

The Southampton six colours

From the sweeties.net wiki

The Southampton six are six synthetic food colours that were tested together in a study commissioned by the UK Food Standards Agency and carried out by researchers at the University of Southampton. The study, published in 2007, tested a mixture of the colours along with the preservative sodium benzoate: see [why do some sweets have a warning about children?](#)

The six, one by one

| E number | Name | Colour | In the United States | |---|---|---|---| | E102 | Tartrazine | Lemon yellow | Used, as FD&C Yellow 5, with batch certification | | E104 | Quinoline yellow | Greenish yellow | Not a permitted food additive | | E110 | Sunset yellow | Orange | Permitted, as FD&C Yellow 6 | | E122 | Carmoisine, or azorubine | Red | Not listed; delisted in 1963 | | E124 | Ponceau 4R | Strawberry red | Not approved for human consumption | | E129 | Allura red | Red | Permitted, as FD&C Red 40 |

A few notes on individual colours:

- **Tartrazine** can be mixed with blue colours to make greens. According to the US Food and Drug Administration, it causes hives in fewer than 1 in 10,000 people.
- **Quinoline yellow** is permitted in the EU and Australia but not as a food additive in Canada or the United States, where it is allowed in medicines and cosmetics.
- **Carmoisine** was listed in the United States in 1939 for drugs and cosmetics applied to the skin, and delisted in 1963.
- **Allura red** was introduced in the United States as a replacement for another red, amaranth.

The warning

Under Article 24 and Annex V of Regulation 1333/2008, food containing any of the six must show the colour's name or E number along with the warning that it may have an adverse effect on activity and attention in children. The same rule applies in the UK.

What the regulators concluded

The European Food Safety Authority reviewed the evidence and in 2009 concluded that the available science did not substantiate a link between the colours and behavioural effects. On the basis of other evidence, it lowered the acceptable daily intake for some of them, such as quinoline yellow, which fell from 10 to 0.5 mg per kg. The UK Food Standards Agency called for voluntary removal of the colours, and the US Food and Drug Administration made no changes after the study.

Choosing sweets without them

Sweets can be coloured with plant and algae colours instead, such as spirulina, black carrot, curcumin and paprika: see [natural colours in sweets](#) To check a sweet, look for the six E numbers or names in the ingredients, or the warning itself: see [how to read a sweet label](#)

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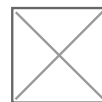
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