

# codex alimentarius commission



FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS

WORLD  
HEALTH  
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Agenda Item 7 (a)

CX/FA 07/39/9 (Part 2)

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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FOOD ADDITIVES

#### Thirty-ninth Session

Beijing, China, 24-28 April 2007

### REPORT OF THE ELECTRONIC WORKING GROUP ON THE GSFA

#### PART 2<sup>1</sup>

(prepared by United States of America with the assistance with the assistance of Australia, Brazil, Canada, European Community, Indonesia, Japan, Malaysia, Mexico, New Zealand, Norway, Republic of Korea, South Africa, Switzerland, Thailand, ELC, IADSA, ICBA, ICGA, ICGMA, IDF, IFAC, IFDI, IFU, ISA, ISDI, and NATCOL)

Governments and international organizations in Observer status with the Codex Alimentarius Commission wishing to submit comments on the report of the electronic Working Group on the GSFA are invited to do so **no later than 16 March 2007** as follows: Secretariat, Codex Committee on Food Additives, National Institute of Nutrition and Food Safety, China CDC, 7 Panjiayuan Nanli, Chaoyang District, Beijing 100021, China (Telefax: + 86 10 67711813, E-mail: [secretariat@ccfa.cc](mailto:secretariat@ccfa.cc) *preferably*), with a copy to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Viale delle Terme di Caracalla, 00153 Rome, Italy (Telefax: +39.06.5705.4593; E-mail: [Codex@fao.org](mailto:Codex@fao.org) - *preferably*).

### PART III – COLOURS

1. The 38<sup>th</sup> CCFAC agreed that the eWG should take a “horizontal” approach to its discussion of the GSFA provisions for colors. The eWG reached general consensus on a positive list of food categories in which the use of one or more colors is technologically justified (see Appendix III). The CCFA may wish to consider this list of food categories as work on the GSFA progresses.

2. There was general consensus among the eWG that Note 4<sup>2</sup> and Note 16<sup>3</sup> should, in principle, be associated with all color provisions in food categories that relate to fresh fruits (04.1.1), fresh vegetables (04.2.1), fresh meat (08.1) and fresh fish (09.1).

#### **Recommendation 1 - Food Categories in Which the Use of Colors is Technologically Justified**

The eWG recommends that the CCFA discuss the list of food categories for which the use of colors is justified (Appendix III), with a view toward reaching consensus and using the list as a working document in its future discussion of food additive sweeteners.

#### **Recommendation 2 - Food Categories in Which the Use of Colors is Technologically Justified**

The eWG recommends that the CCFA establish as a principle that all provisions for the use of colors in GSFA food categories 04.1.1, 04.2.1, 08.1, 09.1 et. seq. should include Notes 4 and 16.

<sup>1</sup> Due to its size this document has been divided into two parts: Part 1 (Introduction, Miscellaneous Food Additives and Sweeteners) and Part 2 (Colours and Appendices 1, 2 and 3).

<sup>2</sup> **Note 4** For decoration, stamping, marking or branding the product.

<sup>3</sup> **Note 16** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

**ALLURA RED AC (INS 129)**

3. The 25<sup>th</sup> JECFA (1981) assigned an ADI of 7 mg/kg bw/d for allura red AC.

<b>Recommendation 1 – Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for allura red AC in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	300	mg/kg		6	
02.2.1.2	margarine and similar products	300	mg/kg		3	
08.1.1	fresh meat, poultry, and game, whole pieces or cuts	500	mg/kg	Note 16	6	
08.1.1	fresh meat, poultry, and game, whole pieces or cuts		GMP	Note 4	3	
08.1.2	fresh meat, poultry, and game, comminuted	25	mg/kg		6	
08.4	edible casings (e.g., sausage casings)		GMP		3	
09.1.1	fresh fish	300	mg/kg	Note 50	6	
14.1.4.1	carbonated water-based flavoured drinks	300	mg/kg		6	Combined ML under category 14.1.4 (See Recommendation 2)
14.1.4.2	non-carbonated water-based flavoured drinks, including punches and ades	300	mg/kg		6	
14.1.4.3	concentrates (liquid or solid) for water-based flavoured drinks	1572	mg/kg		6	

<b>Recommendation 2 - Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for allura red AC in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.6.2.2	rind of ripened cheese	100	mg/kg		6	
01.6.4	processed cheese	200	mg/kg		6	
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	300	mg/kg		6	
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	<b>300</b>	<b>mg/kg</b>		6	Potentially colored by using the emulsified color preparation
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	300	mg/kg		6	
03.0	edible ices, including sherbet and sorbet	300	mg/kg		6	
04.1.2.4	canned or bottled (pasteurized) fruit	200	mg/kg		6	
04.1.2.5	jams, jellies and marmelades	300	mg/kg		6	1) Used for jams and jellies 2) To improve organoleptic properties of food
04.1.2.7	candied fruit	300	mg/kg		6	1) Used for confected fruits 2) To improve organoleptic properties of food
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	300	mg/kg		6	1) Used for fruit preparations 2) To improve organoleptic properties of food
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	300	mg/kg		6	1) Used for desserts of which their major constituent is fruits. 2) To provide colour (other colours are permitted) 3) To improve organoleptic properties of food

<b>Recommendation 2 - Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for allura red AC in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
04.1.2.11	fruit fillings for pastries	<b>300</b>	<b>mg/kg</b>		6	1) Used for fruit fillings 2) To improve organoleptic properties of food
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	<b>300</b>	<b>mg/kg</b>		6	
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200	mg/kg		6	1) Potentially used for e.g. rootstalks. 2) To improve organoleptic properties of food
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	200	mg/kg		6	1) Potentially used for sugared vinegar pickled vegetables. 2) To improve organoleptic properties of food
05.1.3	cocoa-based spreads, including fillings	300	mg/kg		6	Potentially used for fillings
05.1.4	cocoa and chocolate products	300	mg/kg		6	1) Potentially used for chocolate products 2) Allura Red AC is widely used as a coloring agent in beverages, candy, cereals, confections, deserts, ice cream and food supplements when an orange-red hue is required. Allura red is a general-purpose color with reasonable stability in a variety of foods and tolerance to processing and storage. Synthetic colors are widely used because they are brighter, more uniform and encompass a wider range of hues than natural colors.
05.1.5	imitation chocolate, chocolate substitute products	300	mg/kg		6	
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	<b>300</b>	<b>mg/kg</b>		6	
05.3	chewing gum	<b>300</b>	<b>mg/kg</b>		6	<b>Technological need/level justification</b> Allura Red AC imparts a red-orange colour to chewing-gum products. It is used primarily in cinnamon flavoured chewing – gums. Consumers relate colour to flavour and vice versa. Consumers associate the fire red-orange colour of Allura Red AC to that of the red hot cinnamon flavoured chewing-gum. The use of 467 mg/kg of Allura Red AC is justified because it takes this level of colour to produce the fire red-orange colour by masking the

<b>Recommendation 2 - Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for allura red AC in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						dark chocolate brown colour imparted by natural gum base or the whiteness of the gum sweeteners such as sucrose or sorbitol.  <b>Safety</b> The consumption of 3g of chewing gum <sup>4</sup> containing 460 mg/kg of Allura Red by a 60 kg adult would result in the ingestion of 1.4 mg of colour or about 0.3% of the ADI. This assumes 100% extraction of the colour during chewing and assumes that all chewing gum products would be coloured using Allura Red AC.
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	<b>300</b>	<b>mg/kg</b>		6	
06.2	flours and starches (including soybean powder)	<b>300</b>	<b>mg/kg</b>		6	Potentially used for starches
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	300	mg/kg		6	
07.1.2	crackers, excluding sweet crackers	300	mg/kg		6	1) Potentially used for cracker products. 2) To provide colour (other colours are permitted)
07.1.3	other ordinary bakery products (e.g., bagels, pita, English muffins)	300	mg/kg		6	1) Potentially used for bakery products. 2) To provide colour (other colours are permitted)
07.2.1	cakes, cookies and pies (e.g., fruit-filled or custard types)	<b>300</b>	<b>mg/kg</b>		6	To provide colour (other colours are permitted)
07.2.2	other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)	300	mg/kg		6	To provide colour (other colours are permitted)
07.2.3	mixes for fine bakery wares (e.g., cakes, pancakes)	300	mg/kg		6	To provide colour (other colours are permitted)
08.4	edible casings (e.g., sausage casings)	<b>300</b>	<b>mg/kg</b>	Note 16	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>	Note 95	6	
09.2.4.1	cooked fish and fish products	<b>300</b>	<b>mg/kg</b>		6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	250	mg/kg		6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>	Note 22	6	
09.3.3	salmon substitutes, caviar, and other fish roe products	<b>300</b>	<b>mg/kg</b>		6	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	<b>300</b>	<b>mg/kg</b>		6	

<sup>4</sup> Figures collected in EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: "Guidelines for simple evaluation of food additive intake" and confirmed by an EEC survey conducted in some EEC countries.

<b>Recommendation 2 - Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for allura red AC in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
10.1	fresh eggs	100	mg/kg	Note 4	3	
10.4	egg-based desserts (e.g., custard)	300	mg/kg		6	
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	300	mg/kg		6	
12.2.2	seasonings and condiments	<b>300</b>	<b>mg/kg</b>		6	
12.4	mustards	300	mg/kg		6	
12.5	soups and broths	300	mg/kg		6	
12.6	sauces and like products	<b>300</b>	<b>mg/kg</b>		6	
12.9.5	other protein products	100	mg/kg		6	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	50	mg/kg		6	
13.4	dietetic formulae for slimming purposes and weight reduction	50	mg/kg		6	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	300	mg/kg		6	
13.6	food supplements	300	mg/kg		6	Allura Red AC (INS 129) is used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control.  Usage levels vary depending on the thickness of the coating or capsule shell in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 600mg / kg based on the weight of the colour component. At this level the average intake from supplements would be less than 5mg per day.
<b>14.1.4</b>	<b>Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks</b>	<b>100</b>	<b>mg/kg</b>	<b>Note 127<sup>5</sup></b>		<b>Proposed new use in broader food category</b>
14.2.2	cider and perry	200	mg/kg		6	Potentially used for cider
14.2.4	wines (other than grape)	200	mg/kg		6	Potentially used for fruit wines
14.2.6	distilled spirituous beverages containing more than 15% alcohol	300	mg/kg		6	
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type	200	mg/kg		6	

<sup>5</sup> **Note 127:** As served to the consumer

<b>Recommendation 2 - Allura Red AC, INS 129</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for allura red AC in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	beverages, low alcoholic refreshers)					
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	200	mg/kg		6	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		6	
16.0	composite foods - foods that could not be placed in categories 01 - 15	<b>300</b>	<b>mg/kg</b>		6	Potentially used for complex foods

<b>Recommendation 3 - Allura Red AC, INS 129</b>						
<b>Comments are requested</b> on the following food additive provisions for allura red AC in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.1	unripened cheese	200	mg/kg	Note 3 <sup>6</sup>	3	1) To color surface of cheese; 2) No technological need identified for the cheese itself, only used on rind. 2) CX STAN 221 (Unripened Cheese) allows the use of other colors
01.6.5	cheese analogues	300	mg/kg	Note 3	3	1) Potentially used for similar products of cheese. Potentially be colored on the surface. 2) No technological need identified for the cheese itself, only used on rind.
08.3.2	heat-treated processed comminuted meat, poultry, and game products	25	mg/kg		6	1) Potentially used for heat processed meat. 2) To improve organoleptic properties of extended meat products
<b>14.1.5</b>	<b>Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa</b>	<b>100</b>	<b>mg/kg</b>			<b>Proposed new use</b>

### BRILLIANT BLUE FCF (INS 133)

- The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of brilliant blue FCF.
- The 13<sup>th</sup> JECFA (1969) assigned an ADI of 12.5 mg/kg bw/d for brilliant blue FCF.

<b>Recommendation 1 – Brilliant Blue FCF, INS 133</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for brilliant blue FCF in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
04.1.1.2	surface-treated fresh fruit	500	mg/kg	Note 16 <sup>7</sup>	6	

<b>Recommendation 2 - Brilliant Blue FCF, INS 133</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for brilliant blue FCF in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.6.5	cheese analogues	<b>100</b>	<b>mg/kg</b>	Note 3	3	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	<b>100</b>	<b>mg/kg</b>		6	
04.1.2.7	candied fruit	<b>100</b>	<b>mg/kg</b>		6	
04.1.2.8	fruit preparations, including	<b>100</b>	<b>mg/kg</b>		6	

<sup>6</sup> **Note 3:** Surface treatment.

<sup>7</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Brilliant Blue FCF, INS 133</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for brilliant blue FCF in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	pulp, purees, fruit toppings and coconut milk					
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	100	mg/kg		6	
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	100	mg/kg	Note 92 <sup>8</sup>	3	
05.1.5	imitation chocolate, chocolate substitute products	100	mg/kg		6	
08.0	meat and meat products, including poultry and game	100	mg/kg	Note 4 <sup>9</sup> 16	6	
09.2.4.1	cooked fish and fish products	100	mg/kg	Note 95 <sup>10</sup> ,	6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	100	mg/kg		6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 22 <sup>11</sup>	6	
12.2.2	seasonings and condiments	100	mg/kg		6	
12.4	mustards	100	mg/kg		6	
12.5	soups and broths	50	mg/kg		6	For consistency with CX STAN 117.
12.6	sauces and like products	100	mg/kg		6	
12.9.5	other protein products	100	mg/kg		6	

<b>Recommendation 3 – Brilliant Blue FCF, INS 133</b>						
<b>Comments are requested</b> on the following food additive provisions for brilliant blue FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.1	unripened cheese	200	mg/kg	Note 3 <sup>12</sup>	3	1) Technological need is questioned in particular because rind is not expected to be formed in unripened cheese. 2) CX STAN 221 (Unripened Cheese) allows the use of other colors
04.1.2.4	canned or bottled (pasteurized) fruit	200	mg/kg		6	CX standards subject to this food category allow for the use of other colors
04.1.2.5	jams, jellies and marmelades	500	mg/kg		6	CX STANs 79 and 80 allow for the use of other colours
04.2.2.3	vegetables (including	500	mg/kg		6	The draft Codex Standard for pickled fruits allows for the use of

<sup>8</sup> **Note 92:** Excluding tomato-based sauces

<sup>9</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>10</sup> **Note 95:** For use in surimi and fish roe products only

<sup>11</sup> **Note 22:** For use in smoked fish products only.

<sup>12</sup> **Note 3:** Surface treatment.

<b>Recommendation 3 – Brilliant Blue FCF, INS 133</b>						
<b>Comments are requested</b> on the following food additive provisions for brilliant blue FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce					other colors
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200	mg/kg		6	1) The draft Codex Standard for Certain Canned Vegetables allows for the use of this color and other colors. 2) Technological need for uses other than in processed mush peas.
05.1.3	cocoa-based spreads, including fillings	100	mg/kg		6	Justification of technological need is requested. Use could mislead consumers
05.1.4	cocoa and chocolate products	100	mg/kg		6	Justification of technological need is requested. Use could mislead consumers
07.1	bread and ordinary bakery wares	100	mg/kg		6	Justification of technological need is requested. Basic foods with wide consumption which could increase significantly the intake of this colour
16.0	composite foods - foods that could not be placed in categories 01 - 15	100	mg/kg	Note 2 <sup>13</sup>	6	Justification should be provided why the carry over wouldn't be sufficient

### CANTHAXANTHIN (INS 161G)

6. The 28<sup>th</sup> CAC has adopted one provision for the use of canthaxanthin in the GSFA.
7. The JECFA (1995) assigned an ADI of 0.03 mg/kg bw/d for canthaxanthin.
8. The 30<sup>th</sup> CCFA requested that JECFA perform intake estimates for canthaxanthin based on the pending levels of maximum use in the GSFA and national food consumption data. The 53<sup>rd</sup> JECFA (1999) concluded that the dietary intake of canthaxanthin exceeded the ADI of 0-0.03 mg/kg bw. Indirect exposure through the use of canthaxanthin as a colourant in animal feeds is the major source of canthaxanthin in food. However, JECFA concluded that long-term intake of canthaxanthin is unlikely to exceed the ADI.

<b>Recommendation 1 – Canthaxanthin, INS 161g</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for canthaxanthin in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
02.1.2	vegetable oils and fats		GMP		6	
02.1.3	lard, tallow, fish oil, and other animal fats		GMP		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk		GMP		6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce		GMP		6	
06.3	breakfast cereals, including rolled oats	50	mg/kg		3	See Recommendation 2
08.1.2	fresh meat, poultry, and game, comminuted	1000	mg/kg	Note 94 <sup>14</sup>	6	

<sup>13</sup> **Note 2:** On dry ingredient, dry weight, dry mix or concentrate basis.

<sup>14</sup> **Note 94:** For use in loganiza (fresh, uncured sausage) only.



<b>Recommendation 2 - Canthaxanthin, INS 161g</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for canthaxanthin in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	15	mg/kg		6	
01.6.1	unripened cheese	15	mg/kg		6	
01.6.2	ripened cheese	15	mg/kg		6	
01.6.4	processed cheese	15	mg/kg		6	
01.6.5	cheese analogues	15	mg/kg		6	
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	15	mg/kg		6	
02.2.1.3	blends of butter and margarine	15	mg/kg		6	
02.2.2	emulsions containing less than 80% fat	15	mg/kg		6	
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	15	mg/kg		6	
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	15	mg/kg		6	
04.1.2.5	jams, jellies and marmelades	200	mg/kg		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	15	mg/kg		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	15	mg/kg		6	
04.1.2.11	fruit fillings for pastries	15	mg/kg		6	
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	10	mg/kg		6	
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	15	mg/kg		6	
05.3	chewing gum	15	mg/kg		6	
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	15	mg/kg		6	
06.3	breakfast cereals, including rolled oats	15	mg/kg		6	
06.4.2	dried pastas and noodles and like products	15	mg/kg		6	
06.4.3	pre-cooked pastas and noodles and like products	15	mg/kg		6	
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	15	mg/kg		6	
07.0	bakery wares	15	mg/kg		6	
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	100	mg/kg	Note 118 <sup>15</sup>		
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	35	mg/kg	Note 95 <sup>16</sup>	6	
09.2.4.1	cooked fish and fish products	100	mg/kg		6	Needed to correct/improve/enhance the colour of tomato based sauce used in products that will not affect the fish-meat colour in a high temperature process
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	15	mg/kg	Note 22 <sup>17</sup>	6	
09.3.3	salmon substitutes, caviar, and other	15	mg/kg		6	

<sup>15</sup> **Note 118:** Except for use in tocino (fresh, cured sausage) at 1000 mg/kg.

<sup>16</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>17</sup> **Note 22:** For use in smoked fish products only.

<b>Recommendation 2 - Canthaxanthin, INS 161g</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for canthaxanthin in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	fish roe products					
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	15	mg/kg		6	
10.4	egg-based desserts (e.g., custard)	15	mg/kg		6	
11.3	sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	15	mg/kg		6	
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	15	mg/kg		6	
12.2.2	seasonings and condiments	20	mg/kg		6	
12.5.2	mixes for soups and broths	30	mg/kg	Note 127 <sup>18</sup>	6	
12.6	sauces and like products	100	mg/kg		6	
14.1.4.2	non-carbonated water-based flavoured drinks, including punches and ades	5	mg/kg		6	Canthaxanthin is in limited use in some juice drinks since it provides a different shade in the spectrum yellow-orange-red that is usually quite different from other carotenes. We believe that 5 mg/kg represents the current use levels in some juice drinks
14.1.4.3	concentrates (liquid or solid) for water-based flavoured drinks	5	mg/kg	Note 127	6	1) Colour to improve organoleptic properties of food 2) Max limit in Brazil, Argentina, Uruguay and Paraguay legislation is 35 mg/kg. Used to stabilize nature identical color
14.2.6	distilled spirituous beverages containing more than 15% alcohol	5	mg/kg		6	Stable colourant for alcoholic beverages
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	5	mg/kg		3	
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	45	mg/kg		6	Stable, nature-identical colour
16.0	composite foods - foods that could not be placed in categories 01 - 15	80	mg/kg	Note 2 <sup>19</sup>	6	

### CARAMEL COLOUR, CLASS III (INS 150C)

9. The 29<sup>th</sup> JECFA (1985) assigned an ADI of 200 mg/kg bw/d for caramel colour class III.

<b>Recommendation 1 – Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for caramel colour class III in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
02.2.1.2	margarine and similar products	20000	mg/kg		3	
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds		GMP	Note 76 <sup>20</sup>	6	Combined ML under category 04.2.2 (See recommendation 3)
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented		GMP		6	

<sup>18</sup> Note 127: As served to the consumer

<sup>19</sup> Note 2: On dry ingredient, dry weight, dry mix or concentrate basis.

<sup>20</sup> Note 76: Use in potatoes only.

<b>Recommendation 1 – Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for caramel colour class III in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	soybean products of food category 12.10					
04.2.2.8	cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds		GMP		6	
05.0	confectionery	50000	mg/kg		3	1) There are no non-standardized foods in subcategory 05.1.1 and the relevant commodity standards (CX STAN 105 & 141) do not contain any provisions for the use of colors. 2) Used to color rice biscuits and biscuits. 3) To provide colour (other colours are permitted) 4) To improve organoleptic properties of food 5) Caramel color is one of the most widely used colorants in foods. It is used in soft drinks, baked goods, candy, ice cream, gravies and meats to impart a brown color.
05.1.1	cocoa mixes (powders) and cocoa mass/cake		GMP		6	There are no non-standardized foods in food category 05.1.1 and the relevant commodity standards (CX STAN 105 & 141) do not contain any provisions for the use of colors.
08.0	meat and meat products, including poultry and game	200000	mg/kg	Note 16 <sup>21</sup>	3	See recommendation 3
09.1.1	fresh fish		GMP	Notes 3 & 50	6	See recommendation 3
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	See recommendation 3
09.2.4.1	cooked fish and fish products		GMP	Note 50	6	See recommendation 3
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	See recommendation 3
12.2	herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	100000	mg/kg		3	
14.1.2.2	vegetable juice	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
14.1.2.4	concentrates for vegetable juice	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
14.2	alcoholic beverages, including alcohol-free and low-alcoholic counterparts	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer

<sup>21</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Caramel Colour Class III, INS 150c</b>					
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following adopted food additive provisions for caramel colour class III in the GSFA.					
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Justification provided to eWG</b>
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg		See recommendation 3
01.2.1	fermented milks (plain)	150	mg/kg	Note 12 <sup>22</sup>	
01.2.2	renneted milk (plain)		GMP		
01.3.2	beverage whiteners		GMP		See recommendation 3
01.4.3	clotted cream (plain)		GMP		See recommendation 3
01.5.2	milk and cream powder analogues		GMP		See recommendation 3
01.6.1	unripened cheese		GMP		See recommendation 3
01.6.2.2	rind of ripened cheese		GMP		See recommendation 3
01.6.4	processed cheese		GMP		See recommendation 3
01.6.5	cheese analogues		GMP		See recommendation 3
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	2000	mg/kg		See recommendation 3
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7		GMP		See recommendation 3
03.0	edible ices, including sherbet and sorbet	1000	mg/kg		See recommendation 3
04.1.2.3	fruit in vinegar, oil, or brine		GMP		Combined ML under category 04.1.2 (See recommendation 3)
04.1.2.4	canned or bottled (pasteurized) fruit		GMP		
04.1.2.5	jams, jellies and marmelades		GMP		
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg		
04.1.2.7	candied fruit		GMP		
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	7500	mg/kg		
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts		GMP		
04.1.2.11	fruit fillings for pastries	7500	mg/kg		
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds		GMP		
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)		GMP		
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5		GMP		
06.3	breakfast cereals, including rolled oats	6500	mg/kg		See recommendation 3
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)		GMP		See recommendation 3
07.2	fine bakery wares (sweet, salty, savoury) and mixes		GMP		See recommendation 3
09.1	fresh fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Notes 3 & 50 <sup>23</sup>	See recommendation 3
09.2	processed fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	See recommendation 3
09.3.3	salmon substitutes, caviar, and other fish roe products		GMP	Note 50	See recommendation 3
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 50	See recommendation 3

<sup>22</sup> **Note 12:** Carryover from flavouring substances.

