

## POTASSIUM DIHYDROGEN CITRATE

*Prepared at the 31st JECFA (1987), published in FNP 38 (1988) and in FNP 52 (1992). Metals and arsenic specifications revised at the 59th JECFA (2002). Group ADI 'not limited' for citric acid and its salts was established at the 23rd JECFA (1979)*

### SYNONYMS

Monopotassium citrate, potassium citrate monobasic; INS No. 332(i)

### DEFINITION

Chemical names

Potassium dihydrogen citrate, monopotassium salt of 2-hydroxy-propan-1,2,3-tricarboxylic acid

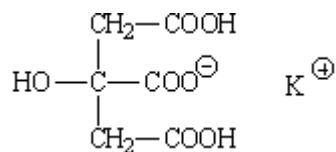
C.A.S. number

866-83-1

Chemical formula

C<sub>6</sub>H<sub>7</sub>KO<sub>7</sub>

Structural formula



Formula weight

230.21

Assay

Not less than 99.0% and not more than the equivalent of 101.0% on the dried basis

### DESCRIPTION

Odourless, transparent crystals or white powder

**FUNCTIONAL USES** Buffering agent, sequestrant, yeast food

### CHARACTERISTICS

#### IDENTIFICATION

Solubility (Vol. 4)

Freely soluble in water; very slightly soluble in ethanol

pH (Vol. 4)

3.5 - 3.9 (1 in 10 soln)

Test for citrate (Vol. 4)

Passes test

Test for potassium  
(Vol. 4)

Passes test

#### PURITY

Loss on drying (Vol. 4)

Not more than 0.5% (105°, 4 h)

Oxalate (Vol. 4)

Not more than 0.04%

Lead (Vol. 4)

Not more than 2 mg/kg

Determine using an atomic absorption technique appropriate to the specified level. The selection of sample size and method of sample preparation may be based on the principles of the method described in Volume 4, "Instrumental Methods."

**METHOD OF  
ASSAY**

Dissolve about 180 mg of the dried sample, accurately weighed in 25 ml of water and titrate with 0.1 N sodium hydroxide (potentiometric end-point determination). Each ml of 0.1 N sodium hydroxide is equivalent to 11.511 mg of  $C_6H_7KO_7$ .