



# tri-Sodium citrate dihydrate

Meets USP 41-NF 36, EP 9.0, JP 17, BP 2016 and IP 2018 testing specifications

## Product Code: TC249M

### **Product Description :**

Molecular weight: 294.1 Molecular formula: Na<sub>3</sub>C<sub>6</sub>H<sub>5</sub>O<sub>7</sub>.2H<sub>2</sub>O CAS No.: 6132-04-3 Synonym.: Sodium citrate dihydrate

# **Quality Control:**

**Appearance (USP)** Colourless crystals or white, crystalline powder

**Appearance (EP, BP)** White or almost white crystalline powder or granular crystals, slightly deliquescent in moist air

**Appearance (JP)** Colourless crystals or a white crystalline powder

**Appearance (IP)** White granular crystals or a white, crystalline powder.

**Solubility (USP)** Very soluble in boiling water; freely soluble in water; insoluble in alcohol

**Solubility (EP, BP)** Freely soluble in water, practically insoluble in ethanol (96%)

**Solubility (JP)** It is freely soluble in water, practically insoluble in ethanol (95%) and in diethyl ether.

**Solubility (IP)** Freely soluble in water, practically insoluble in ethanol (95%) and in ether.

pH (5% in water at 25°C) (JP)

7.50 - 8.50

**Identification (JP)** Reactions for citrate and sodium salt

**Identification A (USP)** Reactions for sodium

**Identification A (EP, BP)** Reactions for citrate

**Identification A (IP)** Reaction for sodium salt and reactions for citrates.

Identification B (USP) Reactions for citrate **Identification B (EP, BP)** Reactions for sodium

**Identification C (USP)** upon ignite, it yields an alkaline residue that effervesces when treated with 3 N HCl

**Appearance of solution (EP, BP, IP)** 10% w/v solution is clear and colourless.

**Clarity and colour of solution (JP)** 10% w/v solution is clear and colourless.

Acidity or alkalinity (EP, BP) <= 0.2 mL of 0.1M HCl or 0.1M NaOH is required to change the colour of the indicator

Acidity or alkalinity (IP) <= 0.5 ml of 0.05M sulphuric acid or 0.1M NaOH is required.

**Alkalinity (USP)** No pink colour is produced by 1 drop of phenolphthalein TS.

**Arsenic (JP, IP)** <= 0.0002%

**Chloride (JP)** <= 0.015%

**Chloride (EP, BP)** <= 0.005%

**Chloride (IP)** <= 0.01%

**Tartrate (USP, JP, IP)** No crystalline precipitate is formed

Heavy metals (USP, JP, BP, IP) <= 0.001%

Oxalate (JP) The solution is clear **Oxalate (EP, BP, IP)** <= 0.03%

**Sulphate (JP)** <= 0.048%

**Sulphate (EP, BP, IP)** <= 0.015%

**Readily carbonizable substance (JP)** The solution has no more colour than Matching Fluid K

**Readily carbonizable substance (EP, BP)** The solution is not more intensely coloured than the reference solution Y2, or GY2.

**Readily carbonizable substance (IP)** The solution is not more intensely coloured than the reference solution YS2, or GYS2.

Water determination (USP) 10.00 - 13.00% (at 180°C, 18hr)

Water (K.F.) (EP, BP, IP) 11.00 - 13.00%

**Loss on drying (JP)** 10.00 - 13.00% (at 180°C, 2hr)

**Assay (NT, on dry basis) (JP)** 99.00 - 101.00%

Assay (NT, anhydrous basis) (EP, BP, IP) 99.00 - 101.00%

Assay (NT, anhydrous basis) (USP) 99.00 - 100.50%

#### **Storage and Shelf Life:**

Store below 30°C away from bright light. Shelf life is 48 months. Use before expiry date given on the product label. Revision: 03/2022

#### Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia<sup>™</sup> Publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia<sup>™</sup> Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.