

## Product Data Sheet

## Trisodium Citrate Dihydrate

## Description

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

## Product identification

## Product codes:

Granular: 04 1250 3

Fine Granular: 04 1232 5

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

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

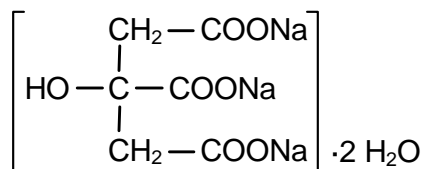
**CAS No.:** 6132-04-3

**EINECS No.:** 200-675-3

**INCI name:** sodium citrate

**Empirical formula:** C<sub>6</sub>H<sub>5</sub>Na<sub>3</sub>O<sub>7</sub> · 2 H<sub>2</sub>O

**Molecular mass:** 294.10 g/mol



## Specifications

**Appearance:** colourless crystals or white, granular powder

**Identity:** corresponds

**pH (aqueous solution 5%):** 8.0–8.7

**Water (K. Fischer):** 12.15–12.50%

**Extraneous matter:** passes test

**Heavy metals:** max. 1 ppm

**Arsenic:** max. 1 ppm

**Lead:** max. 1 ppm

**Mercury:** max. 1 ppm

**Copper:** max. 1 ppm

**Zinc:** max. 1 ppm

**Iron:** max. 5 ppm

**Barium:** max. 5 ppm

**Calcium:** max. 20 ppm

**Magnesium:** max. 2 ppm

**Chlorides:** max. 5 ppm

**Sulphates:** max. 30 ppm

**Oxalates:** max. 10 ppm

**Tartrates:** max. 5 ppm

**Acidity or alkalinity:** passes test

**Readily carbonizable substances:** passes test

**Colour (250 g/L, T at 366 nm, 1 cm):** min. 92%

**Assay:** 99.7–100.3%

**Fineness (US standard sieves):**

Granular

On	No. 16	(1190 µm)	max. 5%
Through	No. 40	(420 µm)	max. 10%

Fine Granular

On	No. 30	(595 µm)	max. 5%
Through	No. 100	(149 µm)	max. 5%

**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 container. 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 periods is not recommended.

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

**Uses**

For solid and liquid food preparations.

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.

For personal care preparations.

**Compendial compliance**

Trisodium Citrate Dihydrate meets all requirements of the USP, FCC, Ph. Eur. and JP when tested according to these compendia.

## Product Data Sheet

### 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 DSM 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.

DSM Nutritional Products Ltd  
Product Management  
Building 241/1045  
PO Box 3255  
CH-4002 Basel  
Switzerland

Tel.: +41 (0) 6168 88912

Fax: +41 (0) 6168 84729

Internet [www.dsmnutritionalproducts.com](http://www.dsmnutritionalproducts.com)