

## 94175 Tartrazine, Azo Dye

E-Number: E 102  
C.I. No.: 19140  
CAS No.: 1934-21-0

### Properties:

Tartrazine is a yellow azo dye which is soluble in water. The color fastness of this dye is good in acidic media, under light influence and at high temperatures.

### Preparation:

Like all azo dyes, tartrazine is prepared synthetically. For this purpose, 4-aminobenzol-sulfonic acid is diazotized and coupled with 1-(4-sulfophenyl)-5-pyrazoln-3-carboxylic acid.

### Application:

Products including tartrazine commonly include confectionary, soft drinks, instant puddings, instant soups, certain fruit squash, fruit cordial, biscuits and many convenience foods.

Tartrazine is also used in soaps, shampoos and other hair products, moisturisers, crayons and stamp dyes.

Tartrazine is often replaced by a mixture of Quinoline Yellow (E 104) and Sunset Yellow (E 110).

### Safety

Tartrazine appears to cause the most allergic and intolerance reactions of all the azo dyes, particularly among asthmatics and those with an aspirin intolerance.<sup>[1]</sup>

Because of the problem of tartrazine intolerance, the United States requires the presence of tartrazine to be declared on food and drug products (21 CFR 74.1705, 21 CFR 201.20) and also the color batch used to be approved by the FDA.<sup>[2]</sup>

### Specification:

Appearance	Light orange powder or granules
Pure dye content	85 – 100 %
Water insoluble matter	max. 0.20 %
Subsidiary coloring mater	max. 1.00 %
Un sulfonated aromatic amines	max. 0.01 %
Ether extractable matter	max. 0.20 %
Quality	Complies with the purity standard according regulation No. 2012/231/EC as well as the regulation 2008/1333/EC

[1] „E 102 Tartrazine, FD&C Yellow No.5“ (<http://www.ukfoodguide.net/e102.htm>). UK Food Guide. Retrieved 2007-11-30.

[2] “Does FD&C Yellow No. 5 cause any allergic reactions?” (<http://web.archive.org/web/20071009232307/http://www.cfsan.fda.gov/~dms/qu-adf5-html>). Retrieved 2007-10-20.