

## FAST RED E

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). No ADI was allocated at the 21st JECFA (1977)

### SYNONYMS

CI Food Red 4, CI (1975) No. 16045

### DEFINITION

Consists essentially of disodium 2-hydroxy-1-(4-sulfonato-1-naphthylazo) naphthalene-6-sulfonate 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.

### Chemical names

Disodium 2-hydroxy-1-(4-sulfonato-1-naphthylazo)-6-naphthalene-sulfonate

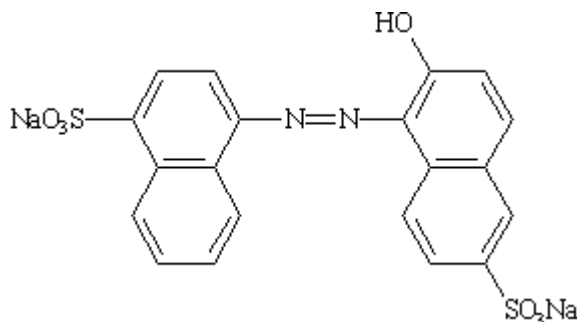
### C.A.S. number

2302-96-7

### Chemical formula

$C_{20}H_{12}N_2Na_2O_7S_2$

### Structural formula



### Formula weight

502.44

### Assay

Not less than 85% total colouring matters

### DESCRIPTION

Red-brown powder or granules

### FUNCTIONAL USES

Colour

### CHARACTERISTICS

#### IDENTIFICATION

Solubility (Vol. 4)  
Identification of colouring matters (Vol. 4)

Soluble in water; sparingly soluble in ethanol  
Passes Test

#### PURITY

<u>Loss on drying at 135°</u> (Vol. 4)	Not more than 15% together with chloride and sulfate calculated as sodium salts
<u>Water insoluble matter</u> (Vol. 4)	Not more than 0.2%
<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."
<u>Subsidiary colouring matters</u> (Vol. 4)	Not more than 3% Proceed as directed under <i>Column Chromatography</i> using the following conditions: Developing solvent: No. 3 Height of ascent of solvent front: approximately 12 cm
<u>Organic compounds other than colouring matters</u> (Vol. 4)	Not more than 0.3%, sum of 4-Aminonaphthalene-2,7-sulfonic acid, 6-Hydroxynaphthalene-2-sulfonic acid and 6,6'-Oxydi(naphthalene-2-sulfonic acid) Proceed as directed under <i>Column Chromatography</i>
<u>Un sulfonated primary aromatic amines</u> (Vol. 4)	Not more than 0.01% calculated as aniline
<u>Ether extractable matter</u> (Vol. 4)	Not more than 0.2%

**METHOD OF ASSAY**

Proceed as directed under *Total Content by Titration with Titanous Chloride* (see Volume 4), using the following:  
 Weight of sample: 0.5-0.6 g  
 Buffer: 15 g sodium hydrogen tartrate  
 Weight: (D) of colouring matters equivalent to 1.00 ml of 0.1 N TiCl<sub>3</sub>: 12.56 mg