraneous matter	passes test	Iron	< 5 ppm
pH (aqueous solution 5%)	8.0 – 8.7	Calcium	< 20 ppm
Colour (250 g/L, T at 366 nm, 1 cm)	92.0 – 100.0 %	Magnesium	< 2 ppm
Appearance of solution	meets EP requirements (visual test)	Chlorides	< 5 ppm
Clarity of solution	meets requirements	Sulphates	< 30 ppm

	(colour: %T)		
Colour of solution	meets requirements (colour: %T)	Oxalates / oxalic acid	< 10 ppm
Readily carbonizable substances RCS	Meets FCC requirements	Tartrates	< 5 ppm
Heavy metals (sum: Cd, Cr, Cu, Pb, Hg, Zn, Ni)	< 1 ppm	Assay	99.7 – 100.3 % (calculated by water content)
Arsenic	< 1 ppm	Acidity or alkalinity	Meets EP requirements
Lead	< 1 ppm	Bulk density (on request)	900 – 1100 g/l
Mercury	< 1 ppm		

Fineness MESH / (ISO standard sieves)	Product Code
Granular On No. 16 (1180 µm) max. 5% Through No. 40 (425 µm) max. 10%	04 12503
Fine Granular On No. 30 (600 µm) max. 5% Through No. 100 (150 µm) max. 5%	04 12325
X-Fine Granular On No. 30 (600 µm) max. 5% Through No. 200 (75 µm) max. 30%	04 12326
Powder On No. 60 (250 µm) max. 5% Through No. 200 (75 µm) min. 65%	04 12481

Solubility

Trisodium Citrate Dihydrate is freely soluble in water, and practically insoluble in ethanol.

Stability and storage

Trisodium Citrate Dihydrate may be stored for 36 months from the date of manufacture in the unopened original packaging (bags and big bags). A relative humidity of 50% and a temperature range of 10–30 °C are the most suitable conditions for storage.

The stacking of the Fine Granular form for long period is not recommended.

Stability tests have shown that trisodium citrate dihydrate is chemically stable for at least five years in tightly closed packaging under proper storage conditions.



Uses

- For solid and liquid food preparations.
- For personal care products.
- This product is not intended for use in the manufacture of sterile drug products. The purchaser assumes all responsibility for additional processing, testing, labelling and registration required for such use.

Compendial compliance

Trisodium Citrate Dihydrate meets all requirements of the USP, FCC, Ph. Eur., JP, JECFA and the Commission regulation (EC) No 231/2012 when tested according to the latest versions of these compendia.

Trisodium Citrate Dihydrate is classified as a GRAS (Generally Recognized As Safe) substance following the US Food and Drug Administration (FDA).

Safety

This product is safe for the intended use. Avoid inhalation of dust, contact with eyes and prolonged contact with skin by applying suitable protective measures and personal hygiene.

For full safety information and necessary precautions, please refer to the respective Material Safety Data Sheet.

Legal notice

The information given in this publication is based on our current knowledge and experience and may be used at your discretion and risk. It does not relieve you from carrying out your own precautions and tests. We do not assume any liability in connection with your product or its use. You must comply with all applicable laws and regulations and observe all third-party rights.

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