

codex alimentarius commissio E



FOOD AND AGRICULTURE
ORGANIZATION
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Agenda Item 5(a)

CX/FA 08/40/5 Part 2 Rev.

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Fortieth Session

Beijing, China, 21-25 April 2008

PART 2¹

REPORT OF THE ELECTRONIC WORKING GROUP ON THE GSFA

(Prepared by the United States of America with the assistance of Brazil, Canada, European Community, Japan, Malaysia, AIDGUM, CEFIC, CEFS, EFEMA, IADSA, ICA, ICBA, ICGA, IDF, IFAC, ISA, NATCOL, and OIV)

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 31 March 2008** 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 *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 - *preferably*).

COLOURS

1. The 38th 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 II). 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 4² and Note 16³ 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).
3. The previous recommendations of the eWG (CX/FA 07/39/9 Parts 1 and 2) were not fully considered by the 39th CCFA. Those recommendations were reconsidered by the current eWG.

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 II), 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.

RIBOFLAVINS (INS 101(i), 101(ii))

4. The 28th CAC has adopted several provisions in the GSFA for the use of riboflavins.

¹ 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).

² **Note 4** For decoration, stamping, marking or branding the product.

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

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

Recommendation 1 – Riboflavins, INS 101(i), 101(ii)						
The eWG recommends that the 40 th CCFA discontinue 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
04.1.2.3	Fruit in vinegar, oil, or brine	300	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	10	mg/kg		6	Use could mislead 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
16.0	Composite foods - foods that could not be placed in categories 01 - 15	300	mg/kg		3	

Recommendation 2 - Riboflavins, INS 101(i), 101(ii)						
The eWG recommends that the 40 th CCFA adopt 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
04.1.2.10	Fermented fruit products	500	mg/kg		3	New proposal added for consistency with the food additive provisions of the Draft Codex Standard for Pickled Fruits and Vegetables which was endorsed by the 39 th CCFA, (Appendix V of ALINORM 07/30/12)
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	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	500	mg/kg		3	New proposal added for consistency with the food additive provisions of the Draft Codex Standard for Pickled Fruits and Vegetables which was endorsed by the 39 th CCFA, (Appendix V of ALINORM 07/30/12)
08.0	Meat and meat products, including poultry and game	1000	mg/kg		6	Adopt in subcategories 08.2, 08.3 and 08.4, only.
08.2	Processed meat, poultry, and game products in whole pieces or cuts	1000	mg/kg			Consequential effect is to discontinue provision in broader food category 08.0
08.3	Processed comminuted meat,	1000	mg/kg			

Recommendation 2 - Riboflavins, INS 101(i), 101(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for riboflavins in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	poultry, and game products					To improve organoleptic properties of food in categories 08.2, 08.3, and 08.4
08.4	Edible casings (e.g., sausage casings)	1000	mg/kg			
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	1000	mg/kg	Note 95	6	
09.2.4.1	Cooked fish and fish products	300	mg/kg	Note 95	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	Note 95	6	
14.1.3.2	Vegetable nectar	300	mg/kg		3	
14.1.3.4	Concentrates for vegetable nectar	300	mg/kg	Note 127	3	

SUNSET YELLOW FCF (INS 110)

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

Recommendation 1 – Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th CCFA discontinue 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
02.2.1.2	Margarine and similar products		GMP		6	
04.1.1.2	Surface-treated fresh fruit	500	mg/kg	Note 16	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	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	
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 (syrops)	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	300	mg/kg		6	

Recommendation 1 – Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th CCFA discontinue 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
	toppings)					
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	1) Use could mislead the consumer and there is no technological need. 2) The use of colours in tea, coffee and coffee substitutes are not allowed in Malaysia under the national legislation.)
15.2	Processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg		6	

Recommendation 2 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th CCFA adopt 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	6	Use of a colouring agent is technologically justified
01.6.1	Unripened cheese	300	mg/kg	Note 3	6	To color surfaces and to standardize color between batches of product.
01.6.2.2	Rind of ripened cheese	100	mg/kg		6	
01.6.4	Processed cheese	200	mg/kg		6	Reassign to subcategories 01.6.4.1 and 01.6.4.2, only
01.6.4.1	Plain processed cheese	200	mg/kg		6	Reassigned from broader food category 1) Used to color the surface 2) Maximum levels are justified to achieve the intended technological need
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat etc	100	mg/kg		6	Reassigned from broader food category
01.6.5	Cheese analogues	300	mg/kg	Note 3	6	Provide coloring to standardize 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,	300	mg/kg	Note 4 & 16	6	

Recommendation 2 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th 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
	roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds					
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	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	<p>Technological need/level justification</p> <p>This additive is needed to obtain desired orange yellow colors in 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</p>

Recommendation 2 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th 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
						product. Safety The JECFA ADI for Sunset yellow FCF is 2.5 mg/kg body weight. Consumption of 3 g of chewing gum ⁴ 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.
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	
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	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	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	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,	300	mg/kg	Note 16	6	

⁴ 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 18th 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.

Recommendation 2 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th 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
	and echinoderms					
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 22	6	
09.3.1	Fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly	300	mg/kg	Note 16	6	
09.3.2	Fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	300	mg/kg	Note 16	6	
09.3.3	Salmon substitutes, caviar, and other fish roe products	300	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	300	mg/kg		6	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 95	6	
10.1	Fresh eggs		GMP	Note 4	6	
10.4	Egg-based desserts (e.g., custard)	50	mg/kg		6	
12.2.2	Seasonings and condiments	300	mg/kg		6	
12.4	Mustards	300	mg/kg		6	
12.5	Soups and broths	50	mg/kg		6	
12.6	Sauces and like products	300	mg/kg		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. 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.