<sup>23</sup> **Note 50:** For use in fish roe only.

<b>Recommendation 2 - Caramel Colour Class III, INS 150c</b>					
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following adopted food additive provisions for caramel colour class III in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification provided to eWG
10.1	fresh eggs		GMP	Note 4 <sup>24</sup>	See recommendation 3
10.4	egg-based desserts (e.g., custard)		GMP		See recommendation 3
12.2.2	seasonings and condiments		GMP		See recommendation 3
12.3	vinegars	1000	mg/kg		See recommendation 3
12.4	mustards		GMP		See recommendation 3
12.5	soups and broths		GMP		See recommendation 3
12.6	sauces and like products	1500	mg/kg		See recommendation 3
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3		GMP		See recommendation 3
12.9.5	other protein products		GMP		See recommendation 3
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)		GMP		See recommendation 3
13.4	dietetic formulae for slimming purposes and weight reduction		GMP		See recommendation 3
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6		GMP		See recommendation 3
13.6	food supplements		GMP		See recommendation 3
14.1.3.2	vegetable nectar		GMP		See recommendation 3
14.1.3.4	concentrates for vegetable nectar		GMP		See recommendation 3
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks		GMP		See recommendation 3
14.2.2	cider and perry		GMP		See recommendation 3
14.2.4	wines (other than grape)		GMP		See recommendation 3
15.0	ready-to-eat savouries		GMP		See recommendation 3

<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for caramel colour class III in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	50000	mg/kg	Note 52 <sup>25</sup>	3	Provides numeric ML to replace adopted GMP limit in this category.
01.3.2	beverage whiteners	1000	mg/kg		3	
01.4.3	clotted cream (plain)	5000	mg/kg		3	
01.5.2	milk and cream powder analogues	5000	mg/kg		3	
01.6.1	unripened cheese	50000	mg/kg		3	1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used for unripened cheese; 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese.
01.6.2	ripened cheese	50000	mg/kg		3	1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used to the smoked cheeses surfaces; 3) These colors may be used to

<sup>24</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>25</sup> **Note 52:** Excluding chocolate milk

<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class III in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.6.4	processed cheese	50000	mg/kg		3	1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used for the colour of cheese spreads; 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.6.5	cheese analogues	50000	mg/kg		3	1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used for the color of imitation cheese; 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	50000	mg/kg		3	
01.8.1	whey and whey products, excluding whey cheeses	50000	mg/kg		3	
02.1.2	vegetable oils and fats	20000	mg/kg		3	Used for vegetable oils and fats
02.1.3	lard, tallow, fish oil, and other animal fats	20000	mg/kg		3	Used for coloring edible lard
02.2.1.3	blends of butter and margarine	20000	mg/kg		3	Used to color chocolate margarine
02.2.2	emulsions containing less than 80% fat	<b>500</b>	<b>mg/kg</b>		3	1) There is a technological need for the spreads containing other ingredients, as cocoa, in what the proposed level use is necessary to re-establish or to set the brown color, due to the absorbance factor of this colour in aqueous solution. 2) Used for color the processed fats
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	20000	mg/kg		3	Used for color the whipped cream.
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category.
03.0	edible ices, including sherbet and sorbet	30000	mg/kg		3	
04.1.2	processed fruit	<b>50,000</b>	<b>mg/kg</b>		3	Use in broader food category. Coloring for processed fruits
04.2.2	processed vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	<b>50,000</b>	<b>mg/kg</b>		3	Use in broader food category.  1) Coloring for processed vegetables. 2) To provide colour (other colours are permitted)
05.1.5	imitation chocolate, chocolate substitute products	<b>50,000</b>	<b>mg/kg</b>			1) Used to color cocoa and chocolate 2) To improve organoleptic properties of food

<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class III in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
06.3	breakfast cereals, including rolled oats	50000	mg/kg	<b>Note AA</b> <sup>26</sup>	3	
06.4.2	dried pastas and noodles and like products	50000	mg/kg		3	1) Used to Color Chinese noodles 2) To improve organoleptic properties of food
06.4.3	pre-cooked pastas and noodles and like products	50000	mg/kg		3	1) Adopted in Codex Instant Noodle Std (249) at 50,000 mg/kg; 2) Used to Color Chinese noodles 3) To improve organoleptic properties of food
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	50000	mg/kg		3	
06.6	batters (e.g., for breading or batters for fish or poultry)	50000	mg/kg		3	
06.7	pre-cooked or processed rice products, including rice cakes (Oriental type only)	50000	mg/kg		3	
07.1.2	crackers, excluding sweet crackers	50000	mg/kg		3	Used to color crackers
07.1.3	other ordinary bakery products (e.g., bagels, pita, English muffins)	50000	mg/kg		3	1) Used to color brown sugar breads 2) To improve organoleptic properties of food
07.1.4	bread-type products, including bread stuffing and bread crumbs	50000	mg/kg		3	Used to color croutons
07.1.5	steamed breads and buns	50000	mg/kg		3	Used to color brown sugar steamed breads
07.1.6	mixes for breads and ordinary bakery wares	50000	mg/kg		3	1) Used to color hot cake mixes 2) To improve organoleptic properties of food
07.2	fine bakery wares (sweet, salty, savoury) and mixes	50000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
08.0	meat and meat products, including poultry and game		GMP	<b>Note 3</b> <sup>27</sup> <b>Note 4</b> <sup>28</sup> <b>16</b> <sup>29</sup>		Adds note to adopted provision that restricts use to glazes and coatings.
09.1	fresh fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	<b>Note 4 &amp; 16</b>	3	Provides numeric ML to replace adopted GMP limit in this category
09.2	processed fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg		3	1) Provides numeric ML to replace adopted GMP limit in this category 2) Used for color the minced fish and the tukudani (fish boiled in soy sauce)
09.3	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg		3	Used to color the fish dipped in soy sauce
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	<b>Note 95</b> <sup>30</sup>	3	Used for color the pressure and heat treated products e.g. canned foods

<sup>26</sup> **Note AA:** Excluding rolled oats.

<sup>27</sup> **Note 3:** Surface treatment.

<sup>28</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>29</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>30</sup> **Note 95** For use in surimi and fish roe products only.

<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for caramel colour class III in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
10.1	fresh eggs	20000	mg/kg	Note 4 <sup>31</sup>	3	Provides numeric ML to replace adopted GMP limit in this category
10.2	egg products	20000	mg/kg		3	Used for color the egg soup and fried eggs
10.3	dried and/or heat coagulated egg products	20000	mg/kg		3	Used for color the peatans
10.4	egg-based desserts (e.g., custard)	20000	mg/kg		3	
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	50000	mg/kg		3	Used to color the toppings for cakes
11.6	table-top sweeteners, including those containing high-intensity sweeteners	50000	mg/kg		3	Caramel colour, class III, is stable in slightly acidic conditions and thus is well suited for applications in table-top sweeteners, for consumer appealing colouring. The maximum use level as listed (50000 mg/kg) is adequate. It is requested to maintain this entry for cat. 11.6.
<b>12.2.2</b>	<b>seasonings and condiments</b>	<b>50000</b>	<b>mg/kg</b>			<b>1) New entry that provides numeric ML to replace adopted GMP limit in this category 2) Used for coloring of the seasoning for instant noodles. 3) To improve organoleptic properties of food</b>
12.3	vinegars	100000	mg/kg		3	
12.4	mustards	100000	mg/kg			Provides numeric ML to replace adopted GMP limit in this category
12.5	soups and broths	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.6	sauces and like products	100000	mg/kg		3	
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.9.1	soybean protein products	100000	mg/kg		3	
12.9.3	semi-dehydrated bean curd	80000	mg/kg		3	
12.9.5	other protein products	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.10	fermented soybean products	100000	mg/kg		3	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
13.4	dietetic formulae for slimming purposes and weight reduction	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
13.6	food supplements	20000	mg/kg		3	1) Provides numeric ML to replace adopted GMP limit in this

<sup>31</sup> **Note 4:** For decoration, stamping, marking or branding the product.



<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class III in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>category</p> <p>2) Caramel Colour Class III (INS Number 150c) is used as a colorant for food supplements (category 13.6) and is specifically used in capsule shells and tablet coatings to give an opaque dark-brown colour.</p> <p>When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control.</p> <p>In certain soft-gel capsules the contents can settle with time producing an unsightly stain on the inner surface of the capsule shell. The opacity of caramel as a colour can hide the stain.</p> <p>Usage level varies depending on the thickness of the capsule shell and its surface area, and in the case of tablets on the thickness of the coating, in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 20000mg / kg.</p>
14.1.3.2	vegetable nectar	50000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
14.1.3.4	concentrates for vegetable nectar	50000	mg/kg	Note 127 <sup>32</sup>	3	Provides numeric ML to replace adopted GMP limit in this category
14.1.4	water-based flavoured drinks, including "sport," "energy" or "electrolyte" drinks and particulated drinks	50000	mg/kg		3	<p>1) Provides numeric ML to replace adopted GMP limit in this category</p> <p>2) The use levels according to GMP should be acceptable due to the high ADI and suggests reconsidering the proposed revocation</p>
14.1.5	coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	100000	mg/kg		3	<p>1) Must not be added to coffee, coffee substitutes, tea, herbal infusions and similar products</p> <p>2) Used to color coffee drinks</p> <p>3) If a numeric value is required, we support adopting the proposed level at Step 5/8 based on information provided on the use of caramel colors in canned coffees and coffee extenders. MLs according to GMP should be accepted due to the high ADI and a long history of safe use of the color.</p>
<b>14.2.2</b>	<b>cider and perry</b>	<b>1000</b>	<b>mg/kg</b>			<b>New entry that provides numeric ML to replace adopted GMP limit in this</b>

<sup>32</sup> **Note 127:** As served to the consumer.

<b>Recommendation 3 - Caramel Colour Class III, INS 150c</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class III in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<b>category</b>
14.2.4	wines (other than grape)	1000	mg/kg			New entry that provides numeric ML to replace adopted GMP limit in this category
14.2.5	mead	1000	mg/kg		6	
15.0	ready-to-eat savouries	10000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category.

<b>Recommendation 4 - Caramel Colour Class III, INS 150c</b>						
<b>Comments are requested</b> on the following food additive provisions for caramel colour class III in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.4.4	cream analogues	5000	mg/kg		3	The technological need is questioned
05.1.2	cocoa mixes (syrups)		GMP		6	The technological need is questioned
05.1.4	cocoa and chocolate products		GMP			See recommendation 3
16.0	composite foods - foods that could not be placed in categories 01 - 15	20000	mg/kg		3	1) Technological need is questioned. Justification should be provided why the carry over wouldn't be sufficient. 2) Used to color bean-paste. 3) To improve organoleptic properties of food.

#### CARAMEL COLOUR, CLASS IV (INS 150D)

10. The 29<sup>th</sup> JECFA (1985) assigned an ADI of 200 mg/kg bw/d for caramel colour class IV.

<b>Recommendation 1 – Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>discontinue</u> further work on the following food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.4.3	clotted cream (plain)	5000	mg/kg		3	Foods covered by this category would not be expected to contain added colors
01.6.4.1	plain processed cheese		GMP		6	See recommendation 3
01.6.4.2	flavoured processed cheese, including containing fruit, vegetables, meat, etc.	100	mg/kg	Notes 5 <sup>33</sup> & 72 <sup>34</sup>	6	See recommendation 3
01.8.1	liquid whey and whey products, excluding whey cheeses	50000	mg/kg		3	Technological need is questioned,
02.1.2	vegetable oils and fats	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
02.1.3	lard, tallow, fish oil, and other animal fats	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
02.2.1.2	margarine and similar products	20000	mg/kg		3	
02.2.1.3	blends of butter and margarine	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
02.2.2	emulsions containing less than 80% fat	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer

<sup>33</sup> **Note 5:** Used in raw materials for manufacture of the finished food.

<sup>34</sup> **Note 72:** Ready-to-eat basis.

<b>Recommendation 1 – Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	based on fat emulsions					
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds		GMP	Note 76 <sup>35</sup>	6	Combined ML under broader food category (See recommendation 3)
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10		GMP		6	
04.2.2.8	cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds		GMP		6	
05.0	confectionery	50000	mg/kg		3	No non-standardized foods in sub-category 05.1.1 and relevant Codex commodity standards (105 & 141) do not contain provisions for the use of any colors
05.1.1	cocoa mixes (powders) and cocoa mass/cake		GMP		6	
08.0	meat and meat products, including poultry and game	200000	mg/kg	Note 16 <sup>36</sup>	3	See recommendation 3
09.1	fresh fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	Note 16	3	
09.1.1	fresh fish		GMP	Notes 3 & 50	6	See recommendation 3
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	See recommendation 3
09.2.4.1	cooked fish and fish products		GMP	Note 50	6	See recommendation 3
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	See recommendation 3
12.2	herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	100000	mg/kg		3	Technological need is questioned for use in herbs and spices, as this use could mislead the consumer
14.2	alcoholic beverages, including alcohol-free and low-alcoholic counterparts	50000	mg/kg		3	Technological need is questioned for use in herbs and spices, as this use could mislead the consumer

<b>Recommendation 2 - Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following adopted food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments		
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg			See recommendation 3
01.3.2	beverage whiteners		GMP			See recommendation 3
01.4.3	clotted cream (plain)		GMP			Foods covered by this category would not be expected to contain added colors
01.4.4	cream analogues		GMP			See recommendation 3

<sup>35</sup> **Note 76:** Use in potatoes only.

<sup>36</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Caramel Colour Class IV, INS 150d</b>					
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following adopted food additive provisions for caramel colour class IV in the GSFA.					
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	
01.5.2	milk and cream powder analogues		GMP		See recommendation 3
01.6.1	unripened cheese		GMP		See recommendation 3
01.6.2.2	rind of ripened cheese		GMP		See recommendation 3
01.6.4	processed cheese	100	mg/kg		See recommendation 3
01.6.5	cheese analogues		GMP		See recommendation 3
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	2000	mg/kg		See recommendation 3
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7		GMP		See recommendation 3
03.0	edible ices, including sherbet and sorbet	1000	mg/kg		See recommendation 3
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		Combined ML under category 04.2.2 (See recommendation 3)
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds		GMP		
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)		GMP		
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5		GMP		
06.3	breakfast cereals, including rolled oats	2500	mg/kg		See recommendation 3
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)		GMP		See recommendation 3
07.2.1	cakes, cookies and pies (e.g., fruit-filled or custard types)		GMP		See recommendation 3
07.2.2	other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)	1200	mg/kg		See recommendation 3
07.2.3	mixes for fine bakery wares (e.g., cakes, pancakes)		GMP		See recommendation 3
09.1	fresh fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Notes 3 <sup>37</sup> & 50 <sup>38</sup>	
09.2	processed fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	See recommendation 3
09.3.3	salmon substitutes, caviar, and other fish roe products		GMP	Note 50	See recommendation 3
10.1	fresh eggs		GMP	Note 4	See recommendation 3
10.4	egg-based desserts (e.g., custard)		GMP		See recommendation 3
12.2.2	seasonings and condiments		GMP		See recommendation 3
12.3	vinegars		GMP		See recommendation 3
12.4	mustards		GMP		See recommendation 3
12.5.1	ready-to-eat soups and broths, including canned, bottled, and frozen	3000	mg/kg		See recommendation 3
12.5.2	mixes for soups and broths		GMP		See recommendation 3
12.6	sauces and like products	1500	mg/kg		See recommendation 3
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3		GMP		See recommendation 3
12.9.5	other protein products		GMP		See recommendation 3
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)		GMP		See recommendation 3
13.4	dietetic formulae for slimming purposes and weight reduction		GMP		See recommendation 3

<sup>37</sup> **Note 3:** Surface treatment.

<sup>38</sup> **Note 50:** For use in fish roe only.

<b>Recommendation 2 - Caramel Colour Class IV, INS 150d</b>					
The eWG recommends that the 39 <sup>th</sup> CCFA <u>revoke</u> the following adopted food additive provisions for caramel colour class IV in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6		GMP		See recommendation 3
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks		GMP		See recommendation 3
14.2.2	cider and perry		GMP		See recommendation 3
14.2.4	wines (other than grape)		GMP		See recommendation 3
14.2.6	distilled spirituous beverages containing more than 15% alcohol		GMP		
15.0	ready-to-eat savouries		GMP		See recommendation 3
16.0	composite foods - foods that could not be placed in categories 01 - 15	1000	mg/kg		See recommendation 3

<b>Recommendation 3 - Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	50000	mg/kg	<b>Note 52</b> <sup>39</sup>	3	
01.3.2	beverage whiteners	1000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
01.4.4	cream analogues	5000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
01.5.2	milk and cream powder analogues	5000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
01.6.1	unripened cheese	50000	mg/kg		3	Provides numeric ML to replace adopted GMP. 1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used for unripened cheeses, 3) These colors may be used to provide a distinguishing colour to various specialty cheeses eg fruit cheese
01.6.2	ripened cheese	50000	mg/kg		3	Provides numeric ML to replace adopted GMP.  1) These colours may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used to color the surface of smoked, ripened cheeses. 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.6.4	processed cheese	50000	mg/kg		3	Provides numeric ML to replace adopted GMP.  1) These colours may be used

<sup>39</sup> **Note 52:** Excluding chocolate milk

<b>Recommendation 3 - Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class IV in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						to provide a distinguishing colour to various specialty cheeses eg fruit cheese. These permissions should be retained in the GSFA 2) Used for colored cheese spreads. 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.6.5	cheese analogues	50000	mg/kg		3	1) Provides numeric ML to replace adopted GMP limit in this category 2) These colours may be used to provide a distinguishing colour to various specialty cheeses eg fruit cheese. These permissions should be retained in the GSFA 3) Used to color imitation cheese. 4) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	50000	mg/kg		3	
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
03.0	edible ices, including sherbet and sorbet	30000	mg/kg		3	
04.2.2	processed vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	<b>50,000</b>	<b>mg/kg</b>	<b>Note 92<sup>40</sup></b>	3	To provide colour (other colours are permitted)
05.1.5	imitation chocolate, chocolate substitute products	<b>50,000</b>	<b>mg/kg</b>		6	
06.3	breakfast cereals, including rolled oats	50000	mg/kg	<b>Note AA<sup>41</sup></b>	3	
06.4.3	pre-cooked pastas and noodles and like products	50000	mg/kg		3	Consistent with the Codex Standard for instant noodles (CX STAN 249)
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	50000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
06.6	batters (e.g., for breading or batters for fish or poultry)	50000	mg/kg		3	
06.7	pre-cooked or processed rice products, including rice cakes (Oriental type only)	50000	mg/kg		3	
07.1.3	other ordinary bakery products (e.g., bagels, pita, English muffins)	50000	mg/kg		3	To improve organoleptic properties of food
07.1.6	mixes for breads and ordinary bakery wares	50000	mg/kg		3	To improve organoleptic properties of food
07.2	fine bakery wares (sweet, salty, savoury) and mixes	50000	mg/kg		3	
08.0	meat and meat products,		GMP	<b>Notes 3<sup>42</sup></b>	8	Add notes 3 and 16 to adopted

<sup>40</sup> **Note 92:** Excluding tomato-based sauces

<sup>41</sup> **Note AA:** Excluding rolled oats.

<b>Recommendation 3 - Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class IV in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	including poultry and game			<b>4<sup>43</sup> &amp; 16<sup>44</sup></b>		provision
09.2	processed fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	<b>Note 95<sup>45</sup></b>	3	Provides numeric ML to replace adopted GMP limit in this category
09.3	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	<b>Note 95</b>	3	
10.1	fresh eggs	20000	mg/kg	Note 4 <sup>46</sup>	3	Provides numeric ML to replace adopted GMP limit in this category
10.4	egg-based desserts (e.g., custard)	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
<b>12.2.2</b>	<b>seasonings and condiments</b>	<b>100000</b>	<b>mg/kg</b>			<b>Provides numeric ML to replace adopted GMP limit in this category</b>
12.3	vinegars	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.4	mustards	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.5	soups and broths	100000	mg/kg		3	
12.6	sauces and like products	100000	mg/kg		3	
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.9.1	soybean protein products	100000	mg/kg		3	
12.9.3	semi-dehydrated bean curd	80000	mg/kg		3	
12.9.5	other protein products	100000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
12.10	fermented soybean products	100000	mg/kg		3	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	20000	mg/kg		3	
13.4	dietetic formulae for slimming purposes and weight reduction	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	20000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
13.6	food supplements	20000	mg/kg		3	1) Provides numeric ML to replace adopted GMP limit in this category 2) Caramel Colour Class IV (INS Number 150d) is used as a colorant for food supplements (category 13.6) and is specifically used in capsule shells and tablet coatings to

<sup>42</sup> **Note 3:** Surface treatment.

