

	Type of process	Colour Additives
Colorants occurring in nature	Natural Colorants. Colour substances from natural sources , i.e. animals, plants, minerals. Source materials may be processed by traditional food-preparation processes and / or physical processes (including distillation and solvent extraction) or enzymatic / microbiological processes.	E100 Curcumin E101 (i) Riboflavin <i>by fermentation</i> (ii) Riboflavin-5'-phosphate <i>by fermentation</i> ** E120 Cochineal, Carminic Acid, Carmines E140 (i) Chlorophylls (ii) Chlorophyllins E141 (i) Copper complexes of chlorophylls (ii) Copper complexes of chlorophyllins E150a Plain Caramel E153 Vegetable Carbon E160a (i) Mixed Carotenes (ii) Beta-carotene <i>from Blakeslea trispora</i> E160b Annatto, Bixin, Norbixin E160c Paprika extract, Capsanthin, Capsorubin E160d Lycopene <i>from tomato or Blakeslea</i> E161b Lutein E162 Beetroot Red, Betanin E163 Anthocyanins E170 Calcium carbonate
	Colour substances produced by synthesis and the same as those found in nature a) Colour substances, produced by chemical synthesis and identical to substances found in nature , i.e. substances present in animals, plants, minerals.	E101 (i) Riboflavin (ii) Riboflavin-5'-phosphate E160a (ii) Beta-carotene E160d Lycopene E160e Beta-apo-8'-carotenal (C30) E160f Ethyl ester of beta-apo-8'-carotenic acid (C30) E161g Canthaxanthin
	b) Colour substances derived from natural sources subsequently modified to yield substances identical to those found in nature , i.e. substances present in animals, plants, minerals.	E150b Caustic sulphite caramel* E150c Ammonia caramel* E150d Sulphite ammonia caramel* E170 Calcium carbonate <i>by synthesis</i> E171 Titanium dioxide E172 Iron Oxides
Colorants not occurring in nature	Artificial Colorants. Artificial colour substances produced by chemical synthesis and not identical to substances found in the nature.	E102 Tartrazine E104 Quinoline Yellow E110 Sunset Yellow FCF, Orange Yellow S E122 Azorubine, Carmoisine E123 Amaranth E124 Ponceau 4R, Cochineal Red A E127 Erythrosine E129 Allura Red AC E131 Patent Blue V E132 Indigotine, Indigo carmine E133 Brilliant Blue FCF E142 Greens S E151 Brilliant Black BN, Black PN E154 Brown FK E155 Brown HT E180 Litholrubine BK

E150b*, E150c*, E150d* = do these compounds occur in nature? EUTECA to advise.

Fermentation** = which includes phosphorylation and phosphorylation is included within traditional processing