POTASSIUM CARBONATE

Prepared at the 19th JECFA (1975), published in NMRS 55B (1976) and in FNP 52 (1992). Metals and arsenic specifications revised at the 59th JECFA (2002). An ADI 'not limited' was established at the 9th JECFA (1965).

SYNONYMS INS No. 501 (i)

DEFINITION

Chemical names	Potassium carbonate, potassium salt of carbonic acid
C.A.S. number	584-08-7
Chemical formula	Anhydrous: K_2CO_3 Hydrated: $K_2CO_3 \cdot 1½H_2O$
Formula weight	138.21 (anhydrous)
Assay	Not less than 99.0% after drying

DESCRIPTION White, odourless, very deliquescent powder; the hydrated form occurs as small, white, translucent crystals or granules

FUNCTIONAL USES Alkali

CHARACTERISTICS

IDENTIFICATION

Solubility (Vol. 4)	Very soluble in water; insoluble in ethanol
Test for potassium (Vol. 4)	Passes test
Test for carbonate (Vol. 4)	Passes test

PURITY

Loss on drying (Vol. 4)	Anhydrous: Not more than 5% (180^o, 4 h) Hydrated forms: Between 10% and 18% (180^o, 4 h)
Lead (Vol. 4)	Not more2mg/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

Weigh accurately about 1 g of the dried sample. Dissolve carefully in 50 ml of 1 N sulfuric acid, add methyl orange TS and titrate the excess acid with 1 N sodium hydroxide. Each ml of 1 N sulfuric acid is equivalent to 69.11 mg of K_2CO_3.