Taj Agro Products®
Refreshing World

CITRIC ACID MONOHYDRATE

An Introduction

General Notices

C6H8O7,H2O 210.1 5949-29-1

Citric Acid Monohydrate complies with the requirements of the 3rd edition of the European Pharmacopoeia [0456]. These requirements are reproduced after the heading 'Definition' below. Ph Eur

Definition:

Citric acid monohydrate contains not less than 99.5 per cent and not more than the equivalent of 101.0 per cent of 2-hydroxypropane-1,2,3-tricarboxylic acid, calculated with reference to the anhydrous substance.

Characters:

A white, crystalline powder, colourless crystals or granules, efflorescent, very soluble in water, freely soluble in alcohol, sparingly soluble in ether.

Identification:

First identification: B, E.

Second identification: A, C, D, E.

A. Dissolve 1 g in 10 ml of water R. The solution is strongly acidic (2.2.4).

B. Examine by infrared absorption spectrophotometry (2.2.24), comparing with the spectrum obtained with citric acid monohydrate CRS after drying both the substance being examined and the reference substance at 100°C to 105°C for 24 h.

C. Add about 5 mg to a mixture of 1 ml of acetic anhydride R and 3 ml of pyridine R. A red colour develops.

D. Dissolve 0.5 g in 5 ml of water R, neutralise using 1M sodium hydroxide (about 7 ml), add 10 ml of calcium chloride solution R and heat to boiling. A white precipitate is formed.

E. It complies with the test for water (see Tests).

Note :- Rate of the products Mention in the Website will be verified by day to day fluctuation in the Indian Agro Market Actual Rate of the Products will be provide at the time of final Confirmation of Order

Tests:

APPEARANCE OF SOLUTION: Dissolve 2.0 g in water R and dilute to 10 ml with the same solvent. The solution is clear (2.2.1) and not more intensely coloured than reference solution Y7, BY7 or GY7 (Method II, 2.2.2).

READILY CARBONISABLE SUBSTANCES: To 1.0 g in a cleaned test tube add 10 ml of sulphuric acid R and immediately heat the mixture in a water-bath at 90±1°C for 60 min. Immediately cool rapidly. The solution is not more intensely coloured than a mixture of 1 ml of red primary solution and 9 ml of yellow primary solution (Method I, 2.2.2).

OXALIC ACID: Dissolve 0.80 g in 4 ml of water R. Add 3 ml of hydrochloric acid R and 1 g of zinc R in granules. Boil for 1 min. Allow to stand for 2 min. Transfer the supernatant liquid to a test-tube containing 0.25 ml of a 10 g/l solution of phenylhydrazine hydrochloride R and heat to boiling. Cool rapidly, transfer to a graduated cylinder and add an equal volume of hydrochloric acid R and 0.25 ml of a 50 g/l solution of potassium ferricyanide R. Shake and allow to stand for 30 min. Any pink colour in the solution is not more intense than that in a standard prepared at the same time in the same manner using 4 ml of a 0.1 g/l solution of oxalic acid R (350 ppm, calculated as anhydrous oxalic acid).

SULPHATES (2.4.13): Dissolve 1.0 g in distilled water R and dilute to 15 ml with the same solvent. The solution complies with the limit test for sulphates (150 ppm).

ALUMINIUM (2.4.17): If intended for use in the manufacture of dialysis solutions, it complies with the test for aluminium. Dissolve 20 g in 100 ml of water R and add 10 ml of acetate buffer solution pH 6.0 R. The solution complies with the limit test for aluminium (0.2 ppm). Use as the reference solution a mixture of 2 ml of aluminium standard solution (2 ppm Al) R, 10 ml of acetate buffer solution pH 6.0 R and 98 ml of water R. To prepare the blank use a mixture of 10 ml of acetate buffer solution pH 6.0 R and 100 ml of water R.

HEAVY METALS (2.4.8): Dissolve 5.0 g in several portions in 39 ml of dilute sodium hydroxide solution R and dilute to 50 ml with distilled water R. 12 ml complies with limit test A for heavy metals (10 ppm). Prepare the standard using lead standard solution (1 ppm Pb) R.

WATER (2.5.12): 7.5 per cent to 9.0 per cent, determined on 0.500 g by the semi-micro determination of water.

SULPHATED ASH (2.4.14): Not more than 0.1 per cent, determined on 1.0 g.

BACTERIAL ENDOTOXINS (2.6.14): If intended for use in the manufacture of parenteral dosage forms without a further appropriate procedure for the removal of bacterial endotoxins, not more than 0.5 I.U. of endotoxin per milligram.