<sup>43</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>44</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>45</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>46</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 3 - Caramel Colour Class IV, INS 150d</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>give an opaque dark-brown colour.</p> <p>When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control.</p> <p>In certain soft-gel capsules the contents can settle with time producing an unsightly stain on the inner surface of the capsule shell. The opacity of caramel as a colour can hide the stain.</p> <p>Usage level varies depending on the thickness of the capsule shell and its surface area, and in the case of tablets on the thickness of the coating, in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 20000mg / kg.</p>
14.1.4	water-based flavoured drinks, including "sport," "energy" or "electrolyte" drinks and particulated drinks	50000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
<b>14.2.2</b>	<b>cider and perry</b>	<b>1000</b>	<b>mg/kg</b>			<b>Provides numeric ML to replace adopted GMP limit in these food categories</b>
<b>14.2.4</b>	<b>wines (other than grape)</b>	<b>1000</b>	<b>mg/kg</b>			
<b>14.2.5</b>	<b>mead</b>	<b>1000</b>	<b>mg/kg</b>			
15.0	ready-to-eat savouries	10,000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category
16.0	composite foods - foods that could not be placed in categories 01 - 15	20000	mg/kg		3	1) Used to color bean-pastes 2) To improve organoleptic properties of food

<b>Recommendation 4 - Caramel Colour Class IV, INS 150c</b>						
<b>Comments are requested</b> on the following food additive provisions for caramel colour class IV in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
04.1.2	processed fruit	80000	mg/kg		3	Technological need is questioned,
05.1.2	cocoa mixes (syrups)		GMP		6	Technological need is questioned, as this use could mislead the consumer
05.1.3	cocoa-based spreads, including fillings		GMP		adopted	Whether this provision should be revoked because it could result in misleading the consumer.
05.1.4	cocoa and chocolate products		GMP		6	1) Used to color cocoa, chocolates 2) To improve organoleptic properties of food
06.4.2	dried pastas and noodles and	50000	mg/kg		3	The technological need is



<b>Recommendation 4 - Caramel Colour Class IV, INS 150c</b>						
<b>Comments are requested</b> on the following food additive provisions for caramel colour class IV in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	like products					questioned. This is a basic food and this use could mislead the consumer
07.1.2	crackers, excluding sweet crackers	50000	mg/kg		3	The technological need is questioned. This is a basic foodstuff with wide consumption that would increase intake of colors.
07.1.4	bread-type products, including bread stuffing and bread crumbs	50000	mg/kg		3	The technological need is questioned. This is a basic foodstuff with wide consumption that would increase intake of colors.
07.1.5	steamed breads and buns	50000	mg/kg		3	The technological need is questioned. This is a basic foodstuff with wide consumption that would increase intake of colors.
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg		3	Justification for higher ML and whether there is a need in foods other than fish roe. Used for color pressure-heat-treated products e.g. canned foods
10.2	egg products	20000	mg/kg		3	The technological need is questioned.
10.3	dried and/or heat coagulated egg products	20000	mg/kg		3	The technological need is questioned.
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	50000	mg/kg		3	The technological need is questioned.
11.6	table-top sweeteners, including those containing high-intensity sweeteners	50000	mg/kg		3	1) The technological need is questioned. 2) Caramel colour, class IV, is stable in acidic conditions and thus is well suited for applications in table-top sweeteners, for consumer appealing colouring. The maximum use level as listed (50000 mg/kg) is adequate. It is requested to maintain this entry for cat. 11.6.
14.1.2.2	vegetable juice	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.
14.1.2.4	concentrates for vegetable juice	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.
14.1.3.2	vegetable nectar	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.
14.1.3.2	vegetable nectar	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.
14.1.3.4	concentrates for vegetable nectar	50000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.
14.1.5	coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	100000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer.

#### **CARMINES (INS 120)**

11. The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of carmines.

12. At the 55<sup>th</sup> meeting of the JECFA, (2000), the 1982 ADI of 0-5 mg/kg bw/d for carmines, as ammonium carmine or the equivalent of calcium, potassium and sodium salts was maintained.

<b>Recommendation 1 – Carmines, INS 120</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg		3	See recommendation 2
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	150	mg/kg		3	See recommendation 2
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	500	mg/kg		3	See recommendation 2

<b>Recommendation 2 - Carmines, INS 120</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.6.5	cheese analogues	100	mg/kg	Note 3 <sup>47</sup> , & BB <sup>48</sup>	6	1) Potentially colored for similar products of cheese. 2) 01.6.5 comprises new varieties of cheese analogues, where milk fat is replaced by vegetable fat. Such a variety of cheese-like products uses colour to support the various flavour and types of products, just as in traditional cheese. A wide range of colours are equally justified and should be equally permitted.
02.2.1.3	blends of butter and margarine	500	mg/kg	Note BB	3	Needed to balance the variations in colour provided by different sources. A wide range of colours is equally justified and should be equally permitted.
02.2.2	emulsions containing less than 80% fat	500	mg/kg	Note BB	3	Proposed new use, Needed to balance the variations in colour provided by different sources. A wide range of colours is equally justified and should be equally permitted.
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	500	mg/kg	Note BB	6	Needed to balance the variations in colour provided by different sources. A wide range of colours is equally justified and should be equally permitted.
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg	Note BB	6	Colours are used to restore colour. A wide range of colours is equally justified and should be equally permitted.
05.3	chewing gum	500	mg/kg	Note BB	6	1) <b>Technical need / level justification</b> This additive is needed to obtain desired colours of chewing gum when “natural” colours are required. Used in sufficient amounts, Carmines gives chewing gum a typical bright pink shade (depending on the Carmine preparation) which is appropriate for red berry or cinnamon

<sup>47</sup> **Note 3:** Surface treatment.

<sup>48</sup> **Note BB:** Expressed as carminic acid.

<b>Recommendation 2 - Carmines, INS 120</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>flavoured products. Carmine often has got a brighter bluish pink shade than other red colours which, upon blending with a blue colour, makes it suitable for obtaining chewing gum with purple colours. The purple shade may be varied by varying the ratio of Carmine and the blue colour component.</p> <p>Depending on the normal shade of other chewing gum ingredients (for example sugar, sorbitol, glucose syrup, gum base, etc) the amount of Carmine required to produce the desired colour may vary. Based on previous and existing formulas 1000 mg of Carmine per kg of finished chewing gum is needed to produce the colour acceptable to the consumer.</p> <p>Additions of this colour at less than 1000 mg/kg may result in rather unattractive shades being produced, the colour being blended with the creamy white or grey colour of the gum base and/or with the bright white colour of the main sweetening components. Hence, higher levels are required to overcome and mask the colours of the base and sweeteners to provide some degree of brightness and an appealing appearance to the product.</p> <p><b>Safety justification</b> The JECFA ADI value for Carmine is 0-5 mg/kg body weight. Consumption of 3g chewing gum<sup>49</sup> containing 1000 mg/kg Carmines by a 60kg adult would result in an ingestion of 3 mg colour or about 1% of the ADI. This ingestion is based on an assumption of 100% extraction of the colour during chewing, and assumes that all chewing gum consumed would be coloured using Carmine.</p> <p>2) 500 mg/kg is technologically relevant. A wide range of colours is equally justified and should be equally permitted.</p>
06.4.2	dried pastas and noodles and like products	100	mg/kg		3	100 mg/kg is technologically relevant. A wide range of colours is equally justified and should be equally permitted.
06.4.3	pre-cooked pastas and noodles and like products	100	mg/kg		3	1) ML is consistent with Codex Instant Noodle Standard (249). 2) 100 mg/kg is technologically

<sup>49</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: "Guidelines for simple evaluation of food additive intake" and confirmed by an EEC survey conducted in some EEC countries.

<b>Recommendation 2 - Carmines, INS 120</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						relevant. A wide range of colours is equally justified and should be equally permitted.
07.1	bread and ordinary bakery wares	500	mg/kg		6	Used for breads
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	<del>Note 85</del> <sup>50</sup> - <b>Note 95</b> <sup>51</sup>	3	
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16 <sup>52</sup> & <b>95</b>	6	
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16 & <b>95</b>	6	
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	100	mg/kg	<b>Note BB</b>	6	<p>1) The expression of the maximum level for "carmines" is unclear considering that the JECFA ADI is <b>not</b> based on the coloring principle, carminic acid, but is expressed simply as "carmines". Since some countries (e.g., the EU countries) base their maximum use levels of food colors on individual coloring principles (not total weights), we urge that the e-working group keeps this fact in mind when discussing Codex maximum use levels that are based on JECFA ADIs. "Carmines" is an example of a situation where two colors with vastly different levels of the coloring principle, carminic acid, are grouped together as "carmines". Carmine contains a minimum of 50% of carminic acid while the natural extract Cochineal extract contains a minimum of 2% of carminic acid.</p> <p>Carmines are natural colors used in beverages. <u>Cochineal extract</u> is the concentrated solution obtained after removing the alcohol from an aqueous-alcohol extract of cochineal, which is the dried bodies of female insect <i>Dactylopius coccus costa</i>. The extract contains at least 2% carminic acid that is considered to be responsible for the coloring principle of the extract. Cochineal extract varies in shade from orange to red depending on pH. <u>Carmine</u> consist about 50% or more of carminic acid. It is the aluminum or calcium-aluminum lake on an aluminum hydroxide substrate of the coloring principles, chiefly carminic acid, obtained by the aqueous extraction of cochineal. Carmine is useful in producing pink shades.</p>

<sup>50</sup> **Note 85:** Excluding use in surimi and fish roe products at 500 mg/kg.

<sup>51</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>52</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Carmines, INS 120</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						Carmines, especially cochineal extract, are widely used in the juice-drink category. They are used to help visually separate different lines of similar juice drinks. Carmines are a more stable color source than alternative natural colors and are technologically justified for use in beverages.  2) Use levels of carmine should be based on the colouring principle expressed in mg/kg pigment and using the assay given in the specification. In case of carmines and cochineal extract the colouring principle is carminic acid. Note 142 should be reconsidered.
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg	<b>Note BB</b>	6	200 mg/kg is the level that is technically relevant. A wide range of colours is equally justified and should be equally permitted

<b>Recommendation 3 – Carmines, INS 120</b>						
<b>Comments are requested</b> on the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
07.1.2	<b>Crackers, excluding sweet crackers</b>	200	mg/kg	<b>Note BB</b>		<b>Proposed new use. If the provision in 07.1 is discontinued, the use in 07.1.2 is technologically relevant. A wide range of colours is equally justified and should be equally permitted</b>
07.1.4	bread-type products, including bread stuffing and bread crumbs	500	mg/kg	<b>Note BB</b>	3	If the provision in 07.1 is discontinued, the use in 07.1.4 is technologically relevant. A wide range of colours is equally justified and should be equally permitted
14.1.5	<b>Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa</b>					<b>Request information on use levels and technological need.</b>
15.3	<b>Snacks – fish based</b>	200	mg/kg	<b>Note BB</b>		<b>New proposed use. 200 mg/kg is the level that is technically relevant. A wide range of colours is equally justified and should be equally permitted</b>

### CAROTENES, VEGETABLE (INS 160aii)

13. The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of vegetable carotenes.

14. The 41<sup>st</sup> JECFA (1993) determined vegetable carotenes to be acceptable for use as a colour, provided the level of use does not exceed the level normally found in vegetables.

<b>Recommendation 1 – Carotenes, Vegetable, INS 160aii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for vegetable carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
04.1.1.2	surface-treated fresh fruit		GMP	Note 16 <sup>53</sup>	6	

<sup>53</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 1 – Carotenes, Vegetable, INS 160aii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for vegetable carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.1.4	cocoa and chocolate products	1000	mg/kg		3	See recommendation 3
09.1.2	fresh mollusks, crustaceans, and echinoderms		GMP	Note 16 <sup>54</sup>	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95 <sup>55</sup>	6	
12.2	herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	500	mg/kg		3	Reassigned to subcategory only. See recommendation 3
13.1.3	formulae for special medical purposes for infants	30	mg/kg	Note 84 <sup>56</sup>	3	There are no non-standardized foods in this category. For consistency with the Draft revised Codex standard for infant formula
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	25	mg/kg		6	See recommendation 3

<b>Recommendation 2 - Carotenes, Vegetable, INS 160aii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following adopted food additive provisions for vegetable carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments		Justification provided to eWG
02.2.1.2	margarine and similar products	25	mg/kg			See recommendation 3

<b>Recommendation 3 - Carotenes, Vegetable, INS 160aii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for vegetable carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
02.2.1.2	margarine and similar products	30	mg/kg	Note CC <sup>57</sup>	3	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	100	mg/kg	Note CC	6	
04.1.2.11	fruit fillings for pastries	100	mg/kg	Note CC	6	
05.1.3	cocoa-based spreads, including fillings	100	mg/kg	Note CC	3	
05.1.4	cocoa and chocolate products	100	mg/kg	Note CC	6	
06.4.3	pre-cooked pastas and noodles and like products	1000	mg/kg		3	For consistency with the CX STAN 249
09.1.1	fresh fish	100	mg/kg	Note 4 <sup>58</sup> , 16 <sup>59</sup> , 50 <sup>60</sup> Note CC	6	
09.2.4.1	cooked fish and fish products	1000	mg/kg	Note 95	3	
12.2.2	seasoning and condiments	500	mg/kg		3	
12.10.3	fermented soybean paste (e.g., miso)	1000	mg/kg		6	Used in Miso
14.1.2.2	vegetable juice	2000	mg/kg		3	1) Potentially used as a color for vegetable juice. 2) To improve organoleptic properties of food, preferred to

<sup>54</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>55</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>56</sup> **Note 84:** For infants over 1 year of age only.

<sup>57</sup> **Note CC:** Expressed as beta-carotene.

<sup>58</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>59</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>60</sup> **Note 50:** For use in fish roe only.

<b>Recommendation 3 - Carotenes, Vegetable, INS 160aii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for vegetable carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						synthetic colourants
14.1.2.4	concentrates for vegetable juice	2000	mg/kg	<b>Note 127<sup>61</sup></b>	3	1) Potentially used as a color for vegetable 2) To improve organoleptic properties of food, preferred to synthetic colourants
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	3	1) Potentially used for potato snacks. Snacks 2) To improve organoleptic properties of food, preferred to synthetic colourants 3) A wide range of colours is equally justified and should be equally permitted.
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	20000	mg/kg		3	Color to coat
16.0	composite foods - foods that could not be placed in categories 01 - 15	1000	mg/kg		3	Used for complex foods.

<b>Recommendation 4 – Carotenes, Vegetable, INS 160aii</b>						
<b>Comments are requested</b> on the following food additive provisions for carotenes in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
<b>01.4.4</b>	<b>Cream analogues</b>	<b>20</b>	<b>mg/kg</b>	<b>Note CC</b>		<b>Proposed new use</b>
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	200	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	1320	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
05.1.2	Cocoa mixes (syrups)	100	mg/kg	<b>Note CC</b>		New proposed use. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
05.1.5	Imitation chocolate, chocolate substitute products	100	mg/kg	<b>Note CC</b>		New proposed use. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
06.4.2	dried pastas and noodles and like products	1000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
07.1.6	mixes for breads and ordinary bakery wares	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	3	Technological need is questioned. This is a basic foodstuff with wide consumption that would increase intake of colours
08.1.2	fresh meat, poultry, and game,	20	mg/kg	Note 4 <sup>62</sup> ,	6	The technological need is

<sup>61</sup> **Note 127:** As served to the consumer

<b>Recommendation 4 – Carotenes, Vegetable, INS 160aii</b>						
<b>Comments are requested</b> on the following food additive provisions for carotenes in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	comminuted			16 <sup>63</sup> & 117 <sup>64</sup>		questioned. This is a basic food and this use could mislead the consumer
11.3	<b>Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3</b>	50	mg/kg	Note CC		<b>Proposed new use</b>
14.1.3.2	vegetable nectar	2000	mg/kg		3	The technological need is questioned, as this use could mislead the consumer
14.1.3.4	concentrates for vegetable nectar	1000	mg/kg		3	The technological need is questioned, as this use could mislead the consumer
15.3	<b>Snacks - fish based</b>	<b>100</b>	<b>mg/kg</b>			<b>Proposed new use</b>

#### CAROTENOIDS (INS 160AI, 160AII, 160E, 160F)

15. The 18<sup>th</sup> JECFA (1974) assigned a group ADI of 50 mg/kg bw/d for  $\beta$ -Apo-8-carotenal (160e), synthetic  $\beta$ -Carotene (160ai), and  $\beta$ -Apo-8-carotenoic acid, methyl or ethyl ester (160f). The 57<sup>th</sup> JECFA (2001) assigned  $\beta$ -Carotene from *Blakeslea trispora* (160aii) to the group ADI for synthetic  $\beta$ -carotenes. These substances are collectively referred to in the GSFA as carotenoids.

<b>Recommendation 1 – Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
02.2.1.2	margarine and similar products	1000	mg/kg		6	See recommendation 2
05.1.1	cocoa mixes (powders) and cocoa mass/cake	300	mg/kg		6	There are no non-standardized foods in this category and the relevant commodity standards do provide for the use of colors
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 95 <sup>65</sup>	6	These are consequential effects of endorsing a provision for carotenoids in food category 09.2, See recommendation 2
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 41 <sup>66</sup>	6	
09.2.4.1	cooked fish and fish products	500	mg/kg		6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	250	mg/kg		6	
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg			
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 22 <sup>67</sup>	6	
09.3.3	salmon substitutes, caviar, and other fish roe products	500	mg/kg		6	These are consequential effects of endorsing a provision for

<sup>62</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>63</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>64</sup> **Note 117:** Except for use in loganiza (fresh, uncured sausage) at 1000 mg/kg.

<sup>65</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>66</sup> **Note 41:** Use in breading or batter coatings only.

<sup>67</sup> **Note 22:** For use in smoked fish products only.



<b>Recommendation 1 – Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	500	mg/kg		6	carotenoids in food category 09.3. See recommendation 2

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg	<b>Note 52</b> <sup>68</sup>	6	
01.3.2	beverage whiteners	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b> <sup>69</sup>	3	1) Permitted in food category 1.5.2 - milk and cream powder analogues so provision in this food category should be retained. 2) <i>Carotenes, Natural Extracts, (Vegetable) 160a(ii)</i> are already permitted at 1000 mg/kg since 2005. Other carotenes perform the same function and should be listed at the same level in the GSFA. 3) Emulsified color preparations are used in beverages. 4) Permitted in food category 1.5.2 - milk and cream powder analogues so provision in this food category should be retained and provides appropriate color to the food. 5) <i>Carotenes, Natural Extracts, (Vegetable) 160a(ii)</i> are already permitted at 1000 mg/kg since 2005. Other carotenes perform the same function and should be listed at the same level in the GSFA
01.4	cream (plain) and the like	<b>20</b>	<b>mg/kg</b>	<b>Note CC</b>	3	1) Carotenoids are routinely used as colourant in 1.4.2 - cream products and 1.4.4 - cream analogues as a preferred alternative to artificial colouring agents. Continuation of this provision is strongly supported. 2) Color for cream. 3) Carotenoids are routinely used as colorant in 1.4.2 - cream products and 1.4.4 - cream analogues as a preferred alternative to artificial coloring agents in order to standardize the color of these products 4) Colours are used to standardize the colour.
01.5.2	milk and cream powder	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	3	Colours are used to standardize

<sup>68</sup> **Note 52:** Excluding chocolate milk

<sup>69</sup> **Note CC:** Expressed as beta-carotene.

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	analogues					the colour
01.6.1	unripened cheese	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	6	1) Colours are used to standardize the colour 2) Standardized cheeses subject to this category provide for the use of carotenoids
01.6.2.1	ripened cheese, includes rind	100	mg/kg	<b>Note CC</b>	6	Colours are used to standardize the colour
01.6.2.2	rind of ripened cheese	<b>500</b>	<b>mg/kg</b>	<b>Note CC</b>	3	
01.6.2.3	cheese powder (for reconstitution; e.g., for cheese sauces)	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	3	Various cheeses are used as raw material to make powder, therefore same level of colour are present.
01.6.4	processed cheese	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	6	Colour supports the various flavour and types of products. Various cheeses are used as raw material therefore same level of colour is present. A wide range of colours is equally justified and should be equally permitted.
01.6.5	cheese analogues	<b>200</b>	<b>mg/kg</b>	<b>Note CC</b>	3	1.6.5 comprises new varieties of cheese analogues, where milk fat is replaced by vegetable fat. Such variety of cheese-like products use colour to support the various flavour and types of products, just as in traditional cheese. A wide range of colours are equally justified and should be equally permitted.
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	<b>50</b>	<b>mg/kg</b>	<b>Note CC</b>	6	
02.2.1.2	margarine and similar products	25	mg/kg	<b>Note CC</b>	3	These carotenoids are already permitted in <i>Butter and concentrated butter</i> at 25mg/kg. They perform in these blends the same technological function. Therefore the same levels for blends of butter and margarine should be used.
02.2.1.3	blends of butter and margarine	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	6	1) Permitted in food category 2.1 – fats and oils essentially free of water so provision in this food category should be retained. 2) Carotenoids are already permitted in <i>Butter and concentrated butter</i> at 25 mg/kg. They perform in these blends the same technological function. Therefore the same levels for blends of butter and margarine should be used. 3) Used for mixtures of butter and margarine. 4) To provide colour (other colours are permitted). 5) Needed to standardize the color of these products, and permitted in food category 2.1 (fats and oils essentially free of water) so provision in this food category should be retained at a level of 1000 mg/kg, as found in the above categories.
02.2.2	emulsions containing less than 80% fat	<b>25</b>	<b>mg/kg</b>	<b>Note CC</b>	6	1) There is a technological need to coloring variety of products with flavors.

<b>Recommendation 2 - Carotenoids, INS 160ai, 160a(ii), 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>2) Used for emulsions</p> <p>3) This food category includes reduced-fat counterparts of butter, margarine, and their mixtures. Since such products are also derived from butter (e.g., "butterine," a spreadable butter blend with vegetable oils) it makes sense to permit carotenoids at the same level as in butter and concentrated butter.</p> <p>4) To provide colour (other colours are permitted)</p> <p>5) This food category includes reduced-fat counterparts of butter, margarine, and their mixtures. Since such products are also derived from butter (e.g., "butterine," a spreadable butter blend with vegetable oils) it makes sense to permit carotenoids at the same level as in butter and concentrated butter.</p>
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	<b>200</b>	<b>mg/kg</b>	<b>Note CC</b>	6	<p>1) For this food category <i>Carotenes, Natural Extracts, (Vegetable) 160a(ii)</i> are already permitted at 1000 mg/kg. Other carotenes perform the same technological function and should therefore be listed at the same level in the GSFA. It should be noted that some national legislations permit 200 mg/kg.</p> <p>2) Used for fat emulsions.</p> <p>3) To provide colour (other colours are permitted)</p> <p>4) For this food category <i>Carotenes, Natural Extracts, (Vegetable) 160a(ii)</i> are already permitted at 1000 mg/kg. Other carotenes perform the same technological function and should therefore be listed at the same level in the GSFA. It should be noted that some national legislations permit 200 mg/kg.</p>
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	150	mg/kg	<b>Note CC</b>	6	
03.0	edible ices, including sherbet and sorbet	200	mg/kg	<b>Note CC</b>	6	
04.1.2.3	fruit in vinegar, oil, or brine	1000	mg/kg		3	
04.1.2.5	jams, jellies and marmelades	<b>200</b>	<b>mg/kg</b>		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg		6	
04.1.2.7	candied fruit	200	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	150	mg/kg		6	
04.1.2.11	fruit fillings for pastries	<b>100</b>	<b>mg/kg</b>	<b>Note CC</b>	6	

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
04.2.1.2	surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	500	mg/kg	<b>Note 4<sup>70</sup>, &amp;16<sup>71</sup></b>	6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	50	mg/kg	<b>Note CC</b>	6	
05.1.2	cocoa mixes (syrups)	100	mg/kg	<b>Note CC</b>	6	1) Potentially used in cocoa mixtures 2) Colour supports the various flavour and types of products.
05.1.3	cocoa-based spreads, including fillings	100	mg/kg	<b>Note CC</b>	6	1) Potentially used for fillings 2) Colour supports the various flavour and types of products.
05.1.4	cocoa and chocolate products	100	mg/kg	<b>Note CC</b>	6	1) Used for chocolate products. 2) Carotenoids are naturally occurring red, yellow and orange pigments. Carotenoids are used to color beverages, frozen foods, fruit fillings, candies, baked goods and food supplements. Colour is an important characteristic of food that enhances the appeal of the food and our enjoyment of eating. Colour additives are used in foods to offset color loss that can occur due to exposure to light, air, temperature extremes, and moisture and storage conditions. Colour additives enhance colors that occur naturally and correct natural variations in color. Colour additives also provide a colorful identity to foods that would otherwise be virtually colorless. 3) Colour supports the various flavour and types of products.
05.1.5	imitation chocolate, chocolate substitute products	100	mg/kg	<b>Note CC</b>	6	Used for imitation chocolates
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	100	mg/kg	<b>Note CC</b>	6	Colour supports the various flavour and types of products.
05.3	chewing gum	100	mg/kg	<b>Note CC</b>	6	1) <b>Technological need/level justification</b> Beta-carotene is mainly used as a yellow colour in chewing gum, but since it is oil soluble, can be encapsulated in gum base and loses some of its appearance value as a colour. More colour is needed to mask white sweeteners and brown /cream gum base when the colour is added to the formulation during mixing. To

<sup>70</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>71</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aai, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>achieve bright consumer acceptable shades of colour, the usage level is much higher in chewing gum, especially to make attractive appearance products such as lemon of orange flavoured gums. The range of carotenoids is utilized in varying levels and blends to achieve the range of colours desired. Since chewing gum base absorbs the colour, chewing gum requires significant quantities to mask and overcome dull shades when low quantities of colours are used. A minimum of 500 mg/kg is needed to guaranty an acceptable color for the consumer.</p> <p><b>Safety</b> JECFA assigned a group ADI of 5 mg/kg body weight of carotenoids INS 160 e, INS 160 f, INS 160 ai, and INS 160 aii.</p> <p>Consumption of a 3mg of chewing gum<sup>72</sup> containing 500 mg of cartenoids by a 60 kg adult would result in ingestion of 1.5 mg of colour or about 0.5 % of the ADI assuming all the colour is extracted from the gum, and assuming that all chewing gum consumed would be coloured using carotenoids.</p> <p>2) Colour supports the various flavour and types of products.</p>
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	100	mg/kg	Note CC	6	<p>1)Used for sweet sauces 2) Colour supports the various flavour and types of products.</p>
06.3	breakfast cereals, including rolled oats	200	mg/kg		6	
06.4.3	pre-cooked pastas and noodles and like products	1200	mg/kg	Note CC	3	The Codex standard for Instant Noodles has an ML of 1200 mg/kg as Carotenoid.
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	150	mg/kg	Note CC	6	
06.6	batters (e.g., for breading or batters for fish or poultry)	500	mg/kg		6	
07.2	fine bakery wares (sweet, salty, savoury) and mixes	100	mg/kg	Note CC	6	
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	100	mg/kg	Note 118 <sup>73</sup>	6	
08.3.1.2	cured (including salted) and dried non-heat treated	20	mg/kg		6	

<sup>72</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: “ Guidelines for simple evaluation of food additive intake” and confirmed by an EEC survey conducted in some EEC countries.

