

ETHYL MALTOL

(TENTATIVE)

Revised tentative specifications prepared at the 65th JECFA (2005) and published in FNP 52 Add 13 (2006), superseding specifications prepared at the 14th JECFA (1970) and published in NMRS 48B (1971) and in FNP 52 (1992), and incorporating the decisions on metals and arsenic specifications agreed at the 57th JECFA (2001) and published in FNP 52 Add 9 (2001). An ADI of 0-2 mg/kg bw was established at the 18th JECFA (1974)

Information on functional uses and method of assay required

SYNONYMS

INS No. 637

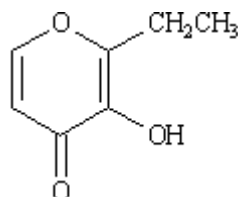
DEFINITION

Chemical names 2-Ethyl-3-hydroxy-4-pyrone

C.A.S. number 4940-11-8

Chemical formula $C_7H_8O_3$

Structural formula



Formula weight 140.14

Assay Not less than 98%

DESCRIPTION

White, crystalline powder having a characteristic odour

FUNCTIONAL USES

Flavour enhancer, stabilizer, flavouring agent (See 'Flavouring agents' monograph No. 1481)

CHARACTERISTICS

IDENTIFICATION

Solubility (Vol. 4) Sparingly soluble in water; soluble in alcohol

Melting range (Vol. 4) 89 - 93°

PURITY

Water (Vol. 4) Not more than 0.5 % w/w (Karl Fischer Method)

Sulfated ash (Vol. 4) Not more than 0.2 % w/w

Lead (Vol. 4) Not more than 1mg/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 methods described in Volume 4, "Instrumental Methods".

METHOD OF ASSAY Prepare a solution of ethyl maltol in 0.1 N hydrochloric acid containing 10 µg/ml, and determine the extinction at 276 nm. E (1%, 1 cm): 276 nm: 655-675

Calculation

Ethyl maltol (%) = 100 x E(sample)/E(standard)

where

E = E (1%, 1 cm)