Assay:

Dissolve 0.550 g in 50 ml of water R. Titrate with 1M sodium hydroxide, using 0.5 ml of phenolphthalein solution R as indicator. 1 ml of 1M sodium hydroxide is equivalent to 64.03 mg of $C_6H_8O_7$.

Storage:

Store in an airtight container.

Labelling:

The label states

- where applicable, that the substance is free from bacterial endotoxins,
- where applicable, that the substance is intended for use in the manufacture of dialysis solutions.

Main Uses :

*Imparts fine tangy flavour and sequesters heavy metal ions in soft drinks.
*Preserves flavour, appearance and consistency in canned fruits and vegetables.
*Enhances flavour of fruits, promotes sucrose inversion in candies.
*Acts as a synergist to antioxidants due to complexation of heavy metal ions.
*Helps to create the bubbling and fizzing effect in effervescent tablets. Used in various creams, ointments and shampoos.

Packaging :

25 Kg Polyethylene-lined multi-wall paper bags
CITRIC ACID ANHYDROUS (FCC / USP)

Description :

Citric Acid Anhydrous is available as free flowing, translucent white crystals/granules, practically odourless with slighty hygroscopic and tart acidic taste. Citric Acid is a widely used and environment-friendly acidulant.

GENERAL CHARACTERISTICS

*Formula : C6 H8 O7
*Molecular weight : 192.13
*Appearance : White Crystals
*Taste : Tart acid Taste
*Odour : Practically Odourless
*CAS No :. 77 - 92 - 9
*Specific Gravity : 1.665
*Melting Point : 153o C
*PH of 0.1 N solution : 2.2
*Solubility @ 25oC in : In water - 162 gm/100 ml water
In alcohol - 59 gm/100ml alcohol
In ether - 0.75 gm/100ml ether

STANDARD SPECIFICATIONS

*Standards : BIS / USP XXIII / BP 93 / DAB / FCC / IP
*Identification : Positive for Citrates
*Assay : 99.5 - 100.5 %
*Water (Anhydrous basis) : Max 0.5 %
*Residue on Ignition : Max. 0.05 %
*Oxalate - Meets USP / FCC Tests
*Sulfate - Meets USP tests
*Arsenic (as As) - Max 1. ppm.
*Heavy metals (As Pb) - Max. 5 ppm.
*Readily Carbonizable Substances - Meets USP / FCC tests
*Lead - Max. 0.5 ppm

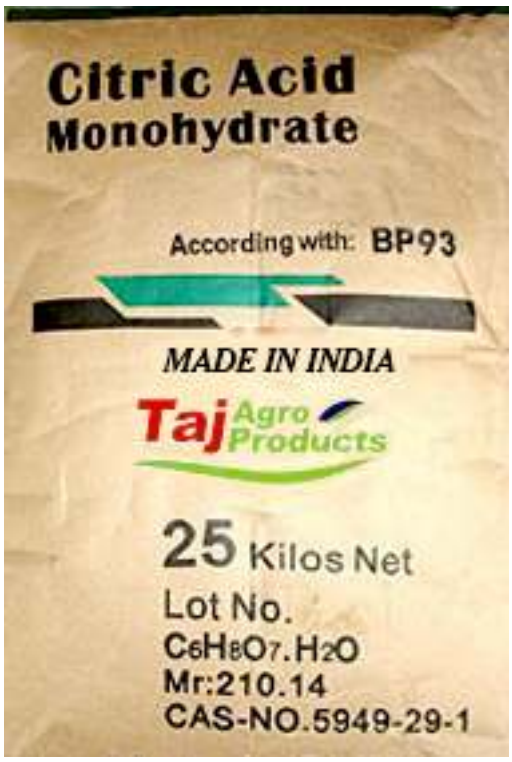
Main Uses :
*Imparts fine tangy flavour and sequesters heavy metal ions in soft drinks.
*Preserves flavour, appearance and consistency in canned fruits and vegetables.
*Enhances flavour of fruits, promotes sucrose inversion in candies.
*Acts as a synergist to antioxidants due to complexation of heavy metal ions.
*Helps to create the bubbling and fizzing effect in effervescent tablets. Used in various creams, ointments and shampoos.

Packaging :

25 Kg Polyethylene-lined multi-wall paper bags

Storage Recommendations :

Store in a cool and dry place to prevent caking.



Contact Us

Contact information for Taj Group companies in India.

TAJ AGRO INTERNATIONAL
(A Division of Taj Pharmaceuticals Limited)
http://www.tajagroproducts.com
E-mail :
tajagroproducts@gmail.com
tajagrointernational@gmail.com