<sup>73</sup> **Note 118:** Except for use in tocino (fresh, cured sausage) at 1000 mg/kg.

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aai, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	processed comminuted meat, poultry, and game products					
08.3.1.3	fermented non-heat treated processed comminuted meat, poultry, and game products	20	mg/kg		6	
08.3.2	heat-treated processed comminuted meat, poultry, and game products	20	mg/kg		6	
09.1.1	Fresh fish	300	mg/kg	<b>Notes 50<sup>74</sup></b>	6	
09.2	processed fish and fish products, including mollusks, crustaceans, and echinoderms	<b>100</b>	<b>mg/kg</b>	<b>Note 95<sup>75</sup> &amp; CC</b>	3	
09.3	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	<b>100</b>	<b>mg/kg</b>	<b>Note 95, &amp; CC</b>	3	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	<b>100</b>	<b>mg/kg</b>	<b>Note 95, &amp; CC</b>	6	
10.1	fresh eggs	1000	mg/kg	Note 4 <sup>76</sup>	3	
10.2	egg products	1000	mg/kg		3	Used for egg products
10.4	egg-based desserts (e.g., custard)	150	mg/kg		6	1) For this food category <i>Carotenes, Natural Extracts, (Vegetable) 160a(ii)</i> are already permitted at 150 mg/kg. Other carotenes perform the same technological function and should therefore be listed at the same level in the GSFA 2) Used for custards
12.2.2	seasonings and condiments	500	mg/kg		6	
12.4	mustards	300	mg/kg		6	
12.5	soups and broths	300	mg/kg		6	
12.6	sauces and like products	500	mg/kg		6	
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3	<b>50</b>	<b>mg/kg</b>	<b>Note CC</b>	3	
12.9.5	other protein products	100	mg/kg		6	Used for other protein products
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	50	mg/kg	<b>Note CC</b>	6	
13.4	dietetic formulae for slimming purposes and weight reduction	50	mg/kg	<b>Note CC</b>	6	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	300	mg/kg	<b>Note CC</b>	6	
13.6	food supplements	300	mg/kg	<b>Note CC</b>	6	Carotenoids as beta carotene (INS 160ai and 160aai), $\beta$ -Apo-8-carotenol (160e) and $\beta$ -Apo-8-carotenoic acid, methyl or ethyl ester (160f) are used in food supplements (category 13.6) as a colorant. The main uses are to colour the shells of

<sup>74</sup> **Note 50:** For use in fish roe only

<sup>75</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>76</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 2 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>food supplement capsules and to colour the resulting solution from dissolving/effervescent food supplement tablets.</p> <p>Usage level in capsules varies depending on the thickness of the capsule shells and in effervescent tablets the depth of colour required for the drink.</p> <p>However, all applications of 160ai and 160aii should not exceed 600mg / kg and those for 160e and 160f should not exceed 300mg / kg. At these levels the average intake from supplements would be less than 5mg and 2.5mg respectively.</p>
14.1.3.2	vegetable nectar	100	mg/kg	<b>Note CC</b>	6	Used for vegetable nectars
14.1.3.4	concentrates for vegetable nectar	100	mg/kg	<b>Note CC &amp; 127<sup>77</sup></b>	6	Used for vegetable nectar concentrates
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	100	mg/kg		6	
14.2.2	cider and perry	200	mg/kg	<b>Note CC</b>	6	Potentially used for pear liquors.
14.2.4	wines (other than grape)	200	mg/kg		6	Possibly used in fruit wines
14.2.6	distilled spirituous beverages containing more than 15% alcohol	200	mg/kg		6	1) Potentially used in alcoholic drinks. 2) To provide colour (other colours are permitted)
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg		6	Potentially used in alcoholic drinks
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	100	mg/kg	<b>Note CC</b>	3	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg	<b>Note CC</b>	6	

<b>Recommendation 3 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
<b>Comments are requested</b> on the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.4.4	Cream analogues	20	mg/kg			<b>Proposed new use. Colours are used to standadize the colour.</b>
02.1.2	vegetable oils and fats	1000	mg/kg		6	Request information on technological need. This use could mislead the consumer. ML expressed on beta-carotene level should be 250 mg/kg
02.1.3	lard, tallow, fish oil, and other animal fats	1000	mg/kg		6	Request information on technological need. This use could mislead the consumer. ML expressed on beta-carotene level should be 250 mg/kg
04.1.2.4	canned or bottled	200	mg/kg		6	Request information on technological need. This use

<sup>77</sup> **Note 127:** As served to the consumer

<b>Recommendation 3 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
<b>Comments are requested</b> on the following food additive provisions for carotenoids in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max Level</b>		<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	(pasteurized) fruit					could mislead the consumer.
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	1000	mg/kg		3	Information on the technological need. This use could mislead the consumer.
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	50	mg/kg	Note CC	6	Information on the technological need. This use could mislead the consumer.
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	50	mg/kg	Note CC	3	Information on the technological need. This use could mislead the consumer.
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	50	mg/kg	Note CC	6	Information on the technological need. This use could mislead the consumer.
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	50	mg/kg	Note CC	3	Information on the technological need. This use could mislead the consumer.
07.1.1	bread and rolls	35	mg/kg		6	Information on the technological need. This use could mislead the consumer.
07.1.2	crackers, excluding sweet crackers	1000	mg/kg		3	Information on the technological need. Basic foods with wide consumption that would increase intake of colours.
07.1.3	other ordinary bakery products (e.g., bagels, pita, English muffins)	1000	mg/kg		3	Information on the technological need. Basic foods with wide consumption that would increase intake of colours.
07.1.4	bread-type products, including bread stuffing and bread crumbs	1000	mg/kg	Note 116 <sup>78</sup>	3	Information on the technological need. Basic foods with wide consumption that would increase intake of colours.
07.1.5	steamed breads and buns	1000	mg/kg		3	Information on the technological need. Basic foods with wide consumption that would increase intake of colours.
07.1.6	mixes for breads and ordinary bakery wares		GMP		6	Information on the technological need. Basic foods with wide consumption that would increase intake of colours.
08.1.2	fresh meat, poultry, and game, comminuted	100	mg/kg	Note 117 <sup>79</sup> & 4 <sup>80</sup> , 16 <sup>81</sup>	6	Information on the technological need. This use could mislead the consumer and whether Note

<sup>78</sup> **Note 116:** For use in doughs only.



<b>Recommendation 3 - Carotenoids, INS 160ai, 160aii, 160e, 160f</b>						
<b>Comments are requested</b> on the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						117 should be deleted.
08.4	Edible casings (e.g., sausage casings)	100	mg/kg	Note CC		New proposed use
09.1.2	Fresh mollusks, crustaceans and echinoderms	100	mg/kg	Note 4, 16 & CC		New proposed use
11.3	Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	50	mg/kg			New proposed use
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	50	mg/kg			New proposed use
11.6	table-top sweeteners, including those containing high-intensity sweeteners	300,	mg/kg			New proposed use. Tabletop sweeteners are frequently used in home cooking and baking. The use of carotenoids in tabletop sweeteners allows the preparation of products appealing to the consumer. It is requested to allow for use of Carotenoids in tabletop sweeteners (Cat. 11.6), up to a maximum use level of 300 mg/kg.
14.2.1	Beer and malt beverages	200	mg/kg			New proposed use. Carotenes vegetable is already adopted.
16.0	composite foods - foods that could not be placed in categories 01 - 15	500	mg/kg		6	Justification should be provided why the carry over wouldn't be sufficient.

### CHLOROPHYLL, COPPER COMPLEXES (INS 141i & 141ii)

16. The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of chlorophylls, copper complexes.

17. The 13<sup>th</sup> JECFA (1969) assigned an ADI of 15 mg/kg bw/d for chlorophylls, copper complexes (141i & 141ii).

<b>Recommendation 1 – Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.2.1	ripened cheese, includes rind	50	mg/kg		3	
01.6.4	processed cheese	50	mg/kg		3	Reassigned to flavoured processed cheese subcategory. See recommendation 2
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	500	mg/kg		3	See recommendation 2
02.1.2	vegetable oils and fats		GMP		6	Use could mislead the consumer
02.1.3	lard, tallow, fish oil, and other animal fats		GMP		6	Use could mislead the consumer
02.2.1.3	blends of butter and margarine		GMP		6	Use could mislead the consumer
02.2.2	emulsions containing less than 80% fat		GMP		6	Use could mislead the consumer

<sup>79</sup> **Note 117:** Except for use in loganiza (fresh, uncured sausage) at 1000 mg/kg.

<sup>80</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>81</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 1 – Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions		GMP		6	Use could mislead the consumer
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7		GMP		6	See recommendation 2
04.1.1.2	surface-treated fresh fruit		GMP	Note 16 <sup>82</sup>	6	
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	100	mg/kg	Notes 62 & 89 <sup>83</sup>	6	Use could mislead the consumer
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		6	
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	100	mg/kg	Note 62	6	Use could mislead the consumer
06.3	breakfast cereals, including rolled oats	100	mg/kg		3	
06.4.2	dried pastas and noodles and like products		GMP		6	This is a basic food and the use will increase the intake of the colour. Moreover, this use could mislead the consumer.
06.4.3	pre-cooked pastas and noodles and like products		GMP		6	See recommendation 2
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	6.4	mg/kg	Note 62	6	See recommendation 2
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95 <sup>84</sup>	6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	40	mg/kg	Note 62	6	
12.5.1	ready-to-eat soups and broths, including canned, bottled, and frozen	400	mg/kg		6	Consequential effect of adoption of provision for 12.5. See recommendation 2
12.5.2	mixes for soups and broths	100	mg/kg		3	

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt,	50	mg/kg	Note 52 <sup>85</sup>	3	100 mg/kg is necessary to achieve coloring effect

<sup>82</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>83</sup> **Note 89:** Except for use in dried tangle (KONBU) at 150 mg/kg.

<sup>84</sup> **Note 95:** For use in surimi and fish roe products only.

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	whey-based drinks)					
01.6.1	unripened cheese	50	mg/kg		3	For consistency with CX STAN 221
01.6.2.1	ripened cheese, includes rind	15	mg/kg		6	1) Chlorophylls are used in cheeses such as Feta at this level to make a whiter cheese. This is necessary due to the nature of the milk (creamy in colour) in some parts of the world, and the need to produce a cheese with colour characteristics that consumers typically associate with this type of cheese. 2) Chlorophylls are used in cheeses such as Feta at this level to make a whiter cheese. This is necessary due to the nature of the milk (creamy in colour) in some parts of the world with higher milkfat levels and a more yellow appearance. Chlorophylls provide a whitening effect to achieve a color characteristic that consumers typically associate with this type of cheese.
01.6.2.2	rind of ripened cheese	75	mg/kg		3	
01.6.2.3	cheese powder (for reconstitution; e.g., for cheese sauces)	50	mg/kg		3	
<b>01.6.4.2</b>	<b>Flavoured processed cheese, including containing fruit, vegetables, meat, etc.</b>	<b>50</b>	<b>mg/kg</b>		<b>3</b>	<b>New entry, subcategory of proposed draft provision in food category 01.6.4</b>
01.6.5	cheese analogues	50	mg/kg		3	
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	200	mg/kg		6	1) Chlorophylls are used as natural colours in fruit and flavoured yogurt and dairy based desserts eg (lime/citrus flavours). With manufacturers now primarily relying on natural rather than synthetic colouring agents, continuation of this provision is strongly supported. 2) To provide colour (other colours are permitted); 3) Chlorophylls are used as natural colours in fruit and flavoured yogurts and dairy based desserts eg (lime/citrus flavours). With manufacturers now primarily relying on natural rather than synthetic colouring agents, continuation of this provision is strongly supported
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	500	mg/kg		3	
03.0	edible ices, including sherbet and sorbet	500	mg/kg		3	
04.1.2.5	jams, jellies and marmelades	200	mg/kg		6	To improve organoleptic properties of food
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	150	mg/kg		6	To provide colour (other colours are permitted) To improve organoleptic properties of food

<sup>85</sup> **Note 52:** Excluding chocolate milk

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
04.1.2.7	candied fruit	250	mg/kg		3	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	150	mg/kg	Note 62 <sup>86</sup>	6	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
05.2.1	hard candy	700	mg/kg		6	
05.2.2	soft candy	100	mg/kg		6	
05.2.3	nougats and marzipans	100	mg/kg		6	
05.3	chewing gum	700	mg/kg		6	<p><b>Technological need/level justification</b> Copper complexes of Chlorophylls and Chlorophyllins (E141) are used as colours in pellet gum and slab gum.</p> <p>To fulfill this function, it is necessary that a level be allowed of 700mg/kg of chewing gum. This level gives an effective and acceptable level of colour to the product which is perceived by consumers as being the most appropriate to the product type. Also, copper complexes of Chlorophylls and Chlorophyllins are well known absorbers of odors and work effectively in candy and gum products.</p> <p><b>Safety</b> JECFA assigned an ADI of 15 mg/kg body weight for chlorophylls, copper complexes. Consumption of a 3g piece<sup>87</sup> of gum containing 700 mg/kg of the colour by a 60 kg adult would result in ingestion of 2.1 mg or about 0.2% of the ADI. This assumes 100% extraction of the colour during chewing, and that all chewing gum would be coloured using Copper complexes of Chlorophylls and Chlorophyllins.</p>
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	100	mg/kg		3	
06.4.3	pre-cooked pastas and noodles and like products	100	mg/kg		3	For consistency with the Codex Standard for Instant Noodles
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	75	mg/kg		3	
07.2	fine bakery wares (sweet, salty, savoury) and mixes	75	mg/kg		3	
09.2.3	frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms	40	mg/kg	<b>Note 95</b> <sup>88</sup>	3	
09.2.4.1	cooked fish and fish products	30	mg/kg	Note 62 &	6	

<sup>86</sup> **Note 62:** As copper.

<sup>87</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: "Guidelines for simple evaluation of food additive intake" and confirmed by an EEC survey conducted in some EEC countries.

<sup>88</sup> **Note 95:** For use in surimi and fish roe products only.

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
				<b>95</b>		
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	40	mg/kg	Note 62 & <b>95</b>	6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	200	mg/kg		3	
09.3.1	fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	40	mg/kg	<b>Note 16</b>	3	
09.3.2	fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	40	mg/kg	<b>Note 16</b>	3	
09.3.3	salmon substitutes, caviar, and other fish roe products	200	mg/kg		3	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	75	mg/kg	<b>Note 95</b>	3	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	<b>Note 95</b>	6	
10.4	egg-based desserts (e.g., custard)	300	mg/kg	Note 2 <sup>89</sup>	3	
12.2.2	seasonings and condiments	<b>500</b>	<b>mg/kg</b>		3	
12.4	mustards	<b>500</b>	<b>mg/kg</b>		6	
<b>12.5</b>	<b>soups and broths</b>	<b>400</b>	<b>mg/kg</b>	<b>Note 127</b> <sup>90</sup>		Consistency with commodity standard for soups and broths
12.6	sauces and like products	100	mg/kg		3	
13.6	food supplements	<b>500</b>	<b>mg/kg</b>	<b>Note 3</b> <sup>91</sup>	6	1) To provide colour (other colours are permitted) 2) Chlorophylls and their copper complexes (INS: 141i and 141ii) are used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post-production handling and for the consumer's own control and recognition.

<sup>89</sup> **Note 2:** On dry ingredient, dry weight, dry mix or concentrate basis.

<sup>90</sup> **Note 127** As served to the consumer.

<sup>91</sup> **Note 3:** Surface treatment

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>Usage level varies depending on the thickness of the coating or shell and the intensity of the colour required. However, all applications should be accommodated in a maximum level of 500mg/kg based on the content of the colour component. Chlorophyll is a preferred alternative to artificial colours.</p> <p>3) Copper complexes of chlorophylls provide a blue green hue and are used as color additives in confectionary, chewing gum, processed food, vegetable oils and food supplements. Copper chlorophylls provide brighter and more stable colors than un-coppered colors.</p> <p>Copper complexes of chlorophylls are approved for use in foodstuffs and food supplements at quantum satis in the European Union as listed in EU-DIR 94/26 European Parliament and Council Directive of 30 June 1994 on Colours. In addition, copper complexes of chlorophylls are approved for use in food supplements in Brazil, Turkey, Bulgaria, Romania, Israel, Iceland and in dietary supplements in Canada.</p> <p>Chlorophylls, copper complexes are used in many commercial food products, including food supplements.</p> <p>The following example shows daily intake using a typical coating system containing 6% chlorophylls, copper complexes applied to a food supplement with a 4% weight gain assuming a daily food supplement consumption of 3 g.</p> <p>3 g (food supplement) x 4.0% (coating) = 0.12 g coating  0.12 g coating x 1000 mg=120 mg coating  120 mg coating x 0.06 (chlorophylls) = 7.20 mg chlorophylls /Day</p> <p>Chlorophylls, copper complexes have been reviewed by JECFA and deemed safe for intended uses and assigned an ADI of 15 mg/kg body weight per day. The JECFA ADI multiplied by a 60 kg body weight would result in a daily amount of 900 mg/day. The proposed use of 7.20 mg per day is well under 900 mg/day.</p>
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated	300	mg/kg		6	

<b>Recommendation 2 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
	drinks					
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	350	mg/kg		3	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		3	

<b>Recommendation 3 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
<b>Comments are requested</b> on the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
04.2.1.2	Surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds		GMP	Notes 4 <sup>92</sup> & 16 <sup>93</sup>		Proposed New Use
05.1.2	cocoa mixes (syrups)	6.4	mg/kg	Note 62	3	1) Usage standard is set as for Japan. 0.0064g/kg as for copper 2) 100 mg/kg expressed as pigment. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
05.1.3	cocoa-based spreads, including fillings	6.4	mg/kg	Note 62	3	1) Usage standard is set as for Japan. 0.0064g/kg as for copper 2) 100 mg/kg expressed as pigment Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
05.1.4	cocoa and chocolate products	700	mg/kg		6	1) Usage standard is set as for Japan. 0.0010g/kg as for copper. Usage standard for chocolate (per 1kg as a copper) is, under 0.0010g/kg for copper chlorophyll, under 0.0064g/kg for sodium copper chlorophyllin 2) Copper complexes of chlorophylls provide a blue green hue and are used as color additives in confectionary, chewing gum, processed food, vegetable oils and food supplements. Copper chlorophylls provide brighter and more stable colors than un-coppered colors. 3) 500 mg/kg expressed as pigment. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted

<sup>92</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>93</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 3 - Chlorophyll, Copper Complexes, INS 141i, 141ii</b>						
<b>Comments are requested</b> on the following food additive provisions for copper complexes of chlorophyll in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
05.1.5	imitation chocolate, chocolate substitute products	700	mg/kg		6	1) Usage standard is set as for Japan. 0.0010g/kg as for copper. Usage standard for chocolate (per 1kg as a copper) is, under 0.0010g/kg for copper chlorophyll, under 0.0064g/kg for sodium copper chlorophyllin. 2) To provide colour (other colours are permitted) 3) Copper complexes of chlorophylls provide a blue green hue and are used as color additives in confectionary, chewing gum, processed food, vegetable oils and food supplements. Copper chlorophylls provide brighter and more stable colors than un-coppered colors. 4) 500 mg/kg expressed as pigment. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
07.1.4	bread-type products, including bread stuffing and bread crumbs	6.4	mg/kg	Note 62	3	1) This is a basic food and the use will increase the intake of the colour. Moreover, this use could mislead the consumer. 2) 75 mg/kg expressed as pigment
14.1.5	<b>Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa</b>					<b>Proposal to request information on use levels and technological need</b>
15.3	<b>Snacks –fish based</b>	<b>350</b>	<b>mg/kg</b>			<b>Proposed new use. This level is needed to achieve the colour. Colour supports the various flavour and types of products</b>

### ERYTHROSINE (INS 127)

18. The 28<sup>th</sup> CAC has adopted one provision in the GSFA for the use of erythrosine.

19. The 36<sup>th</sup> JECFA (1990) assigned an ADI of 0.1 mg/kg bw/d for erythrosine.

20. The 30<sup>th</sup> CCFAC requested that JECFA perform intake assessments for erythrosine based on the pending levels of maximum use in the GSFA and national food consumption data. The 53<sup>rd</sup> JECFA (1999) concluded that long-term intake of erythrosine is unlikely to exceed the ADI, as erythrosine would be used in only a limited number of foods. However, they noted that the intake of erythrosine could exceed the ADI of 0-0.1 mg/kg bw if the maximum limits proposed in the draft GSFA were widely adopted at the national level.

