



FOOD COLOURS

Workshop on Genetically Modified Organism and Food Additives

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EU FOOD COLOUR REGULATIONS



- EU has 35 permitted food colours
- They have E-codes E100 – E180
- The number of permitted food colours has not increased from 1994
- Maximum permitted levels are 10 mg/kg – 500 mg/kg

Specific conditions for colours Regulation 1333/2008

Food colours may be used to:

- To restore the original appearance of food**
 - Making food visually appealing**
 - Giving colour to food otherwise colorless**
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**Foodstuffs, which may not contain added colours,
examples:**

- unprocessed foodstuffs
- all bottled water
- milk
- oils and fats of animal or vegetable origin
- bread and similar products
- pasta
- fruit juice
- fish
- foods for infants
- honey

Colours permitted for use in all food categories at quantum satis

| E number | Food colour |
|-----------------|---|
| E 101 | (i) Riboflavin (ii) Riboflavin-5'-phosphate |
| E 140 | Chlorophylls and Chlorophyllins |
| E 141 | Copper complexes of Chlorophylls and Chlorophyllins |
| E 150a | Plain caramel |
| E 150b | Caustic sulphite caramel |
| E 150c | Ammonia caramel |
| E 150d | Sulphite ammonia caramel |
| E 153 | Vegetable carbon |
| E 160a | Carotenes |
| E 160c | Paprika extract, Capsanthin, Capsorubin |
| E 162 | Beetroot Red,, Betanin |
| E 163 | Anthocyanins |
| E 170 | Calcium carbonate |
| E 171 | Titanium dioxide |
| E 172 | Iron oxides and hydroxides |

Colours allowed up to a maximum level in a specified number of foodstuffs:

| E number | Food colour |
|-----------------|---|
| E 100 | Curcumin |
| E 102 | Tartrazine |
| E 104 | Quinoline Yellow |
| E 110 | Sunset Yellow FCF, Orange Yellow S |
| E 120 | Cochineal, Carminic acid, Carmines |
| E 122 | Azorubine, Carmoisine |
| E 124 | Ponceau 4R., Cochineal Red A |
| E 129 | AlluraRedAC |
| E 131 | Patent Blue V |
| E 132 | Indigotine, Indigo carmine |
| E 133 | Brilliant Blue FCF |
| E 142 | Green S |
| E 151 | Brilliant Black BN, Black PN |
| E 155 | Brown HT |
| E 160d | Lycopene |
| E 160c | Beta-8'-carotenal (C30) |
| E 160f | Ethyl ester of beta-apo.-8'-carotenoic acid (C30) |
| E 161b | Lutein |

Colours **very restricted** in their use and allowed for certain foodstuffs, only:

| E number | Food colour |
|-----------------|---|
| E 123 | Amaranth <i>(wines)</i> |
| E 127 | Erythrosine <i>(cocktail cherry)</i> |
| E 128 | Red2G |
| E 154 | BrownFK <i>(smoke herring, skippers)</i> |
| E 161g | Canthaxanthin <i>(Strassburg sausage)</i> |
| E 173 | Aluminium |
| E 174 | Silver |
| E 175 | Gold |
| E 180 | Lithorubine BK |
| E 160b | Annatto, Bixin, Norbixin <i>(margarine)</i> |

The labelling of foods, which shall include additional warning information

- Concerns products containing colours Sunset yellow (E 110), quiniline yellow (E 104), carmoisine (E112), allura red (E 129), tartrazine (E102), ponceau 4R (124)
- Products containing these colours shall have the warning:
”***May have an adverse effect on activity and attention in children***”



Case: Food Colour

Sudan Redi in chilli and chilli products

- Sudan dyes are red dyes that are used for colouring solvents, waxes, shoe and floor polishes. These dyes are carcinogenic and genotoxic.
- Chilli products containing Sudan have been found extensively on EU market from 2003
- EU made decision that every lot of chilli coming from third countries (mainly from India and Turkey) must be checked
- It is estimated that in 2004 5-10 % of the worlds chilli crop was adulterated by Sudan