

AMARANTH

Prepared at the 28th JECFA (1984), published in FNP 31/1 (1984) and in FNP 52 (1992). Metals and arsenic specifications revised at the 59th JECFA (2002). An ADI of 0-0.5 mg/kg bw was established at the 28th JECFA (1984)

SYNONYMS

CI Food Red 9; Naphtol Rot S., CI (1975) No. 16185, INS No. 123

DEFINITION

Consists essentially of trisodium 3-hydroxy-4-(4-sulfonato-1-naphthylazo)-2,7-naphthalenedisulfonate and subsidiary colouring matters together with sodium chloride and/or sodium sulfate as the principal uncoloured components.

May be converted to the corresponding aluminium lake in which case only the *General Specifications for Aluminium Lakes of Colouring Matters* shall apply.

C.A.S number

915-67-3

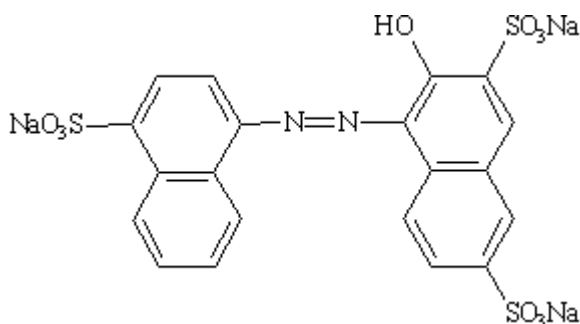
Chemical names

Trisodium 3-hydroxy-4-(4-sulfonato-1-naphthylazo)-2,7-naphthalene disulfonate

Chemical formula

$C_{20}H_{11}N_2Na_3O_{10}S_3$

Structural formula



Formula weight

604.48

Assay

Not less than 85% total colouring matters

DESCRIPTION

Reddish brown to dark reddish brown powder or granules

FUNCTIONAL USES

Colour

CHARACTERISTICS

IDENTIFICATION

Solubility

Soluble in water, sparingly soluble in ethanol

Identification of colouring matters
(Vol. 4)

Passes tests

PURITY

Loss on drying (Vol. 4) Not more than 15% at 135° together with chloride and sulfate calculated as sodium salts

Water insoluble matter (Vol. 4) Not more than 0.2%

Lead (Vol. 4) Not more than 2 mg/kg

Subsidiary colouring matters (Vol. 4) Not more than 3%
Use the following conditions:
Developing solvent: No. 3
Height of ascent of solvent front: 17 cm, then 1 h further development

Organic compounds other than colouring matters (Vol. 4) Not more than 0.5% of sum of 4-amino-1-naphthalenesulfonic acid, 3-hydroxy-2,7-naphthalenedisulfonic acid, 6-hydroxy-2-naphthalenesulfonic acid, 7-hydroxy-1,3-naphthalenedisulfonic acid and 7-hydroxy-1,3,6-naphthalene-trisulfonic acid:
Use *HPLC* with elution gradient: 2 to 100% at 4.0% per min (linear)

Un sulfonated primary aromatic amines (Vol. 4) Not more than 0.01% calculated as aniline

Ether extractable matter (Vol. 4) Not more than 0.2%

METHOD OF ASSAY Proceed as directed under *Total Content by Titration with Titanous Chloride* in Volume 4, using the following:
Weight of sample: 0.7 - 0.8 g
Buffer: 10 g sodium citrate
Calculation: Weight (D) of colouring matters equivalent to 1.00 ml of 0.1 N TiCl_3 : 15.11 mg