<b>Recommendation 1 – Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for erythrosine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg		6	
09.3.3	salmon substitutes, caviar, and other fish roe products	300	mg/kg		6	
15.1	snacks - potato, cereal, flour or starch based (from roots and	300	mg/kg		6	



<b>Recommendation 1 – Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
	tubers, pulses and legumes)					
16.0	composite foods - foods that could not be placed in categories 01 - 15	300	mg/kg	Note 2 <sup>94</sup>	6	

<b>Recommendation 2 - Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	300	mg/kg		6	Used as a color for e.g. strawberry flavor of red color flavored milk beverages.
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	300	mg/kg		6	Color for ice cream and fruits with fruit sauce.
02.1.3	lard, tallow, fish oil, and other animal fats	300	mg/kg		3	Potentially used for colored lard, tallow, fish oil, and other animal fats by using the fat emulsion color preparations
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	300	mg/kg		6	Potentially used for colored fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions by using the fat emulsion color preparations
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	300	mg/kg		6	Used for creams of e.g. cakes by using the fat emulsion colors.
03.0	edible ices, including sherbet and sorbet	300	mg/kg		6	
04.1.2.4	canned or bottled (pasteurized) fruit	300	mg/kg	<b>Note 54</b> <sup>95</sup>	6	
04.1.2.5	jams, jellies and marmelades	400	mg/kg		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	300	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	300	mg/kg		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	300	mg/kg		6	
04.1.2.11	fruit fillings for pastries	300	mg/kg		6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	300	mg/kg		6	
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	300	mg/kg		3	

<sup>94</sup> **Note 2:** On dry ingredient, dry weight, dry mix or concentrate basis.

<sup>95</sup> **Note 54** For use in cocktail cherries and candied cherries only.

<b>Recommendation 2 - Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for erythrosine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	300	mg/kg		6	<p>1) Candies are colored and sold in great number. Candies, nougats.</p> <p>2) Erythrosine is used in hard candy as a colour retention agent to stabilize and fix the red colour.</p> <p>3) Erythrosine is widely used as a coloring agent in confections providing a unique bright pink hue. Erythrosine has good stability to heat. Synthetic colors are widely used because they are brighter, more uniform and encompass a wider range of hues than natural colors. If the CCFA discontinues work on erythrosine, significant problems will result with the availability of food products in the marketplace for countries adopting the GSFA.</p>
05.3	chewing gum	100	mg/kg		6	<p>1) This additive is needed to obtain desired red, pink, and purple shades in certain chewing gum products. The bright shade of erythrosine is unique, and it is useful in producing clean, bright red, pink, and purple shades. Erythrosine is one of only a few synthetic red colours that are available for use in chewing gum. The General Standard on Food Additives should allow for its continued use in chewing gum, so as to give manufacturers needed flexibility as they design products for various markets. Erythrosine has a relatively low JECFA ADI, set at 0-0.1 mg/kg body weight (1990). We note that dietary exposure to erythrosine attributable to chewing gum is quite low. For example, a three-gram piece of chewing gum containing erythrosine at 100 mg/kg would contain only 0.3 mg of erythrosine. For a 60-kg adult, this would correspond to 0.005 mg/kg b.w., or 5% of the ADI. For a 30-kg child, this would correspond to 0.01 mg/kg b.w., or 10% of the ADI. By far, not all chewing gum contains erythrosine, so a consumer is not likely to ingest erythrosine from chewing gum every day. Furthermore, not all of the colouring present in chewing gum is typically chewed out, as is evidenced by the retention of colour in chewing gum after it has been chewed.</p> <p>2) Erythrosine is widely used as a coloring agent in confections providing a unique bright pink hue. Erythrosine has good stability to heat. Synthetic colors are widely</p>

<b>Recommendation 2 - Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for erythrosine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						used because they are brighter, more uniform and encompass a wider range of hues than natural colors. If the CCFA discontinues work on erythrosine, significant problems will result with the availability of food products in the marketplace for countries adopting the GSFA.
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	300	mg/kg		6	
06.3	breakfast cereals, including rolled oats	300	mg/kg		6	Used for Colored cereals
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	300	mg/kg		6	Potentially colored for desserts as berry flavors.
08.2	processed meat, poultry, and game products in whole pieces or cuts	30	mg/kg		6	To improve organoleptic properties of food, most stable and inexpensive colourant. Used in protein-rich products aimed at low-income groups.
08.3	processed comminuted meat, poultry, and game products	<b>300</b>	<b>mg/kg</b>		6	1) Used for processed meat and sold. 2) To improve organoleptic properties of food, most stable and inexpensive colourant. Used in protein-rich products aimed at low-income groups.
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	300	mg/kg		6	Potentially used for coloring syrups.
12.2	herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	300	mg/kg		6	Potentially colored for spices.
13.6	food supplements	300	mg/kg		6	1) Potentially used in e.g., colored tablets. 2) Erythrosine (INS: 127) is used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post-production handling and for the consumer's own control and recognition. Usage level varies depending on the thickness of the coating or shell and the intensity of the colour required. However, all applications should be accommodated in a maximum level of 500mg/kg based on the content of the colour component. 3) Erythrosine is widely used as a coloring agent in food supplements providing a unique bright pink hue. Erythrosine has good stability to heat. Synthetic colors are widely used because they are

<b>Recommendation 2 - Erythrosine, INS 127</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						brighter, more uniform and encompass a wider range of hues than natural colors. If the CCFA discontinues work on erythrosine, significant problems will result with the availability of food products in the marketplace for countries adopting the GSFA.
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	300	mg/kg		6	1) Potentially colored for e.g., high-calorie energy drinks. 2) While we understand that erythrosine is permitted in some countries in this category and may be used in certain sports beverages, we can accept the recommendation to discontinue due to the low ADI and the limited use of this color in 14.1.4 (our members did not report any current use). 3) These drinks are designed for use by individuals who are in a specific physiological condition, due to the expenditure of intense muscular effort.

**FAST GREEN FCF (INS 143)**

21. The 30<sup>th</sup> JECFA (1986) assigned an ADI of 25 mg/kg bw/d for fast green FCF.

<b>Recommendation 1 – Fast Green FCF, INS 143</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for fast green FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
06.4.3	pre-cooked pastas and noodles and like products	100	mg/kg		6	See Recommendation 2
07.1.1	bread and rolls	100	mg/kg		8	Consequential effect if recommendation 2 for category 07.0 is endorsed.
07.2	fine bakery wares (sweet, salty, savoury) and mixes	100	mg/kg		8	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg		6	
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg		6	

<b>Recommendation 2 – Fast Green FCF, INS 143</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following food additive provisions for fast green FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
07.1.1	bread and rolls	100	mg/kg		8	Consequential effect if recommendation 3 for category 07.0 is endorsed.
07.2	fine bakery wares (sweet, salty, savoury) and mixes	100	mg/kg		8	

<b>Recommendation 3 - Fast Green FCF, INS 143</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for fast green FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	100	mg/kg		6	

<b>Recommendation 3 - Fast Green FCF, INS 143</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for fast green FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	100	mg/kg		6	
04.1.2.7	candied fruit	100	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	100	mg/kg		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	100	mg/kg		6	
04.1.2.11	fruit fillings for pastries	100	mg/kg		6	
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	<b>100</b>	<b>mg/kg</b>		3	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	100	mg/kg		6	
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	100	mg/kg		6	
06.4.2	dried pastas and noodles and like products	100	mg/kg		6	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
06.4.3	pre-cooked pastas and noodles and like products	<b>300</b>	<b>mg/kg</b>		3	1): To align with Instant Noodles Std. 2) To provide colour (other colours are permitted) 3) To improve organoleptic properties of food
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	100	mg/kg		6	
07.0	bakery wares	100	mg/kg		6	
08.1	fresh meat, poultry, and game	100	mg/kg	Notes 3 <sup>96</sup> 4 <sup>97</sup> , & 16 <sup>98</sup>		
08.2	processed meat, poultry, and game products in whole pieces or cuts	100	mg/kg	Notes 3 & 4		
08.4	edible casings (e.g., sausage casings)	100	mg/kg	Notes 3 & 4		
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	<b>Note 95<sup>99</sup></b>	6	
10.4	egg-based desserts (e.g., custard)	100	mg/kg		6	
12.2.2	seasonings and condiments	100	mg/kg		6	
12.6.1	emulsified sauces (e.g., mayonnaise, salad dressing)	100	mg/kg		6	
13.6	food supplements	<b>600</b>	<b>mg/kg</b>		6	Fast Green FCF (INS 143) is used in food supplements (category 13.6) to colour the

<sup>96</sup> **Note 3:** Surface treatment.

<sup>97</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>98</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>99</sup> **Note 95** For use in surimi and fish roe products only.

<b>Recommendation 3 - Fast Green FCF, INS 143</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for fast green FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control. Usage levels vary depending on the thickness of the coating or capsule shell in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 600mg / kg based on the weight of the colour component. At this level the average intake from supplements would be less than 5mg per day.

**GRAPE SKIN EXTRACT (INS 163II)**

22. The 26<sup>th</sup> JECFA (1982) assigned an ADI of 2.5 mg/kg bw/d for grape skin extract.

<b>Recommendation 1 – Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for grape skin extracts in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.3.2	beverage whiteners	1500	mg/kg		3	No Technological Justification
01.4	cream (plain) and the like	1500	mg/kg		3	No technological need in plain product. Reassigned to subcategory. See recommendation 2
01.6.1	unripened cheese	1000	mg/kg		3	No Technological Justification
01.6.2.1	ripened cheese, includes rind	125	mg/kg		6	No Technological Justification
03.0	edible ices, including sherbet and sorbet	1000	mg/kg		3	See recommendation 2
12.2	herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	1500	mg/kg		3	Reassigned to subcategory. See Recommendation 2
13.1.3	formulae for special medical purposes for infants	20	mg/kg	Note 84 <sup>100</sup>	3	There are no non-standardized foods in this category. For consistency with the draft Codex Standard for Infant Formula

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for grape skin extracts in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg	Note 52 <sup>101</sup> , & DD <sup>102</sup>	3	ML of 150 mg/kg anthocyanin is needed to support the various flavour and types of products. A wide range of colours is equally justified and should

<sup>100</sup> **Note 84:** For infants over 1 year of age only.

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for grape skin extracts in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						be equally permitted
01.6.2.2	rind of ripened cheese	1000	mg/kg		3	
01.6.4.2	flavoured processed cheese, including containing fruit, vegetables, meat, etc.	1000	mg/kg		3	
01.6.5	cheese analogues	1000	mg/kg		3	
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>	6	200 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>	3	200 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
03.0	edible ices, including sherbet and sorbet	<b>100</b>	<b>mg/kg</b>	<b>Note DD</b>	6	1) To provide colour (other colours are permitted) 2) Used for sherbets 3) 200 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.1.2	surface-treated fresh fruit		GMP	Notes 4 <sup>103</sup> & 16 <sup>104</sup>	6	
04.1.2.3	fruit in vinegar, oil, or brine	1500	mg/kg		3	
04.1.2.5	jams, jellies and marmelades	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg	<b>Note DD</b>	6	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.2.7	candied fruit	1500	mg/kg		3	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.2.10	fermented fruit products	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	500 mg/kg pigment is

<sup>101</sup> **Note 52:** Excluding chocolate milk

<sup>102</sup> **Note DD:** Expressed as anthocyanin.

<sup>103</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>104</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for grape skin extracts in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.1.2.11	fruit fillings for pastries	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	<b>100</b>	<b>mg/kg</b>	<b>Note DD</b>	6	To provide colour (other colours are permitted)
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	<b>100</b>	<b>mg/kg</b>	<b>Note DD</b>	3	1) Used for vegetable purees. 2) To provide colour (other colours are permitted) 3) To improve organoleptic properties of food
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	<b>100</b>	<b>mg/kg</b>	<b>Note DD</b>	3	1) Used in vegetable origin desserts and sweet pickled vegetables. 2) To provide colour (other colours are permitted) 3) To improve organoleptic properties of food
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	<b>100</b>	<b>mg/kg</b>	<b>Note DD</b>	3	1) Used in fermented vegetables. 2) To provide colour (other colours are permitted) 3) To improve organoleptic properties of food
05.1.5	imitation chocolate, chocolate substitute products	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>	3	Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
05.3	chewing gum	500	mg/kg	<b>Note DD</b>	6	1) <b>Technological need/level justification</b> Anthocyanins are water soluble, difficult to disperse in chewing gum and are amphoteric in nature, having four principle pH dependent forms. Up to pH 3.8 commercial extracts are ruby red in shade but as pH is increased, the colour



<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for grape skin extracts in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>shade becomes bluer, less intense and less stable. Considerable quantities have to be used to reach an acceptably coloured chewing gum that meets consumer expectations, when 'natural' colours are used. Because of the pH constraints to stabilize colour, the anthocyanins are not used usually in products with a pH above 4.2. The colour effect is very low and high levels of colour are needed to achieve a good tinctorial effect and to achieve stability in the gum and mask the sweetener and base colours. The products are reasonably heat stable but extra colour is normally required to ensure a reasonable appearance when elevated processing temperatures are required since colour loss and browning may occur.</p> <p>Being water soluble this colour can be combined with non-water soluble colours (Ponceau 4R) to achieve unique colour changes that take place during chewing and that can be associated with flavour changes. It is a key water soluble colour that is stable in acidic flavoured chewing gum.</p> <p>A minimum of 10000 mg/kg is needed to achieve a consumer acceptable colour.</p> <p><b>Safety</b>            JECFA assigned an ADI of 2.5 mg/kg body weight for grape skin extract. Consumption of a 3g of chewing gum<sup>105</sup> containing 10 000Mg/kg of grape skin extract by a 60kg adult would result in the ingestion of 30 mg /day, or 5% of the ADI. This assumes 100% extraction of the colour during chewing and assumes that all chewing gum products are coloured using Grape Skin Extract.            2) Colour supports the various flavour and types of products. A wide range of</p>

<sup>105</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: " Guidelines for simple evaluation of food additive intake" and confirmed by an EEC survey conducted in some EEC countries.

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for grape skin extracts in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						colours is equally justified and should be equally permitted.
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	500	mg/kg	Note DD	3	Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	200	mg/kg	Note DD	3	
08.2	processed meat, poultry, and game products in whole pieces or cuts	5000	mg/kg		3	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	5000	mg/kg		3	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
08.4	edible casings (e.g., sausage casings)	5000	mg/kg		3	
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16	3	Potentially used for fish products
09.2.3	frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 16 & 95 <sup>106</sup>	6	
09.2.4.1	cooked fish and fish products	500	mg/kg	Note 95	3	Processed foods flavored with the use of e.g. colored grape sauce.
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	1000	mg/kg		3	
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	1000	mg/kg	Note 16 & 95	3	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	1000	mg/kg	Note 22 <sup>107</sup>	3	
09.3.1	fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	500	mg/kg	Note 16	3	
09.3.2	fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	1500	mg/kg	Note 16	3	
09.3.3	salmon substitutes, caviar, and other fish roe products	1500	mg/kg		3	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste),	1500	mg/kg	Note 16	3	

<sup>106</sup> **Note 95** For use in surimi and fish roe products only.

<sup>107</sup> **Note 22:** For use in smoked fish products only.

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for grape skin extracts in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	excluding products of food categories 09.3.1 - 09.3.3					
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	1500	mg/kg	<b>Note 16</b>	3	
10.4	egg-based desserts (e.g., custard)	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>	3	Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted
<b>12.2.2</b>	<b>Seasonings and condiments</b>	<b>1500</b>	<b>mg/kg</b>		<b>3</b>	<b>Reassigned from broader food category</b>
12.4	mustards	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
12.5	soups and broths	<b>500</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
12.6.1	emulsified sauces (e.g., mayonnaise, salad dressing)	<b>300</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
12.6.2	non-emulsified sauces (e.g., ketchup, cheese sauce, cream sauce, brown gravy)	<b>300</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
12.6.3	mixes for sauces and gravies	<b>300</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3	1500	mg/kg		3	
12.9.5	other protein products	500	mg/kg		3	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	<b>250</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
13.4	dietetic formulae for slimming purposes and weight reduction	<b>250</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	<b>250</b>	<b>mg/kg</b>	<b>Note DD</b>	3	
13.6	food supplements	<b>250</b>	<b>mg/kg</b>	<b>Note DD</b>	3	Grape skin extract (INS: 163ii) is used in food supplements (category 13.6) to colour the coatings in the case of capsules. When manufactured, most food supplements are white or beige in colour even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post-production handling and for the consumer's own control and recognition.  Usage level varies depending on the thickness of the coating or shell and the intensity of the colour required. However, all applications should be accommodated in a maximum level of

<b>Recommendation 2 - Grape Skin Extracts, INS 163ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for grape skin extracts in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						1500mg/kg based on the content of the colour component. Grape skin extract is a preferred alternative to the artificial colours.
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	300	mg/kg	Note DD	6	
14.2.1	beer and malt beverages	300	mg/kg	Note DD	3	
14.2.2	cider and perry	300	mg/kg	Note DD	3	
14.2.4	wines (other than grape)	300	mg/kg	Note DD	3	
14.2.6	distilled spirituous beverages containing more than 15% alcohol	300	mg/kg	Note DD	3	
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	300	mg/kg	Note DD	3	
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	500	mg/kg	Note DD	3	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	300	mg/kg	Note DD	3	

<b>Recommendation 3 - Grape Skin Extracts, INS 163ii</b>						
<b>Comments are requested</b> on the following food additive provisions for grape skin extract in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.4.4	Cream analogues	150	mg/kg	Note DD		Reassigned from broader food category. Colours are used to standardize the colour
01.5.2	milk and cream powder analogues	150	mg/kg	Note DD	3	1) Potentially used as a color for similar products of e.g. strawberry milk. 2) No Technological Justification 3) Colours are used to standardize the colour
04.1.2.4	canned or bottled (pasteurized) fruit	1500	mg/kg		3	This use will increase the intake of this colour and could mislead the consumer.
04.2.1.2	surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds		GMP	Note 16 & 4	6	Justification of need
05.1.2	Cocoa mixes (syrops)	200	mg/kg	Note DD		Proposed new use. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.
05.1.3	Cocoa-based spreads, incl. fillings	200	mg/kg	Note DD		Proposed new use. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should

<b>Recommendation 3 - Grape Skin Extracts, INS 163ii</b>						
<b>Comments are requested</b> on the following food additive provisions for grape skin extract in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<b>be equally permitted.</b>
05.1.4	<b>Cocoa and chocolate products</b>	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>		<b>Proposed new use. Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.</b>
06.3	breakfast cereals, including rolled oats	200	mg/kg		6	Safety concern because foods covered by this category are consumed mainly by children
07.0	bakery wares	1500	mg/kg		3	1) Bakery products using colored grapes are sold. 2) Justification of need
07.1.2	<b>Crackers, excluding sweet crackers</b>	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>		<b>Proposed new use</b>
07.1.4	<b>Bread-type products, including bread stuffing and bread crumbs</b>	<b>200</b>	<b>mg/kg</b>	<b>Note DD</b>		<b>Proposed new use</b>
08.1.2	fresh meat, poultry, and game, comminuted	1000	mg/kg	Notes 4, 16 94 <sup>108</sup>	6	Justification of need
08.3.1.2	cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	1) Justification for high ML if the use is made according to note 16. 2) To provide colour (other colours are permitted)
08.3.1.3	fermented non-heat treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	1) Justification for high ML if the use is made according to note 16. 2) To provide colour (other colours are permitted)
08.3.2	heat-treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	1) Justification for high ML if the use is made according to note 16. 2) To provide colour (other colours are permitted)
08.3.3	frozen processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	1) Justification for high ML if the use is made according to note 16. 2) To provide colour (other colours are permitted)
10.1	fresh eggs	1500	mg/kg	Note 4 <sup>109</sup>	3	Justification of need
14.1.3.2	vegetable nectar	1500	mg/kg		3	Justification of need
14.1.3.4	concentrates for vegetable nectar	1500	mg/kg		3	Justification of need
14.2.3.2	sparkling and semi-sparkling grape wines	1500	mg/kg		3	Justification of need
14.2.3.3	fortified grape wine, grape liquor wine, and sweet grape wine	1500	mg/kg		3	Justification of need
15.3	<b>Snacks - fish based</b>	<b>500</b>	<b>mg/kg</b>			<b>New proposed use</b>
16.0	composite foods - foods that could not be placed in categories 01 - 15	1500	mg/kg		3	1) Justification for why the carry over wouldn't be sufficient.
16.0	composite foods - foods that could not be placed in categories 01 - 15	10	mg/kg		6	2) Used for complex foods 3) To provide colour (other colours are permitted)

**INDIGOTINE (INS 132)**

23. The 18<sup>th</sup> JECFA (1974) assigned an ADI of 5 mg/kg bw/d for indigotine.

<sup>108</sup> **Note 94:** For use in loganiza (fresh, uncured sausage) only.

<sup>109</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 1 – Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.1	unripened cheese	200	mg/kg	Note 3 <sup>110</sup>	3	A rind is not expected to be formed in unripened cheese.
02.2.1.2	margarine and similar products	200	mg/kg		3	
04.1.2.4	canned or bottled (pasteurized) fruit	200	mg/kg		6	Use could mislead the consumer
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200	mg/kg		6	Use could mislead the consumer
05.1.3	cocoa-based spreads, including fillings	100	mg/kg		6	Potentially used as color preparations for spreads.
05.1.4	cocoa and chocolate products	450	mg/kg		6	1) Potentially used for chocolate products 2) Indigotine is used as a color additive in confectionery when a dark bluish-red hue is desired. Indigotine has wide acceptability and therefore is a commonly used color
06.3	breakfast cereals, including rolled oats	300	mg/kg		6	Because these foods are consumed by children and the ADI is low.
07.0	bakery wares	300	mg/kg		6	The technological need is questioned and these basic foods with wide consumption would increase intake of this colour. Reassigned to subcategory. See recommendation 2.
12.2.1	herbs and spices	300	mg/kg		6	

<b>Recommendation 2 - Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	300	mg/kg	Note 52 <sup>111</sup>	6	
01.6.2.2	rind of ripened cheese	100	mg/kg		6	
01.6.5	cheese analogues	200	mg/kg	Note 3	3	
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	150	mg/kg		6	
02.1.3	lard, tallow, fish oil, and other animal fats	300	mg/kg		3	1) Potentially colored by using the emulsified color preparation 2) Use could mislead the consumer
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	300	mg/kg		6	1) Potentially used as fat emulsion color preparations. 2) To provide colour (other colours are permitted)
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	150	mg/kg		6	

<sup>110</sup> **Note 3:** Surface treatment.

