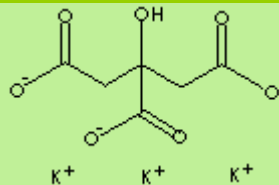


POTASSIUM CITRATE

PRODUCT IDENTIFICATION

CAS NO. 866-84-2 (Anhydrous)
6100-05-6 (Monohydrate)
EINECS NO. 212-755-5
FORMULA $\text{HOC}(\text{COOK})(\text{CH}_2\text{COOK})_2 \cdot \text{H}_2\text{O}$
MOL WT. 324.42



H.S. CODE

TOXICITY

SYNONYMS Tripotassium citrate; Citric acid potassium salt

2-hydroxy-1,2,3-Propanetricarboxylic acid, tripotassium salt; Potassium citrate tribasic monohydrate; Potassium citrate tribasic preparation; Tripotassium citrate monohydrate; Tripotassium citrate monohydrate;

DERIVATION

CLASSIFICATION

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE white crystalline powder
MELTING POINT 180 C
BOILING POINT 235 C
SPECIFIC GRAVITY 1.98
SOLUBILITY IN WATER soluble
pH 7.5 - 9.0 (10% sol.)
VAPOR DENSITY
AUTOIGNITION 440 C
NFPA RATINGS Health: 1; Flammability: 0; Reactivity: 0
REFRACTIVE INDEX
FLASH POINT
STABILITY Stable under ordinary conditions

APPLICATIONS

Acidity regulator in food; Firming agent. Sequestering and stabilizing agent, antioxidants synergist, Potassium enrichment in foods and medicine. (potassium citrate replaces sodium citrate where low sodium content is required)

SALES SPECIFICATION

USP/BP

APPEARANCE white crystalline powder
CONTENT 99.0 - 100.5% (Anhydrous basis)
OXALATE Pass
SULFATE 0.15% max
LOSS ON DRYING 3.0 - 6.0%
CHLORIDE 350ppm max
HEAVEY METALS 20ppmmax
ARSENIC 2ppm max

TRANSPORTATION

PACKING 25kgs in fiber drum

HAZARD CLASS

UN NO.

GENERAL DESCRIPTION OF CITRIC ACID

Citric Acid (2-Hydroxy-1,2,3-propanetricarboxylic acid, in IUPAC naming) is a colourless crystalline organic compound belong to carboxylic acid family. It exists in all plants (especially in lemons and limes) and in many animal tissues and fluids. In biochemistry, it is involved in important metabolism of almost all living things; the Krebs cycle (also called citric acid cycle or tricarboxylic acid cycle), a part of the process by which animals convert food to energy. Citric acid works as a preservative (or as an antioxidant) and cleaning agent in nature. It is commercially obtained by fermentation process of glucose with the aid of the mold *Aspergillus niger* and can be obtained synthetically from acetone or glycerol. It can be used as an sour taste enhancer in foods and soft drinks. The three carboxy groups lose protons in solution; resulting in the excellent pH control as a buffer in acidic solutions. It is used as a flavouring, stabilizing agent and acidulant (to control acidity) in food industry, in metal-cleaning compositions as it chelates metals. Citric acid is available in forms of anhydrous primarily and in monohydrate, the crystallized form from water. The hydrated form will be converted to the anhydrous form above 74 C. Citrate is a salt or ester of citric acid. Citrates are formed by replacing the acidic one, two, or all three of the carboxylic hydrogens in citric acid by metals or organic radicals to produce an extensive series of salts, esters, and mixed (double) salts. Citrates are used in food, cosmetics, pharmaceutical and medicine industries as well as in plastic industry; nutrient or food additives having functions of acidity regulator, sequestering and stabilizing agent, antioxidants synergist, firming agent; anticoagulant for stored whole blood and red cells and also for blood specimens as citrates chelate metal ions and saline cathartics, effervescent medicines; high boiling solvent, plasticizer and resin for food contact plastics.