

SODIUM ASCORBATE

Prepared at the 17th JECFA (1973), published in FNP 4 (1978) and in FNP 52 (1992). Metals and arsenic specifications revised at the 61st JECFA (2003). A group ADI 'not specified' was established for ascorbic acid and its Ca, K and Na salts at the 25th JECFA (1981).

SYNONYMS INS No. 301

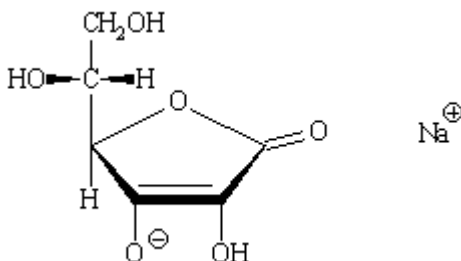
DEFINITION

Chemical names Sodium ascorbate, sodium L-ascorbate, 2,3-didehydro-L-threo-hexono-1,4-lactone sodium enolate; 3-keto-L-gulofurano-lactone sodium enolate

C.A.S. number 134-03-2

Chemical formula $C_6H_7O_6Na$

Structural formula



Formula weight 198.11

Assay White or almost white, odourless crystalline powder which darkens on exposure to light

DESCRIPTION Not less than 99% after drying

FUNCTIONAL USES Antioxidant

CHARACTERISTICS

IDENTIFICATION

Solubility (Vol. 4) Freely soluble in water; very slightly soluble in ethanol
See description under TESTS

Test for ascorbate
Vol. 4) Passes test

Test for sodium (Vol. 4) Passes test
Test a solution of previously ignited sample, acidified with dilute acetic acid TS, filtered if necessary

Reducing reaction A solution of the sample will decolourize a solution of 2,6-dichloro-phenolindophenol TS

PURITY

Loss on drying (Vol. 4) Not more than 0.25% (vacuum desiccator over sulfuric acid, 24 h)

pH (Vol. 4) 6.5 - 8.0 (1 in 10 soln)

Specific rotation (Vol. 4) [alpha] 25,D: Between +103° and +108° (10% (w/v) aqueous solution)

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 0.400 g of the dried sample in a mixture of 100 ml of carbon dioxide-free water and 25 ml of dilute sulphuric acid TS. Titrate the solution at once with 0.1 N iodine, adding a few drops of starch TS as indicator as the end-point is approached. Each ml of 0.1 N iodine is equivalent to 9.905 mg of C₆H₇O₆Na.