<sup>111</sup> **Note 52:** Excluding chocolate milk

<b>Recommendation 2 - Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for indigotine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
03.0	edible ices, including sherbet and sorbet	<b>150</b>	<b>mg/kg</b>		6	
04.1.2.5	jams, jellies and marmelades	<b>300</b>	<b>mg/kg</b>		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	<b>300</b>	<b>mg/kg</b>		6	
04.1.2.7	candied fruit	200	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	<b>150</b>	<b>mg/kg</b>		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	<b>150</b>	<b>mg/kg</b>		6	
04.1.2.11	fruit fillings for pastries	<b>150</b>	<b>mg/kg</b>		6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	<b>150</b>	<b>mg/kg</b>		6	
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	200	mg/kg	<b>Note 92<sup>112</sup></b>	6	
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	<b>300</b>	<b>mg/kg</b>		3	
05.1.5	imitation chocolate, chocolate substitute products	<b>300</b>	<b>mg/kg</b>		6	
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	<b>300</b>	<b>mg/kg</b>		6	
05.3	chewing gum	300	mg/kg		6	<p><b>Technical need/level justification</b></p> <p>This additive is needed to obtain desired blue and/or purple colours of chewing gum. Since the colour addition does not have a strong tinctorial effect, higher quantities are required to obtain a suitable colour effect when dispersed in chewing gum.</p> <p>Used in sufficient amounts, Indigotine gives chewing gum a typical bright dark blue shade which is appropriate for dark berry flavoured products (e.g. blueberry, black currant). Indigotine has got a brighter reddish blue shade than other</p>

<sup>112</sup> **Note 92:** Excluding tomato-based products

<b>Recommendation 2 - Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for indigotine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>blue colours which, upon blending with a red colour, makes it suitable for obtaining chewing gum with purple colours. The purple shade may be varied by changing the ratio of indigotine and the red colour component.</p> <p>Furthermore, certain dark brown colour shades used in chewing gum may be obtained only by proper blending of indigotine with red and yellow colour components. Here, alternative existing brown colours such as caramel (E150) produce a colour of the chewing gum which is lighter brown than desired.</p> <p>Depending on the normal shade of other chewing gum ingredients (for example sugar, sorbitol, glucose syrup, gum bas etc) the amount of indigotine required to produce the desired colour may vary. Based on previous and existing formulas 300 mg of indigotine/kg of finished chewing gum is needed to produce the colour acceptable to the consumer.</p> <p>Additions of this colour at less than 300 mg/ kg may result in rather unattractive shades being produced, the colour being blended with the creamy white or grey colour of the gum base and /or with the bright white colour of the main sweetening components. Hence, higher levels are required to overcome and mask the colours of the base and sweeteners to provide some degree of brightness and an appealing appearance to the product.</p> <p><b>Safety</b></p> <p>The JECFA ADI value for indigotine is 0-5 mg/kg body weight. Consumption of a 3g chewing gum<sup>1</sup> containing 300 mg/kg indigotine by a 60 kg adult would result in the ingestion of 0.9 mg colour or about 0.3% of the ADI. This ingestion is based on an assumption of 100% extraction of the colour during chewing, and assumes that all chewing gum products consumed would be coloured using indigotine.</p>
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	<b>300</b>	<b>mg/kg</b>		6	
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	<b>150</b>	<b>mg/kg</b>		6	
<b>07.2</b>	<b>Fine bakery wares (sweet,</b>	<b>200</b>	<b>mg/kg</b>		<b>6</b>	<b>Reassigned from broader</b>



<b>Recommendation 2 - Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for indigotine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	<b>salty, savoury) and mixes</b>					<b>food category</b>
09.1.1	fresh fish	300	mg/kg	Note 50 <sup>113</sup> & 16 <sup>114</sup>	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>	Note 95 <sup>115</sup>	6	
09.2.4.1	cooked fish and fish products	<b>300</b>	<b>mg/kg</b>	<b>Note 95</b>	6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	250	mg/kg	<b>Note 16</b>	6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>	Note 22 <sup>116</sup>	6	
09.3.3	salmon substitutes, caviar, and other fish roe products	<b>300</b>	<b>mg/kg</b>		6	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	<b>300</b>	<b>mg/kg</b>		6	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>		6	
10.1	fresh eggs	300	mg/kg	Note 4 <sup>117</sup>	3	
10.4	egg-based desserts (e.g., custard)	300	mg/kg		6	
12.2.2	seasonings and condiments	<b>300</b>	<b>mg/kg</b>		6	
12.4	mustards	300	mg/kg		6	
12.5	soups and broths	<b>50</b>	<b>mg/kg</b>		6	
12.6	sauces and like products	<b>300</b>	<b>mg/kg</b>		6	
12.9.5	other protein products	100	mg/kg		6	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	50	mg/kg		6	
13.4	dietetic formulae for slimming purposes and weight reduction	50	mg/kg		6	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1-13.4 and 13.6	300	mg/kg		6	
13.6	food supplements	300	mg/kg		6	Indigotine (INS 132) is used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production

<sup>113</sup> **Note 50:** For use in fish roe only.

<sup>114</sup> **Note 16** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>115</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>116</sup> **Note 22:** For use in smoked fish products only.

<sup>117</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 2 - Indigotine, INS 132</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for indigotine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						handling and for the consumer's own recognition and control. Usage levels vary depending on the thickness of the coating or capsule shell in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 600mg / kg based on the weight of the colour component. At this level the average intake from supplements would be less than 5mg per day.
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	100	mg/kg		6	
14.2.2	cider and perry	200	mg/kg		6	
14.2.4	wines (other than grape)	200	mg/kg		6	
14.2.6	distilled spirituous beverages containing more than 15% alcohol	300	mg/kg		6	
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg		6	
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	200	mg/kg		6	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		6	

<b>Recommendation 3 - Indigotine, INS 132</b>						
<b>Comments are requested</b> on the following food additive provisions for indigotine in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	100	mg/kg			Proposed new use
11.3	sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	300	mg/kg		6	Potentially used for liquid sugar syrups
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	300	mg/kg		6	Potentially used for topping syrups
11.6	table-top sweeteners, including those containing high-intensity sweeteners	300	mg/kg		6	1) Potentially used for table top sweeteners 2) Producers of tabletop sweeteners see no need or justification for the use of Indigotine (INS 132) in tabletop sweetener preparations. It is proposed to delete this entry for cat. 11.6.
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain					<b>Proposal to request information on use levels and technological need in this food category</b>

<b>Recommendation 3 - Indigotine, INS 132</b>						
<b>Comments are requested</b> on the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
	beverages, excluding cocoa					

**IRON OXIDES (INS 172I, 172II, 172III)**

24. The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of iron oxides.

25. The 23<sup>rd</sup> JECFA (1979) assigned an ADI of 0.5 mg/kg bw/d for iron oxides (172i, 172ii, 172iii).

26. The 30<sup>th</sup> CCFAC requested that JECFA perform intake assessments for iron oxides based on the pending levels of use in the GSFA and national food consumption data. The 53<sup>rd</sup> JECFA (1999) concluded that it is unlikely that intake of iron oxides would exceed the ADI of 0-0.5 mg/kg bw.

<b>Recommendation 1 – Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.4	cream (plain) and the like		GMP		6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		6	
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	75	mg/kg		3	
05.1.3	cocoa-based spreads, including fillings		GMP		6	
08.1.2	fresh meat, poultry, and game, comminuted	1000	mg/kg	Note 94 <sup>118</sup>	6	
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	1000	mg/kg	Note 78 <sup>119</sup>	6	
08.3.1.3	fermented non-heat treated processed comminuted meat, poultry, and game products		GMP	Note 16 <sup>120</sup>	6	
08.3.2	heat-treated processed comminuted meat, poultry, and game products		GMP	Note 16	6	
08.3.3	frozen processed comminuted meat, poultry, and game products		GMP	Note 16	6	
09.1.1	fresh fish		GMP	Note 50 <sup>121</sup>	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95 <sup>122</sup>	6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms		GMP		6	
14.2.2	cider and perry		GMP		6	
14.2.3.2	sparkling and semi-sparkling grape wines		GMP		6	
14.2.4	wines (other than grape)		GMP		6	

<sup>118</sup> **Note 94:** For use in loganiza (fresh, uncured sausage) only.

<sup>119</sup> **Note 78:** For use in tocino (fresh, cured sausage) only.

<sup>120</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>121</sup> **Note 50:** For use in fish roe only.

<sup>122</sup> **Note 95:** For use in surimi and fish roe products only.

<b>Recommendation 1 – Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
14.2.6	distilled spirituous beverages containing more than 15% alcohol		GMP		6	
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)		GMP		6	

<b>Recommendation 2 - Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.1	unripened cheese		GMP		6	Codex Stan 221 contains provisions for other colors
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	300	mg/kg	Note 92 <sup>123</sup>	6	To improve organoleptic properties of food
05.3	chewing gum	10.000	mg/kg		6	1) This additive is needed to obtain desired black colours of chewing gum. Since the colour addition does not have a strong tinctorial effect, higher quantities are required to obtain a suitable colour effect when dispersed in chewing gum. Used in sufficient amounts, Iron Oxides give chewing gum a typical bright black shade which is appropriate for products with certain flavours (eg. liquorice). Iron Oxides provide a brighter black shade than other black colours such as carbon black (E153) which produces a more greyish black shade than desired in certain products. Furthermore, Iron Oxides may be used in combination with other red, blue and brown colours in chewing gum to make these colours appear darker than if applied in their pure state. Depending on the normal shade of other chewing gum ingredients (for example sugar, sorbitol, glucose syrup, gum base etc) the amount of Iron Oxides required to produce the desired colour may vary. Based on previous and existing formulas 10000 mg of Iron Oxides per kg of finished chewing gum is needed to produce the colour acceptable to the consumer.

<sup>123</sup> **Note 92:** Excluding tomato-based sauces

<b>Recommendation 2 - Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for iron oxides in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						<p>Studies have shown that significant levels of colour are trapped in the chewing gum base during initial manufacturing and during chewing, and variable quantities are released relative to the colour used with significant quantities retained. Additions of this colour at less than 10000 mg/kg may result in rather unattractive shades being produced, the colour being blended with the creamy white or grey colour of the gum base and/or with the bright white colour of the main sweetening components. Hence, higher levels are required to overcome and mask the colours of the base and sweeteners to provide some degree of brightness and an appealing appearance to the product. Generally, the heat stability of Iron Oxides is good, hence their use, but they must be used in low moisture content products like chewing gum to retain their light stability.</p> <p>2) The proposed maximum level of use for Food Category 05.3 (Chewing Gum) is justified to achieve the intended effect.</p>
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	50	mg/kg		3	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	<b>50</b>	<b>mg/kg</b>		6	
10.4	egg-based desserts (e.g., custard)		GMP		6	To provide colour (other colours are permitted)
12.4	mustards		GMP		6	1) To provide colour (other colours are permitted). 2) To improve organoleptic properties of food
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3		GMP		6	1) To provide colour (other colours are permitted). 2) To improve organoleptic properties of food
12.9.5	other protein products		GMP		6	To provide colour (other colours are permitted).
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)		GMP		6	To provide colour (other colours are permitted)
13.4	dietetic formulae for slimming purposes and weight reduction		GMP		6	To provide colour (other colours are permitted).
13.5	dietetic foods (e.g., supplementary foods for		GMP		6	To provide colour (other colours are permitted)

<b>Recommendation 2 - Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for iron oxides in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	dietary use) excluding products of food categories 13.1 - 13.4 and 13.6					
13.6	food supplements	<b>7500</b>	<b>mg/kg</b>	<b>Note 3<sup>124</sup></b>	6	<p>1) To provide colour (other colours are permitted ), IFAC: Need a higher level than 7500 mg/kg.</p> <p>2) Iron oxides (INS: 172i, 172ii and 172iii) are used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post-production handling and for the consumer's own control and recognition. Usage level varies depending on the thickness of the coating or shell and the intensity of the colour required. However, all applications should be accommodated in a maximum level of 7500mg/kg singly or in combination. Iron oxides are the preferred alternatives to artificial colours in many countries, including those in the European Union.</p> <p>3) Iron oxides are typically used in this range in many European countries in numerous commercial products and also in other regions of the world such as Australia and South Africa. The maximum level of 7500 mg/kg for iron oxides being proposed for food supplements is below levels that are already commercially used in nutritional supplements. The following example shows daily intake using a typical coating system containing 18.7% iron oxide, applied to a food supplement with a 4% weight gain assuming a daily food supplement consumption of 3 g.</p> <p>3g (food supplement) x 4.0% (coating) = 0.12 g coating  0.12 g coating x 1000 mg=120 mg coating  120 mg coating x 0.1817 (Iron Oxide) = 21.80 mg Iron Oxide/Day  JECFA ADI multiplied by a 60 kg body weight would result in a daily amount of 30 mg/day.</p>

<sup>124</sup> **Note 3:** Surface treatment

<b>Recommendation 2 - Iron Oxides, INS 172i, 172ii, 172iii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						The proposed use of 21.80 mg per day is below the 30 mg/day. In comparison to other food products, consumers self regulate daily intake levels of food supplements in their diet. Manufacturers of food supplements reinforce this by providing specific dosage recommendations on the product label. Therefore, the ultimate intake from dietary supplements is significantly less than the intake from traditional food use.
14.1.3.2	vegetable nectar	100	mg/kg		6	To improve organoleptic properties of food
14.1.3.4	concentrates for vegetable nectar	100	mg/kg	Note 127 <sup>125</sup>	6	To improve organoleptic properties of food

**PONCEAU 4R (INS 124)**

27. The 26<sup>th</sup> JECFA (1982) assigned an ADI of 4 mg/kg bw/d for ponceau 4R.

<b>Recommendation 1 – Ponceau 4R, INS 124</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.4	processed cheese	200	mg/kg		6	Reassigned to subcategory 01.6.4.2. See recommendation 2
04.1.1.2	surface-treated fresh fruit	500	mg/kg	Note 16 <sup>126</sup>	6	
04.2.1.2	surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	500	mg/kg	Note 16	6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		6	
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200	mg/kg		6	
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	100	mg/kg		6	
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and	200	mg/kg		6	

<sup>125</sup> **Note 127:** As served to the consumer.

<sup>126</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Recommendation 1 – Ponceau 4R, INS 124</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for ponceau 4R in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5					
05.1.1	cocoa mixes (powders) and cocoa mass/cake	50	mg/kg		6	There are no non-standardized foods in this category. The relevant Codex standards (105 & 141) do not contain any provisions for colors.
05.1.2	cocoa mixes (syrops)	50	mg/kg		6	
05.1.3	cocoa-based spreads, including fillings	100	mg/kg		6	
05.1.4	cocoa and chocolate products	150	mg/kg		6	
06.3	breakfast cereals, including rolled oats	200	mg/kg		6	
08.1	fresh meat, poultry, and game	500	mg/kg	Note 16	6	
08.2	processed meat, poultry, and game products in whole pieces or cuts	30	mg/kg		6	
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	250	mg/kg		6	
08.3.1.2	cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	200	mg/kg		6	
08.3.1.3	fermented non-heat treated processed comminuted meat, poultry, and game products	30	mg/kg		6	
08.3.2	heat-treated processed comminuted meat, poultry, and game products	200	mg/kg		6	
08.3.3	frozen processed comminuted meat, poultry, and game products	200	mg/kg		6	
09.1.1	fresh fish	300	mg/kg	Note 50 <sup>127</sup>	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg		6	
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16	6	
09.3.1	fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	500	mg/kg	Note 16	6	
09.3.2	fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	500	mg/kg	Note 16	6	

<sup>127</sup> **Note 50:** For use in fish roe only.



<b>Recommendation 2 - Ponceau 4R, INS 124</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for ponceau 4R in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg		6	
01.6.2.2	rind of ripened cheese	100	mg/kg		6	
<b>01.6.4.2</b>	<b>Flavoured processed cheese, including containing fruit, vegetables, meat, etc.</b>	<b>100</b>	<b>mg/kg</b>		<b>6</b>	Reassigned from broader food category.
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	50	mg/kg		6	
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	50	mg/kg		6	
03.0	edible ices, including sherbet and sorbet	50	mg/kg		6	
04.1.2.5	jams, jellies and marmelades	100	mg/kg		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg		6	
04.1.2.7	candied fruit	200	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	50	mg/kg		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	50	mg/kg		6	
04.1.2.11	fruit fillings for pastries	50	mg/kg		6	
05.1.5	imitation chocolate, chocolate substitute products	50	mg/kg		6	
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	50	mg/kg		6	
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	50	mg/kg		6	
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	50	mg/kg		6	
08.4	edible casings (e.g., sausage casings)	500	mg/kg	Note 16 <sup>128</sup>	6	
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16	6	
09.2.3	frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 16 & 95 <sup>129</sup>	6	
09.2.4.1	cooked fish and fish products	500	mg/kg	<b>Note 95</b>	6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	250	mg/kg		6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and	100	mg/kg	Note 22 <sup>130</sup>	6	

<sup>128</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>129</sup> **Note 95:** For use in surimi and fish roe products only

<b>Recommendation 2 - Ponceau 4R, INS 124</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for ponceau 4R in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	echinoderms					
09.3.3	salmon substitutes, caviar, and other fish roe products	500	mg/kg		6	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	<b>100</b>	<b>mg/kg</b>		6	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg		6	
10.4	egg-based desserts (e.g., custard)	<b>50</b>	<b>mg/kg</b>		6	
12.2.2	seasonings and condiments	500	mg/kg		6	
12.4	mustards	300	mg/kg		6	
12.5	soups and broths	<b>50</b>	<b>mg/kg</b>		6	
12.6	sauces and like products	<b>50</b>	<b>mg/kg</b>		6	
12.7	salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories 04.2.2.5 and 05.1.3	200	mg/kg		6	
12.9.5	other protein products	100	mg/kg		6	
13.4	dietetic formulae for slimming purposes and weight reduction	50	mg/kg		6	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	300	mg/kg		6	
13.6	food supplements	300	mg/kg		6	<p>Ponceau 4R (INS 124) is used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules.</p> <p>When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control.</p> <p>Usage levels vary depending on the thickness of the coating or capsule shell in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 600mg / kg based on the weight of the colour component. At this level the average intake from supplements would be less</p>

<sup>130</sup> **Note 22:** For use in smoked fish products only.

<b>Recommendation 2 - Ponceau 4R, INS 124</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						than 5mg per day.
14.1.4	water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	50	mg/kg		6	
14.2.2	cider and perry	200	mg/kg		6	
14.2.6	distilled spirituous beverages containing more than 15% alcohol	200	mg/kg		6	1) Potentially used for alcoholic drinks. 2) To provide colour (other colours are permitted)
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg		6	
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	200	mg/kg		6	
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		6	

<b>Recommendation 3 - Ponceau 4R, INS 124</b>						
<b>Comments are requested</b> on the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.1	unripened cheese	100	mg/kg	Note 3 <sup>131</sup>		Request justification of technological need
01.6.5	cheese analogues	100	mg/kg	Note 3	3	Request justification of technological need
04.1.2.4	canned or bottled (pasteurized) fruit	300	mg/kg		6	Request justification of technological need
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	500	mg/kg		3	Request justification of technological need
05.3	chewing gum	300	mg/kg		6	<b>Technological need/level justification</b> This additive is needed to obtain desired red, pink, and purple shades in certain chewing gum products. Ponceau 4R is one of only a few synthetic red colors that are available for coloring chewing gum. Ponceau 4R is associated with a unique shade of red and is desirable in bubble gums, fruit flavored gums, and cinnamon flavored gums. Particularly in the absence of any safety concerns, the General Standard on Food Additives should allow for its continued use in chewing gum, so as to give manufacturers needed flexibility as they design products for various markets. A minimum of 300 mg/kg is needed to get a consumer

<sup>131</sup> **Note 3:** Surface treatment.

<b>Recommendation 3 - Ponceau 4R, INS 124</b>						
<b>Comments are requested</b> on the following food additive provisions for ponceau 4R in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						acceptable color. <b>Safety</b> There is no question about the safety of Ponceau 4R when used in chewing gum at the level of use under consideration, up to 300 mg/kg. The JECFA ADI for Ponceau 4R is currently 0-4 mg/kg b.w. A three-gram piece of chewing gum <sup>132</sup> containing Ponceau 4R at 300 mg/kg contains only 0.9 mg of the color additive. This corresponds to a very small fraction of the JECFA ADI, which allows for up to 240 mg of Ponceau 4R daily in the diet of a 60kg adult.
07.0	bakery wares	200	mg/kg		6	Request justification of technological need
09.1.2	fresh mollusks, crustaceans, and echinoderms	500	mg/kg	Notes 4 <sup>133</sup> & 16	6	Request justification of technological need
10.1	fresh eggs	500	mg/kg	Note 4	3	Request justification of technological need
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	200	mg/kg		6	Request justification of technological need
11.6	table-top sweeteners, including those containing high-intensity sweeteners	200	mg/kg		6	1) Potentially for table sweeteners 2) Producers of tabletop sweeteners, see no need or justification for the use of Ponceau 4R (INS 124) in tabletop sweetener preparations.
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	50	mg/kg		6	Request justification of technological need
14.2.4	wines (other than grape)	200	mg/kg		6	Used for fruit wines Request justification of technological need
16.0	composite foods - foods that could not be placed in categories 01 - 15	500	mg/kg		6	Question the technological need in a food which can not be described

### **RIBOFLAVINS (INS 101I, 101II)**

28. The 28<sup>th</sup> CAC has adopted several provisions in the GSFA for the use of riboflavins.

29. The 51<sup>st</sup> JECFA assigned a group ADI for synthetic riboflavin (101i) and riboflavin-5'-phosphate (101ii) of 0.5 mg/kg bw/d.

<b>Recommendation 1 – Riboflavins, INS 101i, 101ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for riboflavins in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
04.1.2.3	fruit in vinegar, oil, or brine	300	mg/kg		3	
04.2.2.2	dried vegetables (including	10	mg/kg		6	Use could mislead

<sup>132</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: “Guidelines for simple evaluation of food additive intake” and confirmed by an EEC survey conducted in some EEC countries.

