

POTASSIUM HYDROGEN 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

Potassium bicarbonate; INS No. 501(ii)

DEFINITION

Chemical names

Potassium hydrogen carbonate, potassium acid carbonate

C.A.S. number

298-14-6

Chemical formula

KHCO_3

Formula weight

100.11

Assay

Not less than 99.0% and not more than 101% calculated on the dried basis

DESCRIPTION

Odourless, colourless crystals or white powder or granules

FUNCTIONAL USES Alkali, leavening agent, buffer

CHARACTERISTICS

IDENTIFICATION

Solubility (Vol. 4)

Freely 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)

Not more than 0.25% (over silica gel, 4 h)

Normal carbonate

Dissolve 1 g of the sample without agitation in 20 ml of water at a temperature not above 5°. Add 2 ml of 0.1 N hydrochloric acid and 2 drops of phenolphthalein TS and observe immediately. The colour of the solution is not deeper than a faint pink.

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 4 g of the sample, accurately weighed, in 25 ml of water, add methylorange TS and titrate with 1 N sulfuric acid. Each ml of 1 N sulfuric acid is equivalent to 100.1 mg of KHCO_3 .

