POTASSIUM ACETATE

*Prepared at the 18th JECFA (1974), published in NMRS 54B (1975)
and in FNP 52 (1992). Metals and arsenic specifications revised at the
63rd JECFA (2004). A group ADI 'Not limited' for acetic acid and its K &
Na salts was established at the 17th JECFA (1973).*

SYNONYMS   INS No. 261(i)

DEFINITION

Chemical names   Potassium acetate

C.A.S. number   127-08-2

Chemical formula $C_2H_3KO_2$

Structural formula CH_3-COOK

Formula weight   98.14

Assay   Not less than 99.0% after drying

DESCRIPTION   Colourless, deliquescent crystals or a white, crystalline powder,
                      odourless or with a faint acetic odour

FUNCTIONAL USES   Buffer, antimicrobial preservative

CHARACTERISTICS

IDENTIFICATION

Solubility (Vol. 4)   Very soluble in water; freely soluble in ethanol

pH (Vol. 4)   7.5 - 9.0 (1 in 20 soln)

Test for potassium   Passes test
(Vol. 4)

Test for acetate (Vol. 4)   Passes test

PURITY

Loss on drying (Vol. 4)   Not more than 8.0% (150°, 2 h)

Alkalinity   Dissolve 1 g of the sample in 20 ml of freshly boiled and cooled water,
                      and add 3 drops of phenolphthalein TS. If a pink colour is produced, not
                      more than 0.5 ml of 0.1 N hydrochloric acid should be required to
                      discharge it.

<u>Test for sodium</u> (Vol. 4)   Negative test

<u>Lead</u> (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 200 mg of the dried sample, accurately weighed, in 25 ml of glacial acetic acid. Add 2 drops of crystal violet TS, and titrate with 0.1 N perchloric acid in glacial acetic acid. Perform a blank determination, and make any necessary correction. Each ml of 0.1 N perchloric acid is equivalent to 9.814 mg of $C_2H_3KO_2$