<sup>133</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 1 – Riboflavins, INS 101i, 101ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for riboflavins in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
	mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds					consumer
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	300	mg/kg		3	Use could mislead consumer
06.4.2	dried pastas and noodles and like products	300	mg/kg		3	Use could mislead consumer and ADI exceeded
07.1	bread and ordinary bakery wares	300	mg/kg		3	Use could mislead consumer and ADI exceeded
08.0	meat and meat products, including poultry and game	1000	mg/kg		6	Reassigned to certain subcategories
16.0	composite foods - foods that could not be placed in categories 01 - 15	300	mg/kg		3	

<b>Recommendation 2 - Riboflavins, INS 101i, 101ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>revoke</b> the following food additive provisions for riboflavins in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
12.5.1	ready-to-eat soups and broths, including canned, bottled, and frozen	200	mg/kg			Superseded by 12.5 at 400 mg/kg from commodity standard. See recommendation 3
12.5.2	mixes for soups and broths	150	mg/kg		3	

<b>Recommendation 3 - Riboflavins, INS 101i, 101ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for riboflavins in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
02.3	fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	300	mg/kg		3	1) Used for imitation ice cream; 2) Used as a colorant in some of these products to balance the variations in color provided by the different fat sources. 3) To balance the variations in colour provided by the different sources. A wide range of colours is equally justified and should be equally permitted
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	300	mg/kg	<b>Note 92</b> <sup>134</sup>	3	

<sup>134</sup> **Note 92:** Excluding tomato-based sauces

<b>Recommendation 3 - Riboflavins, INS 101i, 101ii</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for riboflavins in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
08.2	Processed meat, poultry, and game products in whole pieces or cuts	1000	mg/kg		6	To improve organoleptic properties of food
08.3	Processed comminuted meat, poultry, and game products	1000	mg/kg		6	To improve organoleptic properties of food
08.4	Edible casings (e.g., sausage casings)	1000	mg/kg		6	To improve organoleptic properties of food
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	1000	mg/kg	Note 95 <sup>135</sup>	6	
09.2.4.1	cooked fish and fish products	300	mg/kg	<b>Note 95</b>	3	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	300	mg/kg		3	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	<b>Note 95</b>	6	
14.1.3.2	vegetable nectar	300	mg/kg		3	
14.1.3.4	concentrates for vegetable nectar	300	mg/kg	<b>Note 127<sup>136</sup></b>	3	

### SUNSET YELLOW FCF, INS 110

30. The 26<sup>th</sup> JECFA (1982) assigned a group ADI of 2.5 mg/kg bw/d for sunset yellow FCF.

<b>Recommendation 1 – Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.6.4	processed cheese	200	mg/kg		6	Reassigned to subcategory. See Recommendations 2 & 3
02.2.1.2	margarine and similar products		GMP		6	
04.1.1.2	surface-treated fresh fruit	500	mg/kg	Note 16 <sup>137</sup>	6	Use would mislead the consumer
04.1.2.2	dried fruit	50	mg/kg		6	Use would mislead the consumer
04.1.2.4	canned or bottled (pasteurized) fruit	200	mg/kg		6	Use would mislead the consumer
04.2.2.2	dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	300	mg/kg	Note 76 <sup>138</sup>	6	
04.2.2.3	vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	500	mg/kg		6	
04.2.2.4	canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and	200	mg/kg		6	

<sup>135</sup> **Note 95:** For use in surimi and fish roe products only.

<sup>136</sup> **Note 127:** As served to the consumer

<sup>137</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>138</sup> **Note 76:** Use in potatoes only.

<b>Recommendation 1 – Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>discontinue</b> further work on the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
	seaweeds					
04.2.2.5	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	100	mg/kg		6	
05.1.1	cocoa mixes (powders) and cocoa mass/cake	50	mg/kg		6	There are no non-standardized foods in this category and the relevant commodity standards (105 & 141) do not contain provisions for colors.
05.1.2	cocoa mixes (syrups)	50	mg/kg		6	Use may lead to misleading the consumer
05.1.3	cocoa-based spreads, including fillings	100	mg/kg		6	
05.1.4	cocoa and chocolate products	400	mg/kg		6	
06.4.2	dried pastas and noodles and like products	300	mg/kg		6	
11.3	sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	300	mg/kg		6	
11.4	other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	300	mg/kg		6	
11.6	table-top sweeteners, including those containing high-intensity sweeteners	300	mg/kg		6	
12.2.1	herbs and spices	300	mg/kg		6	
14.1.2.2	vegetable juice		GMP		6	
14.1.5	coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	70	mg/kg		3	Use could mislead the consumer and there is no technological need
15.2	processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		6	

<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <b>adopt</b> the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.1.2	dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	50	mg/kg	Note 52 <sup>139</sup>	6	
01.6.1	unripened cheese	300	mg/kg	Note 3 <sup>140</sup>	6	To color surfaces and to standardize color between batches of product.
01.6.2.2	rind of ripened cheese	100	mg/kg		6	
<b>01.6.4.2</b>	<b>Flavoured processed cheese, including containing fruit, vegetables, meat etc</b>	<b>100</b>	<b>mg/kg</b>		<b>6</b>	<b>Reassigned from broader food category</b>
01.6.5	cheese analogues	300	mg/kg	Note 3	6	Provide coloring to standardize

<sup>139</sup> Note 52: Excluding chocolate milk

<sup>140</sup> Note 3: Surface treatment.

<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for sunset yellow FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
						the color between batches of product.
01.7	dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	50	mg/kg		6	
02.1.3	lard, tallow, fish oil, and other animal fats	300	mg/kg		6	Used for colored lard, tallow, fish oil, and other animal fats by using the fat emulsion color preparations
02.4	fat-based desserts excluding dairy-based dessert products of food category 01.7	50	mg/kg		6	
03.0	edible ices, including sherbet and sorbet	50	mg/kg		6	
04.1.2.5	jams, jellies and marmelades	300	mg/kg		6	
04.1.2.6	fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	300	mg/kg		6	
04.1.2.7	candied fruit	200	mg/kg		6	
04.1.2.8	fruit preparations, including pulp, purees, fruit toppings and coconut milk	300	mg/kg		6	
04.1.2.9	fruit-based desserts, including fruit-flavoured water-based desserts	50	mg/kg		6	
04.1.2.11	fruit fillings for pastries	300	mg/kg		6	
04.2.1.2	surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	300	mg/kg	Note 4 <sup>141</sup> & 16	6	
04.2.2.6	vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	50	mg/kg		6	
04.2.2.7	fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweed products, excluding fermented soybean products of food category 12.10	200	mg/kg	Note 92 <sup>142</sup>	6	
05.1.5	imitation chocolate, chocolate substitute products	300	mg/kg		6	
05.2	confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	300	mg/kg		6	
05.3	chewing gum	300	mg/kg		6	<b>Technological need/level justification</b> This additive is needed to obtain desired orange yellow colors in

<sup>141</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<sup>142</sup> **Note 92:** Excluding tomato-based products



<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						<p>chewing gum. Since the color addition does not have a strong tinctorial effect, higher quantities are required to obtain a suitable color effect when dispersed in chewing gum.</p> <p>Used in sufficient amounts, Sunset yellow FCF gives chewing gum a typical bright orange yellow shade which is appropriate for orange flavoured products (e.g. oranges, tangerine). Sunset yellow FCF gives a very bright shade which is often brighter than the shades obtainable by employing other single colors or color combinations.</p> <p>Depending on the normal shade of other chewing gum ingredients (for example sugar, sorbitol, glucose syrup, gum base, etc) the amount of Sunset yellow FCF required to produce the desired color may vary. Based on previous and existing formulas 300 mg of Sunset yellow FCF/kg of finished chewing gum, and sometimes more, is needed to produce the color acceptable to the consumer.</p> <p>Additions of this color at less than 300 mg/kg may result in rather unattractive shades being produced, the color being blended with the creamy white or grey color of the gum base and/or with the bright white color of the main sweetening components. Hence higher levels are required to overcome and mask the colors of the base and sweeteners to provide some degree of brightness and an appealing appearance to the product.</p> <p><b>Safety</b></p> <p>The JECFA ADI for Sunset yellow FCF is 2.5 mg/kg body weight. Consumption of 3 g of chewing gum<sup>143</sup> containing Sunset yellow FCF at the level of 300 mg/kg would result in ingestion of only 0.9 mg/kg Sunset yellow FCF, if all of the color present is extracted during chewing. This corresponds to 0.015 mg/kg bw for a 60 kg adult or about 0.6% of the ADI.</p>
05.4	decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	<b>300</b>	<b>mg/kg</b>		6	
06.3	breakfast cereals, including rolled oats	<b>300</b>	<b>mg/kg</b>		6	

<sup>143</sup> Figures collected in all EEC countries show that the daily per capita consumption of chewing gum in the EEC is 1g/day. The heavy users consumption is 3 times the consumption per capita as demonstrated in the FAO/WHO 18<sup>th</sup> session of the Codex Committee on Food Additives: “ Guidelines for simple evaluation of food additive intake” and confirmed by an EEC survey conducted in some EEC countries.

<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for sunset yellow FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
06.4.3	pre-cooked pastas and noodles and like products	300	mg/kg		6	For consistency with the Codex standard for instant noodles
06.5	cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	50	mg/kg		6	
07.0	bakery wares	200	mg/kg		6	
08.1	fresh meat, poultry, and game	300	mg/kg	Notes 4 & 16 <sup>144</sup>	6	
08.2	processed meat, poultry, and game products in whole pieces or cuts	300	mg/kg	Note 16	6	
08.3.1.1	cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	300	mg/kg	Note 16	6	
08.3.1.2	cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	135	mg/kg		6	
08.3.1.3	fermented non-heat treated processed comminuted meat, poultry, and game products	300	mg/kg	Note 16	6	
08.3.2	heat-treated processed comminuted meat, poultry, and game products	300	mg/kg	Note 16	6	
08.3.3	frozen processed comminuted meat, poultry, and game products	300	mg/kg	Note 16	6	
08.4	edible casings (e.g., sausage casings)	300	mg/kg	Note 16	6	
09.1.1	fresh fish	300	mg/kg	Notes 4, 16 & 50 <sup>145</sup>	6	
09.1.2	fresh mollusks, crustaceans, and echinoderms	300	mg/kg	Notes 4 & 16	6	
09.2.1	frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 95 <sup>146</sup>	6	
09.2.2	frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 16	6	
09.2.3	frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 16 & 95	6	
09.2.4.1	cooked fish and fish products	300	mg/kg	Note 95	6	
09.2.4.2	cooked mollusks, crustaceans, and echinoderms	250	mg/kg		6	
09.2.4.3	fried fish and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 16	6	
09.2.5	smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and	100	mg/kg	Note 22 <sup>147</sup>	6	

<sup>144</sup> **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<sup>145</sup> **Note 50:** For use in fish roe only.

<sup>146</sup> **Note 95:** For use in surimi and fish roe products only.

<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for sunset yellow FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	echinoderms					
09.3.1	fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	<b>300</b>	<b>mg/kg</b>	Note 16	6	
09.3.2	fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	<b>300</b>	<b>mg/kg</b>	Note 16	6	
09.3.3	salmon substitutes, caviar, and other fish roe products	<b>300</b>	<b>mg/kg</b>		6	
09.3.4	semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	<b>300</b>	<b>mg/kg</b>		6	
09.4	fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	<b>300</b>	<b>mg/kg</b>	<b>Note 95</b>	6	
10.1	fresh eggs		GMP	Note 4 <sup>148</sup>	6	
10.4	egg-based desserts (e.g., custard)	<b>50</b>	<b>mg/kg</b>		6	
12.2.2	seasonings and condiments	<b>300</b>	<b>mg/kg</b>		6	
12.4	mustards	<b>300</b>	<b>mg/kg</b>		6	
12.5	soups and broths	<b>50</b>	<b>mg/kg</b>		6	
12.6	sauces and like products	<b>300</b>	<b>mg/kg</b>		6	
12.9.5	other protein products	200	mg/kg		6	
13.3	dietetic foods intended for special medical purposes (excluding products of food category 13.1)	50	mg/kg		6	
13.4	dietetic formulae for slimming purposes and weight reduction	50	mg/kg		6	
13.5	dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	300	mg/kg		6	
13.6	food supplements	300	mg/kg		6	Sunset Yellow FCF (INS 110) is used in food supplements (category 13.6) to colour the coatings in the case of tablets and the shells in the case of capsules. When manufactured, most food supplements are white or beige in colour, even though they contain a range of active ingredients. Surface colouring of the products has been found to be the best way to differentiate between products, both in post production handling and for the consumer's own recognition and control.

<sup>147</sup> **Note 22:** For use in smoked fish products only.

<sup>148</sup> **Note 4:** For decoration, stamping, marking or branding the product.

<b>Recommendation 2 - Sunset Yellow FCF, INS 110</b>						
The eWG recommends that the 39 <sup>th</sup> CCFA <u>adopt</u> the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						Usage levels vary depending on the thickness of the coating or capsule shell in relation to the total weight of the product. However, all applications should be accommodated within a maximum level of 600mg / kg based on the weight of the colour component. At this level the average intake from supplements would be less than 5 mg per day.
14.2.2	cider and perry	200	mg/kg		6	
14.2.4	wines (other than grape)	200	mg/kg		6	
14.2.6	distilled spirituous beverages containing more than 15% alcohol	<b>200</b>	<b>mg/kg</b>		6	
14.2.7	aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg		6	
15.1	snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	<b>200</b>	<b>mg/kg</b>		3	

<b>Recommendation 3 - Sunset Yellow FCF, INS 110</b>						
<b>Comments are requested</b> on the following food additive provisions for sunset yellow FCF in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
<b>01.6.4.1</b>	<b>Plain processed cheese</b>	<b>200</b>	<b>mg/kg</b>		<b>6</b>	<b>Reassigned from broader food category</b>
14.1.4.1	carbonated water-based flavoured drinks	300	mg/kg		6	The eWG could not reach consensus on an ML for use in these categories. The eWG recommends that the CCFA consider whether an ML of 100 mg/kg is acceptable in the broader category food category 14.1.4 with Note 127 <sup>149</sup> . The eWG was informed that an ML of 50 mg/kg is not technologically feasible and would require significant product reformulations in many countries e.g., including Brazil and other MERCOSUR countries, Canada, Mexico and the U.S. It was noted that several countries permit up to 200-300 mg/kg in 14.1.4 and that 100 mg/kg represents a compromise that reflects current international practices. Consumers' preference of color intensity varies among countries and this drives the technological need. In some countries consumers expect more vibrant color than in others.
14.1.4.2	non-carbonated water-based flavoured drinks, including punches and ades	300	mg/kg		6	
14.1.4.3	concentrates (liquid or solid) for water-based flavoured drinks	391	mg/kg		6	
16.0	composite foods - foods that could not be placed in	500	mg/kg		6	Request justification for why the carry-over wouldn't be sufficient

<sup>149</sup> **Note 127:** As served to the consumer.

<b>Recommendation 3 - Sunset Yellow FCF, INS 110</b>						
<b>Comments are requested</b> on the following food additive provisions for sunset yellow FCF in the GSFA.						
<b>Food Cat No.</b>	<b>Food Category</b>	<b>Max</b>	<b>Level</b>	<b>Comments</b>	<b>Step</b>	<b>Justification provided to eWG</b>
	categories 01 - 15					

## Appendix I

## BHA Exposure Estimates

## Estimation of BHA/BHT intake in the Canadian children from selected food categories

Methodology:

The statistical probabilistic estimation of intake was based on a survey done in the Province of Québec in 1999 (Québec Youth Survey). 1932 children aged 6 to 16 were taken into account in this survey. Anthropometric measures (i.e. weights and heights) of 1919 out of 1932 participating children were included in the study. The survey design was developed by the Statistics Institute of Québec. A 24-hour recall was completed on all respondents, with a repeat recall done on about half of them. Data entry and analysis were done at Health Canada, with nutrient intakes estimated from the Canadian Nutrient File.

The list of categories of confectionery and decoration foods employed in the survey is attached on Annex A. Those foods correspond to the Codex Alimentarius General Standard for Food Additives FCS Categories 5.2 and 5.4. Data of ingested food items represent **single day intakes** as reported in the survey. Available data were not sufficient to extrapolate to usual intake estimates (none of the intakes were adjusted for day-to-day variability). The analysis was limited to the population of consumers of the selected candy products, that is, non-consumers were not included.

A confidence interval of 95% around percentile estimates was also provided. The Sudaan Release 9.0.1 statistical software was used to calculate the standard error of the means, percentages and percentiles of the estimated intakes.

Participating children were divided into two age categories, 6 to 11 and 12 to 16. Overall results for 6 to 16-year old were also provided. Calculation of intakes per kg body weight was done on an individual case by case basis, as reported in the survey.

Table 1 outlines general conditions of the probabilistic scenario, i.e. 200 ppm of BHA/BHT on fat basis (200 µg/g fat) in selected confectionery and decoration food products.

Results:

Table 2 shows the average amount of food product ingested daily (in grams, g) and the average daily ingested fat (in milligrams, mg) from those selected confectionery products. The percentage of consumer population exposed to BHA/BHT is indicated, followed by the estimated average daily BHA/BHT intake from those foods (in micrograms, µg). Then the estimated average intakes of selected confectionery products (g), their fat (mg) and BHA/BHT (µg) are shown on the basis of amounts per kg of body weight per day. An estimate of standard error, SE is given for each average and percentage estimate.

Table 3 shows the estimated distributions of ingested amounts of selected food products, fat and BHA/BHT from those foods, on the basis of absolute amounts per day, and on the basis of amounts per kg of body weight per day. A 95% confidence interval, reported as a lower limit (LL) and an upper limit (UP) around percentile estimates, is included. 50, 75, 90 and 95<sup>th</sup> percentiles are provided in this table with corresponding confidence intervals.

Discussion:

Children aged 6 to 11 who consume any of the selected candy products eat on average 21.7 g per day of these foods and consume on average 337 mg of fat from these products. However, for only 41% of the children who eat those candy products fat is present in some of the candy, and therefore only 41% of the selected candy eaters are exposed to BHA/BHT. The average daily intake of BHA/BHT in this age category is estimated at 67.4 µg, which results in 2.54 µg/kg b.w. For older children this figure is lower. For 12 to 16-year olds it is 0.92 µg/kg b.w and the overall 6 to 16-year old average is 1.82 µg/kg b.w. Compared with the ADI of 0.5 mg/kg b.w. for BHA and 0.3 mg/kg b.w. for BHT, the estimated contribution from Categories 5.2 and 5.4 in Canadian children for BHA would be 0.51% for 6 to 11-year olds; 0.18% for 12 to 16-year olds; and 0.36% for 6 to 16-year olds. For BHT, the corresponding figures are 0.85% for 6 to 11-year olds, 0.31% for 12 to 16-year olds and 0.61% for 6 to 16-year olds. In all cases, for both BHA and BHT intake in children, **the average contribution from Categories 5.2 and 5.4 appeared to be lower than 1%.**

Analysis of table 3 demonstrates that the extreme, 95<sup>th</sup> percentile consumer would ingest 63.5 g of the selected candy per day (almost 3-fold the mean). BHA/BHT intake would be 446.3 µg which corresponds to 13.4 µg/kg b.w./day. The confidence interval for this figure is relatively large (4.4 to 24.1) which suggests that the actual value of the 95<sup>th</sup> percentile could be as high as 24.1 µg/kg b.w./day. A comparison of the upper limit of 24.1 µg/kg b.w./day with the ADIs for BHA and BHT results in 4.8% of the ADI for BHA and 8.0% for BHT. For older children the figures are lower. **Thus in the worst case scenario (95<sup>th</sup> percentile of consumers only, upper confidence interval limit) intake of BHA in 6 to 11-year old children could be as high as 4.8% of ADI for BHA and 8.0% of ADI for BHT.**

## United States of America

### Estimation of BHA/BHT intake in children from selected food categories

An estimate for the intake of butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) by children from use in fat in foods from the General Standard for Food Additives (GSFA) food categories 5.2 (Confectionery including hard and soft candy, nougats, etc. other than food categories 05.1, 05.3, and 05.4) and 5.4 (Decorations (e.g., for fine bakery wares), toppings (non-fruit), and sweet sauces) was conducted. The estimate was performed using food consumption data from the 1994 – 1996 United States Department of Agriculture (USDA) Continuing Survey of Food Intakes by Individuals and 1998 Supplemental Children's Survey (1994 – 1996, 1998 CFSII). The 1994 – 1996, 1998 CFSII contains two days worth of intake data for approximately 20,000 individuals.

Three population groups were chosen for the intake estimate: 1) children from 1 to 6 years of age, 2) children from 7 to 12 years of age, and 3) all persons in the U.S. population 2 years of age and older. A total of 49 foods were chosen from the CSFII foodcode set to represent foods from GSFA food categories 5.2 and 5.4 (a list of the foodcodes used in the estimate is included as Attachment 1). An eaters-only intake estimate was performed such that only persons who consumed at least one food from the foodcode list on one or both days of the survey were included in the estimate. It was assumed that BHA/BHT were present in fat at the maximum level of 200 mg/kg. Information on the amount of fat in each foodcode was taken from the USDA National Nutrient Database. It should be noted that not all of the foods in the foodcode set contained fat.

The results of the intake estimate are presented in Table 1, below. Intake estimates at the mean, 90<sup>th</sup> percentile and 95<sup>th</sup> percentile are presented for each of the three population groups in the following categories: 1) eaters-only intake of food from GSFA food categories 5.2 and 5.4; 2) eaters-only intake of fat from consumption of food from GSFA categories 5.2 and 5.4; and 3) resultant intake of BHA/BHT from foods containing fat in GSFA food categories 5.2 and 5.4 (based on the assumption that all fat contains BHA or BHT at the maximum use level of 200 mg/kg). The U.S. typically uses the 90<sup>th</sup> percentile intake level as a representation of high intake; however, for the purposes of comparison with BHA/BHT intake estimates from other countries, 95<sup>th</sup> percentile intake estimates have also been included in Table 1.

Taking body weight into account, children aged 7-11 had the highest intake of BHA/BHT at the 90<sup>th</sup> percentile (17.4 µg/kg-bw/d for children aged 7-11 versus 16.4 µg/kg-bw/d for children aged 1-6 and 14.6 µg/kg-bw/d for the U.S. population aged 2 years and above). Given the BHA JECFA ADI of 0.5 mg/kg-bw/d, the contribution from GSFA food categories 5.2 and 5.4 at the 90<sup>th</sup> percentile corresponds to 3.3% of the BHA ADI for children aged 1-6, 3.5% of the BHA ADI for children aged 7-12, and 2.9% of the BHA ADI for the U.S. population aged 2 and above. Similarly, given the BHT JECFA ADI of 0.3 mg/kg-bw/d, the contribution from GSFA food categories 5.2 and 5.4 at the 90<sup>th</sup> percentile corresponds to 5.5% of the BHT ADI for children aged 1-6, 5.8% of the BHT ADI for children aged 7-12, and 4.9% of the BHT ADI for the U.S. population aged 2 and above.

