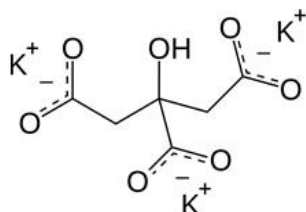




Potassium Citrate



Description

Potassium Citrate is used as a pharmaceutical aid in veterinary practice. It is also used in many pharmacopoeia and other preparations like potassium hydroxide solution, Cresol solution, Soap solution etc. It works as a buffer for juices like real, R-cola

Specifications (USP)

TESTS	SPECIFICATIONS
Description	Transparent crystals or white granular powder; odorless saline taste, and is deliquescent when exposed to moist air.
Solubility	Freely soluble in water. Almost insoluble in alcohol.
Identification	(A) A solution (1 in 20) responds to the test for Potassium and for citrate. Potassium: White crystalline precipitate that is soluble in 6N ammonium hydroxide. Citrate: A light red color is produced.
Alkalinity	No pink color is produced by 1 drop of phenolphthalein TS.
Loss on drying	Between 3.0% and 6.0%. Dry it at 180 ^o for 4 hours.
Tartrate	No precipitate is formed.
Heavy metals	Not more than 0.001%.
Assay	99.0 % to 100.5 % (On dried basis)



Specifications (BP)

TESTS	SPECIFICATIONS
Appearance	White or almost white, granular powder or transparent crystals, hygroscopic.
Solubility	Very soluble in water, practically insoluble in ethanol (96%).
<u>Identification</u>	A) Violet colour, turning to violet-blue is produced.
(A) Citrates	B) A white precipitate is produced which is soluble in 6M acetic acid.
(B) Potassium	B) A yellow or orange-yellow precipitate is produced immediately.
Appearance of solution	Solution S is clear and colourless.
Acidity or alkalinity	Not more than 0.2 ml of 0.1M hydrochloric acid or 0.1M Sodium Hydroxide is required to change the colour of the solution.
Readily carbonisable Substances	The solution is not more intensely coloured than reference solution Y ₂ or GY ₂
Chloride	Not more than 50 ppm
Oxalate	Not more than 300 ppm (calculated as anhydrous oxalic acid).
Sulphate	Not more than 150 ppm
Heavy metals	Not more than 10 ppm
Sodium	Not more than 0.3 %
Water	4.0 to 7.0 per cent, determined on 0.250 g.
Assay	99.0 % to 101.0 % (On Anhydrous Basis)



Specifications (IP)

TESTS	SPECIFICATIONS
Description	White granular crystals or a white crystalline powder; odourless; hygroscopic.
Solubility	Very soluble in water; soluble in glycerin; practically insoluble in ethanol (95%).
<u>Identification</u>	
(A) Potassium Salts	<p>A) A yellow or orange-yellow precipitate is produced.</p> <p>B) A white crystalline precipitate is produced.</p> <p>C) A yellow crystalline precipitate is produced which on ignition leaves a residue of kcl and platinum.</p>
(B) Citrates	<p>A) A white precipitate soluble in 6M acetic acid is produced.</p> <p>B) A violet colour which turns violet-blue is produced.</p>
Appearance of solution	Solution A is clear and colourless.
Acidity or alkalinity	Not more than 0.2 ml of 0.1M hydrochloric acid or 0.1M sodium Hydroxide is required to change the colour of the solution.
Arsenic	Not more than 2 ppm
Heavy metals	Not more than 10 ppm
Sodium	Not more than 0.3 %
Chloride	Not more than 100 ppm
Oxalate	Not more than 300 ppm (calculated as anhydrous oxalic acid).
Sulphate	Not more than 150 ppm
Readily carbonisable Substances	The solution is not more intensely coloured than reference solution YS ₂ or GYS ₂
Water	4.0 to 7.0 per cent, determined on 0.5 g.
Assay	99.0 % to 101.0 % (On Anhydrous Basis)

Application and Effects

Potassium Citrate is mainly used for making solutions in the Pharmaceutical Industry which helps to make parenteral nutrition (the liquid used for making the Injections)