Table 1. Eaters-only intake estimates for GSFA food categories 5.2 and 5.4

		<b>1-6 year olds</b> (17.5% of age group are eaters of foods in GSFA food categories 5.2 and 5.4)	<b>7-12 year olds</b> (24.1% of age group are eaters of foods in GSFA food categories 5.2 and 5.4)	<b>U.S. Population: persons aged 2 years and above</b> (11.7% of age group are eaters of foods in GSFA food categories 5.2 and 5.4)
<b>Intake of foods from GSFA food categories 5.2 and 5.4</b>	Mean	15.9 g/p/d (0.9 g/kg-bw/d)	20.9 g/p/d (0.6 g/kg-bw/d)	22.9 g/p/d (0.48 g/kg-bw/d)
	90 <sup>th</sup> %	36.1 g/p/d (2.0 g/kg-bw/d)	44.1 g/p/d (1.3 g/kg-bw/d)	55.1 g/p/d (1.1 g/kg-bw/d)
	95 <sup>th</sup> %	48.6 g/p/d (2.8 g/kg-bw/d)	65.7 g/p/d (1.8 g/kg-bw/d)	79.3 g/p/d (1.6 g/kg-bw/d)
<b>Intake of fat from foods in GSFA food categories 5.2 and 5.4</b>	Mean	0.5 g/p/d (27 mg/kg-bw/d)	1.0 g/p/d (28 mg/kg-bw/d)	1.3 g/p/d (24 mg/kg-bw/d)
	90 <sup>th</sup> %	1.6 g/p/d (82 mg/kg-bw/d)	2.8 g/p/d (87 mg/kg-bw/d)	4 g/p/d (73 mg/kg-bw/d)
	95 <sup>th</sup> %	2.3 g/p/d (129 mg/kg-bw/d)	5.0 g/p/d (132 mg/kg-bw/d)	6 g/p/d (111 mg/kg-bw/d)
<b>Intake of</b>	Mean	100 µg/p/d	193 µg/p/d	262 µg/p/d



<b>BHA/BHT (assuming maximum use level of 200 mg/kg in fat) from foods containing fat in GSFA food categories 5.2 and 5.4</b>		(5.4 µg/kg-bw/d)	(5.6 µg/kg-bw/d)	(4.8 µg/kg-bw/d)
	90 <sup>th</sup> %	329 µg/p/d (16.4 µg/kg-bw/d)	557 µg/p/d (17.4 µg/kg-bw/d)	816 µg/p/d (14.6 µg/kg-bw/d)
	95 <sup>th</sup> %	468 µg/p/d (25.8 µg/kg-bw/d)	990 µg/p/d (26.4 µg/kg-bw/d)	1190 µg/p/d (22.2 µg/kg-bw/d)

**Attachment 1**

List of USDA food codes corresponding to GSFA food categories 5.2 and 5.4

<b>USDA Food Code</b>	<b>Description</b>
91304010	Topping, butterscotch or caramel
91304020	Topping, chocolate, thick, fudge type
91304040	Topping, marshmallow
91304060	Topping, nut (wet)
91304070	Topping, peanut butter, thick, fudge type
91304090	Topping, chocolate flavored hazelnut spread
91304300	Topping, chocolate, hard coating
91305010	Icing, chocolate
91305020	Icing, white
91361040	Plain dessert sauce
91702010	Butterscotch morsels
91703010	Caramel, chocolate-flavored roll
91703020	Caramel, flavor other than chocolate
91703030	Caramel, with nuts
91703040	Caramel, chocolate covered
91703060	Caramel with nuts, chocolate covered
91709000	Gumdrops, chocolate covered
91713010	Fudge, chocolate, chocolate-coated
91713030	Fudge, chocolate
91713040	Fudge, chocolate, with nuts
91713050	Fudge, peanut butter
91713060	Fudge, peanut butter, with nuts
91713070	Fudge, vanilla
91713090	Fudge, divinity
91715000	Fudge, caramel and nut, chocolate-coated
91718000	Honey-combed hard candy with peanut butter
91718200	Chocolate-flavored sprinkles
91721000	Licorice
91726000	Nougat, plain
91728000	Nut roll, fudge or nougat, caramel and nuts
91733000	Peanut brittle
91734200	Reese's Pieces
91734500	Peanut butter morsels
91735000	Pralines
91742010	Sesame Crunch (Sahadi)
91745010	Gumdrops
91745020	Hard candy
91745040	Butterscotch hard candy
91745100	Skittles
91750000	Taffy
91760000	Toffee, plain
91760100	Toffee, chocolate covered
91760200	Toffee, chocolate-coated, with nuts
91760700	Wax candy, liquid filled
91770000	Dietetic or low calorie candy, NFS
91770010	Dietetic or low calorie gumdrops
91770020	Dietetic or low calorie hard candy
91770030	Dietetic or low calorie candy, chocolate covered
91770050	Dietetic or low calorie mints

Appendix II		
Food Categories in which the Use of Sweeteners is Technologically Justified		
Food Cat. No.	Food Category Title	Justification Provided to eWG
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	Include at request of Brazil and the European Commission.
01.3.2	Beverage whiteners	1) Use of sweeteners is not technologically justified. 2) Food products in this category containing intense sweeteners are already on the market. Analogues are processed foods and therefore sweeteners should be allowed to be included here. (e.g., coffee creamers).
01.4.4	Cream analogues	1) Use of sweeteners is not technologically justified. 2) Food products in this category containing intense sweeteners are already on the market. Analogues are processed foods and therefore sweeteners should be allowed to be included here. (e.g., coffee creamers).
01.5.2	Milk and cream powder analogues	1) Use of sweeteners is not technologically justified. 2) Food products in this category containing intense sweeteners are already on the market. Analogues are processed foods and therefore sweeteners should be allowed to be included here.
01.6.5	Cheese analogues	1) Use of sweeteners is not technologically justified. 2) Food products in this category containing intense sweeteners are already on the market. Analogues are processed foods and therefore sweeteners should be allowed to be included here.
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	Include at request of Brazil and the European Commission.
02.3	Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	1) Use of sweeteners is not technologically justified. 2) Use of intense sweeteners in fat emulsions allows for the manufacture of pre-sweetened, flavoured products, as this category includes products with added flavours. They have the same technological requirements as their dairy-based counterparts.
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7	Include at request of Brazil and the European Commission.
3.0	Edible ices, including sherbet and sorbet	Include at request of Brazil and the European Commission.
04.1.2.3	Fruit in vinegar, oil, or brine	Include at request of Brazil and the European Commission.
04.1.2.4	Canned or bottled (pasteurized) fruit	Include at request of Brazil and the European Commission.
04.1.2.5	Jams, jellies, marmelades	Include at request of Brazil and the European Commission.
04.1.2.6	Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	Include at request of Brazil and the European Commission.
04.1.2.7	Candied fruit	Include at request of Brazil and the European Commission.
04.1.2.8	Fruit preparations, including pulp, purees, fruit toppings and coconut milk	Include at request of Brazil and the European Commission.
04.1.2.9	Fruit-based desserts, incl. fruit-flavoured water-based desserts	Include at request of Brazil and the European Commission.
04.1.2.10	Fermented fruit products	Include at request of Brazil and the European Commission.
04.1.2.11	Fruit fillings for pastries	Include at request of Brazil and the European Commission.
04.1.2.12	Cooked fruit	Include at request of Brazil and the European Commission.
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds in vinegar, oil, brine, or soy sauce	Include at request of Brazil and the European Commission.
04.2.2.5	Vegetable (including mushrooms and fungi, roots and	1) Use of sweeteners is <u>not</u> technologically justified

Appendix II		
Food Categories in which the Use of Sweeteners is Technologically Justified		
Food Cat. No.	Food Category Title	Justification Provided to eWG
	tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	2) Use of sweeteners is technologically justified
04.2.2.6	Vegetable, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	Include at request of Brazil and the European Commission.
04.2.2.7	Fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweed products, excluding fermented soybean products of food category 12.10	Examples are requested
05.1.2	Cocoa mixes (syrops)	Include at request of Brazil and the European Commission.
05.1.3	Cocoa-based spreads, incl. fillings	Include at request of Brazil and the European Commission.
05.1.4	Cocoa and chocolate products	Include at request of Brazil and the European Commission.
05.1.5	Imitation chocolate, chocolate substitute products	Include at request of Brazil and the European Commission.
05.2	Confectionery including hard and soft candy, nougats, etc. other than food categories 05.1, 05.3 and 05.4	Include at request of Brazil and the European Commission.
05.2.1	Hard candy	Include at request of Brazil and the European Commission.
05.2.2	Soft candy	Include at request of Brazil and the European Commission.
05.2.3	Nougats and marzipans	Include at request of Brazil and the European Commission.
05.3	Chewing gum	Include at request of Brazil and the European Commission.
05.4	Decorations (e.g., for fine bakery wares), toppings (non-fruit), and sweet sauces	Include at request of Brazil and the European Commission.
06.3	Breakfast cereals, including rolled oats	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is technologically justified
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	Include at request of Brazil and the European Commission.
06.7	Pre-cooked or processed rice products, including rice cakes (Oriental type only)	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is technologically justified
07.1	Bread and ordinary bakery wares	
07.2	Fine bakery wares (sweet, salty, savoury) and mixes	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is technologically justified
09.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	Examples are requested
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	Examples are requested
10.4	Egg-based desserts (e.g., custard)	Include at request of Brazil and the European Commission.
11.4	Other sugars and syrups, xylose, maple sugar, sugar toppings	Examples are requested
11.6	Table-top sweeteners, including those containing high-intensity sweeteners	Include at request of Brazil and the European Commission.
12.2	Herbs, spices, seasonings and condiments (e.g., seasoning for instant noodles)	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is technologically justified
12.3	Vinegars	1) Use of sweeteners is not technologically justified. 2) Vinegar is rounded and mellowed by addition of sweet-tasting, flavour-enhancing products. Intense sweeteners balance acidity well.
12.4	Mustards	1) Include at the request of the European Commission. 2) Clarification is requested on whether this is a sweetener or flavor enhancer use?
12.5	Soups and broths	1) Include at the request of the European

Appendix II		
Food Categories in which the Use of Sweeteners is Technologically Justified		
Food Cat. No.	Food Category Title	Justification Provided to eWG
		Commission. 2) Clarification is requested on whether this is a sweetener or flavor enhancer use?
12.6	Sauces and like products	Include at request of Brazil and the European Commission.
12.7	Salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa-and nut-based spreads of food categories 04.2.2.5 and 05.1.3	1) Include at the request of the European Commission. 2) Clarification is requested on whether this is a sweetener or flavor enhancer use?
13.3	Dietetic foods intended for special medical purposes (excluding products of food category 13.1)	Include at request of Brazil and the European Commission.
13.4	Dietetic formulae for slimming purposes and weight reduction	Include at request of Brazil and the European Commission.
13.5	Dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1- 13.4 and 13.6	Include at request of Brazil and the European Commission.
13.6	Food supplements	Include at request of Brazil and the European Commission.
14.1.2.2	Vegetable juice	Include at request of Brazil and the European Commission.
14.1.2.4	Concentrates for vegetable juice	Include at request of Brazil and the European Commission.
14.1.3.1	Fruit nectar	1) Include at the request of Brasil, EC, ICBA and IFAC. 2) Sweeteners are permitted for use in fruit nectars in many countries and adopted provisions for sweeteners exist in the Codex General Standard for Food Additives.
14.1.3.2	Vegetable nectar	Include at request of Brazil and the European Commission.
14.1.3.3	Concentrates for fruit nectar	1) Include at the request of Brazil. 2) Sweeteners are permitted for use in fruit nectars in many countries and adopted provisions for sweeteners exist in the Codex General Standard for Food Additives.
14.1.3.4	Concentrates for vegetable nectar	Include at request of Brazil and the European Commission.
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	Include at request of Brazil and the European Commission.
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	Intense sweeteners are widely used in these beverages (ready-to-drink as well as concentrates), owing to their relative stability in liquids. Sweeteners are already used in this category in Japan and several other countries in water and milk-based malted beverages.
14.2.1	Beer and malt beverages	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is <u>technologically justified</u>
14.2.2	Cider and perry	Include at request of Brazil and the European Commission
14.2.4	Wines (other than grapes)	1) Use of sweeteners is <u>not</u> technologically justified 2) Use of sweeteners is <u>technologically justified</u>
14.2.7	Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low-alcoholic refreshers)	Include at request of Brazil and the European Commission
15.0	Ready-to-eat savouries	Include at request of Brazil and the European Commission

Appendix III		
GSFA Categories in which the use of one or more colors is justified		
FCS No.	Title	Justification
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	Include because the CCMMP is revising the standard for fermented milk drinks that will likely contain provisions for colors.
01.3.2	Beverage whiteners	Include because there are adopted provisions for colors in these GSFA food categories
01.4.4	Cream analogues	
01.5.2	Milk and cream powder analogues	
01.6.1	Unripened cheese	
01.6.2	Ripened cheese	Include because CX STANs C-31, A6, 221 and the draft mozzarella standard contain provisions for colors
01.6.2.1	Ripened cheese, includes rind	
01.6.2.2	Rind of ripened cheese	
01.6.2.3	Cheese powder (for reconstitution; e.g., for cheese sauces)	
01.6.4	Processed cheese	Include because CX STANs A8a, b & c contains provisions for colors that apply to these food categories
01.6.4.1	Plain processed cheese	
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	
01.6.5	Cheese analogues	
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	Include because there are provisions for colors adopted for this GSFA food category
02.1.3	Lard, tallow, fish oil, and other animal fats	Include because CX STAN 19 contains provisions for colors that apply to this food category
02.2.1	Emulsions containing at least 80% fat	Add at request of European Commission
02.2.1.1	Butter and concentrated butter	Include because CX Stan 01 contains provisions for colors that apply to this food category
02.2.1.2	Margarine and similar products	Include because CX STAN 32 contains provisions for colors and there are adopted provisions for colors in these GSFA food categories
02.2.1.3	Blends of butter and margarine	
02.2.2	Emulsions containing less than 80% fat	
02.3	Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7	
03.0	Edible ices, including sherbet and sorbet	
04.1.1.2	Surface-treated fresh fruit	Include with Note 4 <sup>150</sup> and 16 <sup>151</sup>
04.1.2.2	Dried fruit	Include because of the following justification: due to the effect of temperature during processing and storage affecting the discoloration of the dried fruit. Dried fruit will loose original natural flesh color in processing and aging
04.1.2.3	Fruit in vinegar, oil, or brine	Include because there are adopted provisions for colors in this GSFA food category
04.1.2.4	Canned or bottled (pasteurized) fruit	Include because CX STANs 60, 61, 61, 78, 99, 159, 242 all contain provisions for colors that apply to this food category
04.1.2.5	Jams, jellies, marmelades	Include because CX STANs 79 and 80 contain provisions for colors and there are adopted provisions for colors in these GSFA food categories
04.1.2.6	Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	
04.1.2.7	Candied fruit	
04.1.2.8	Fruit preparations, including pulp, purees, fruit toppings and coconut milk	
04.1.2.9	Fruit-based desserts, incl. fruit-flavoured water-based desserts	
04.1.2.10	Fermented fruit products	
04.1.2.11	Fruit fillings for pastries	
04.1.2.12	Cooked fruit	
04.2.1.2	Surface-treated fresh vegetables (including mushrooms and fungi,	Include with Note 4 and 16

<sup>150</sup> **Note 4** For decoration, stamping, marking or branding the product.

<sup>151</sup> **Note 16** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.

<b>Appendix III</b>		
<b>GSFA Categories in which the use of one or more colors is justified</b>		
<b>FCS No.</b>	<b>Title</b>	<b>Justification</b>
	roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	
04.2.2.2	Dried vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	Include because of the following justification: due to the effect of temperature during processing and storage affecting the discoloration of the dried fruit. Dried fruit will lose original natural flesh color in processing and aging
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds in vinegar, oil, brine, or soy sauce	Include because CX STANs 55, 58, 81, and 115 contains provisions for colors and here are adopted provisions for colors in these GSFA food categories
04.2.2.4	Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	
04.2.2.5	Vegetable, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	
04.2.2.6	Vegetable, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5	
04.2.2.7	Fermented vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweed products, excluding fermented soybean products of food category 12.10	
04.2.2.8	Cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	
05.1.2	Cocoa mixes (syrups)	
05.1.3	Cocoa-based spreads, incl. fillings	
05.1.4	Cocoa and chocolate products	
05.1.5	Imitation chocolate, chocolate substitute products	
05.2	Confectionery including hard and soft candy, nougats, etc. other than food categories 05.1, 05.3, and 05.4	
05.2.1	Hard candy	
05.2.2	Soft candy	
05.2.3	Nougats and marzipans	
05.3	Chewing gum	
05.4	Decorations (e.g., for fine bakery wares), toppings (non-fruit), and sweet sauces	
06.3	Breakfast cereals, including rolled oats	
06.4.3	Pre-cooked pastas and noodles and like products	Include because CX STAN 249 (Instant Noodles) contains color provisions
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	Include because there are adopted provisions for colors in these GSFA food categories
06.6	Batters (e.g., for breading or batters for fish or poultry)	
06.7	Pre-cooked or processed rice products, including rice cakes (Oriental type only)	Include at request of the European Commission
06.8	Soybean products (excluding soybean products of food category 12.9 and fermented soybean products of food category 12.10)	
07.1.2	Crackers, excluding sweet crackers	Include because there are adopted provisions for colors in these GSFA food categories
07.1.4	Bread-type products, including bread stuffing and bread crumbs	
07.2	Fine bakery wares (sweet, salty, savoury) and mixes	
07.2.1	Cakes, cookies and pies (e.g., fruit-filled or custard types)	
07.2.2	Other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)	
07.2.3	Mixes for fine bakery wares (e.g., cakes, pancakes)	
08.1	Fresh meat, poultry and game	Include with Note 4
08.1.1	Fresh meat, poultry and game, whole pieces or cuts	Include with Note 4
08.1.2	Fresh meat, poultry and game, comminuted	Include with Note 16
08.2	Processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.2.1	Non-heat treated processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16

<b>Appendix III</b>		
<b>GSFA Categories in which the use of one or more colors is justified</b>		
<b>FCS No.</b>	<b>Title</b>	<b>Justification</b>
08.2.1.1	Cured (including salted) non-heat treated processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.2.1.2	Cured (including salted) and dried non-heat treated processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.2.1.3	Fermented non-heat treated processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.2.2	Heat-treated processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.2.3	Frozen processed meat, poultry, and game products in whole pieces or cuts	Include with Note 16
08.3	Processed comminuted meat, poultry, and game products	Include with Note 16
08.3.1	Non-heat treated processed comminuted meat, poultry, and game products	Include with Note 16
08.3.1.1	Cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	Include with Note 16
08.3.1.2	Cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	Include with Note 16
08.3.1.3	Fermented non-heat treated processed comminuted meat, poultry, and game products	Include with Note 16
08.3.2	Heat-treated processed comminuted meat, poultry, and game products	Include with Note 16
08.3.3	Frozen processed comminuted meat, poultry, and game products	Include with Note 16
08.4	Edible casings (e.g., sausage casings)	Include with Note 16
09.1	Fresh fish and fish products, including mollusks, crustaceans, and echinoderms	Include with Note 16
09.1.1	Fresh fish	Include with Note 16
09.1.2	Fresh mollusks, crustaceans and echinoderms	Include with Note 16
09.2	Processed fish and fish products, including mollusks, crustaceans, and echinoderms	Include because there are adopted provisions for colors in this GSFA food category
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	Include with Note 95 <sup>152</sup>
09.2.2	Frozen battered fish, fish fillets and fish products, including mollusks, crustaceans, and echinoderms	Include with Note 16
09.2.3	Frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms	Include with Note X <sup>153</sup>
09.2.4	Cooked and/or fried fish and fish products, including mollusks, crustaceans, and echinoderms	Include because there are adopted provisions for colors in this GSFA food category
09.2.4.1	Cooked fish and fish products	Include with Note 95
09.2.4.2	Cooked mollusks, crustaceans, and echinoderms	Include because there are adopted provisions for colors in this GSFA food category
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	Include with Note 16
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	Include because there are adopted provisions for colors in these GSFA food categories
09.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	Include because there are adopted provisions for colors in these GSFA food categories
09.3.1	Fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	Include with Note 16
09.3.2	Fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	
09.3.3	Salmon substitutes, caviar, and other fish roe products	Include because there are adopted provisions for colors in this GSFA food category
09.3.4	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste), excluding products of food categories 09.3.1 - 09.3.3	Include because there are adopted provisions for colors in this GSFA food category
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	Include with Note 95

<sup>152</sup> **Note 95** For use in surimi and fish roe products only

<sup>153</sup> **Note X** For use in surimi only.

<b>Appendix III</b>		
<b>GSFA Categories in which the use of one or more colors is justified</b>		
<b>FCS No.</b>	<b>Title</b>	<b>Justification</b>
10.1	Fresh eggs	Include with Note 4
10.2	Egg products	Include because there are adopted provisions for colors in these GSFA food categories
10.2.1	Liquid egg products	
10.2.2	Frozen egg products	
10.2.3	Dried and/or heat coagulated egg products	
10.3	Preserved eggs, including alkaline, salted, and canned eggs	Include with Note 4 (For decoration stamping, marking or branding the product)
10.4	Egg-based desserts (e.g., custard)	Include because there are adopted provisions for colors in this GSFA food category
11.3	Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	
12.2.2	Seasonings and condiments	Include because CS STAN 117 contains provisions for colors and there are adopted provisions for colors in this GSFA food category
12.3	Vinegars	
12.4	Mustards	
12.5	Soups and broths	
12.5.1	Ready-to-eat soups and broths, including canned, bottled, and frozen	
12.5.2	Mixes for soups and broths	
12.6	Sauces and like products	
12.6.1	Emulsified sauces (e.g., mayonnaise, salad dressing)	
12.6.2	Non-emulsified sauces (e.g., ketchup, cheese sauce, cream sauce, brown gravy)	
12.6.3	Mixes for sauces and gravies	
12.6.4	Clear sauces (e.g., fish sauce)	
12.7	Salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa-and nut-based spreads of food categories 04.2.2.5 and 05.1.3	
12.9	Protein products	
12.9.1	Soybean protein products	
12.9.1.1	Soybean beverage	
12.9.1.2	Soybean milk film	
12.9.1.3	Other soybean protein products (including non-fermented soy sauce)	
12.9.2	Fresh bean curd (tofu)	
12.9.3	Semi-dehydrated bean curd	
12.9.3.1	Thick gravy-stewed semi-dehydrated bean curd	
12.9.3.2	Deep fried semi-dehydrated bean curd	
12.9.3.3	Semi-dehydrated bean curd, other than food categories 12.9.3.1 and 12.9.3.2	
12.9.4	Dehydrated bean curd (kori tofu)	
12.9.5	Other protein products	
12.10	Fermented soybean products	
12.10.1	Fermented soybeans (e.g., natto)	
12.10.2	Fermented soybean curd (soybean cheese)	
12.10.3	Fermented soybean paste (e.g., miso)	
12.10.4	Fermented soy sauce	
13.3	Dietetic foods intended for special medical purposes (excluding products of food category 13.1)	Include because there are adopted provisions for colors in this GSFA food category
13.4	Dietetic formulae for slimming purposes and weight reduction	
13.5	Dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1- 13.4 and 13.6	
13.6	Food supplements	
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	Include based on the following justifications. 1) Caramel colour, flavours and caffeine
14.1.4.1	Carbonated water-based flavoured drinks	
14.1.4.2	Non-carbonated water-based flavoured drinks, including punches and ades	
14.1.4.3	Concentrates (liquid or solid) for water-based flavoured drinks	
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	



<b>Appendix III</b>		
<b>GSFA Categories in which the use of one or more colors is justified</b>		
<b>FCS No.</b>	<b>Title</b>	<b>Justification</b>
		<p>are dried on maltodextrin, which is added to dried coffee, in order to make an extended mix which is used as a coffee substitute in Russia (e.g. by the Russian military).</p> <p>2) This category includes canned coffees that are served hot. The use of caramel color is technologically justified in such products due to a specific manufacturing method (retort sterilization) that may change the color during processing. Caramel color is added to provide a consistent color of the product that is expected by consumers. Such coffees are widely marketed in Japan.</p>
14.2.1	Beer and malt beverages	<p>Include because there are adopted provisions for colors in this GSFA food category</p>
14.2.2	Cider and perry	
14.2.3.3	Fortified grape wine, grape liquor wine, and sweet grape wine	
14.2.4	Wines (other than grape)	
14.2.6	Distilled spirituous beverages containing more than 15% alcohol	
14.2.7	Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low-alcoholic refreshers)	
15.0	Ready-to-eat savouries	
15.1	Snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	
15.2	Processed nuts, including coated nuts and nut mixtures (with e.g., dried fruit)	
15.3	Snacks - fish based	
16.0	Composite foods - foods that could not be placed in categories 01 - 15	