Recommendation 2 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th 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
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	100	mg/kg	Notes 127 & 161		Adopt 100 mg/kg in the broader food category 14.1.4 with Notes 127 and 161 1) 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. 2) 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. 3) 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.
14.1.4.1	Carbonated water-based flavoured drinks	100	mg/kg		6	
14.1.4.2	Non-carbonated water-based flavoured drinks, including punches and ades	100	mg/kg		6	
14.1.4.3	Concentrates (liquid or solid) for water-based flavoured 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	200	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		3	

Recommendation 3 - Sunset Yellow FCF, INS 110						
The eWG recommends that the 40 th CCFA <u>discuss further</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
05.1.5	Imitation chocolate, chocolate substitute products	300	mg/kg		6	Suggestion to lower ML to 50 mg/kg for intake considerations
16.0	Composite foods - foods that could not be placed in categories 01 - 15	500	mg/kg		6	1) Used for composite food 2) Maximum levels are justified to achieve the intended technological need 3) Suggestion that if provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions)

CARMINES (INS 120)

7. The 28th CAC has adopted several provisions in the GSFA for the use of carmines.

8. At the 55th 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.

Recommendation 1 - Carmines, INS 120					
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for carmines in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification
15.3	Snacks – fish based	200	mg/kg	Note BB	1) Used to color snacks; level is justified to achieve the intended technological need 2) Colour required to identify flavour, to provide colour. 3) Support for 200 mg/kg as adopted for category 15.1, which is technical relevant

Recommendation 2 - Carmines, INS 120						
The eWG recommends that the 40 th CCFA adopt 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	Notes 3 & BB	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 ⁵	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) Technical need / level justification 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 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

⁵ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

Recommendation 2 - Carmines, INS 120						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>varying the ratio of Carmine and the blue colour component. 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. 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>500 mg/kg expressed as carminic acid (1000 mg/kg expressed as carmines) is technologically relevant. A wide range of colours is equally justified and should be equally permitted.</p> <p>2) Safety justification The JECFA ADI value for Carmine is 0-5 mg/kg body weight. Consumption of 3g chewing gum⁶ 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>
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 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	Adopt in subcategories 07.1.2 and 07.1.4, only. Consequential effect is to discontinue provision in broader food category 07.1
07.1.2	Crackers, excluding sweet crackers	200	mg/kg	Note BB		
07.1.4	Bread-type products, including bread stuffing and bread crumbs	500	mg/kg	Note BB	3	
						Revise to provisions in food subcategories 07.1.2 and 07.1.4, only

⁶ 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 18th 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.

Recommendation 2 - Carmines, INS 120						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						Used in breads 07.1.2 - 1) Used to color crackers; level is justified to achieve the intended technological need 2) Colour required to identify flavour. 07.1.4 - 1) Used to color croutons; level is justified to achieve the intended technological need 2) Colour required to identify flavour, to provide colour.
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 95	3	
09.2.2	Frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Notes 16 & 95	6	Adopt 500 mg/kg with Notes 16 and 95
09.2.2	Frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg		3	
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Notes 16 & 95	6	Adopt 500 mg/kg with Notes 16 & 95.
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	150	mg/kg		3	
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	100	mg/kg	Note BB	6	<p>1) The expression of the maximum level for "carmines" is unclear considering that the JECFA ADI is not 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></p>

Recommendation 2 - Carmines, INS 120						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carmines in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>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> <p>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.</p> <p>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.</p>
14.2.7	Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	200	mg/kg	Note BB	6	Adopt 200 mg/kg with Note BB. This is the level that is technically relevant. A wide range of colours is equally justified and should be equally permitted
14.2.7	Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers)	500	mg/kg		3	

PONCEAU 4R (COCHINEAL RED A) (INS 124)

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

Recommendation 1 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for ponceau 4R (cochineal red A), in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Justification	
07.2.1	Cakes, cookies and pies (e.g., fruit-filled or custard types)	50	mg/kg			
07.2.2	Other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)	50	mg/kg			
07.2.3	Mixes for fine bakery wares (e.g., cakes, pancakes)	50	mg/kg			

Recommendation 2 – Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA discontinue 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
04.1.1.2	Surface-treated fresh fruit	500	mg/kg	Note 16	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,	200	mg/kg		6	

Recommendation 2 – Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA discontinue 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
	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)	100	mg/kg		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		6	
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	Notes 4 & 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	6	Food category is not one in which use of one or more colors is justified (based on eWG 2008 proposed recommendation)
09.1.2	Fresh mollusks, crustaceans, and echinoderms	500	mg/kg	Notes 4 & 16	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	

Recommendation 3 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	150	mg/kg		6	Level of use will provide the intensity required for the product
01.6.1	Unripened cheese	100	mg/kg	Note 3		1) Used to color the surface 2) Maximum levels are justified to achieve the intended technological need
01.6.2.2	Rind of ripened cheese	100	mg/kg		6	
01.6.4	Processed cheese	200	mg/kg		6	Adopt in subcategory 01.6.4.2 only.
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	100	mg/kg			Consequential effect is to discontinue provision in broader food category 01.6.4 Reassigned to subcategory 01.6.4.2, only Reassigned from broader food category.
01.6.5	Cheese analogues	100	mg/kg	Note 3	3	Food category in which use of one or more colors is justified
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	
04.1.2.4	Canned or bottled (pasteurized) fruit	300	mg/kg		6	1) Used to color bottled fruit; 2) Maximum levels are justified to achieve the intended technological need
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	
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	Food category in which use of one or more colors is justified
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	

Recommendation 3 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
05.3	Chewing gum	300	mg/kg		6	<p>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 acceptable color.</p> <p>Safety</p> <p>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 gum⁷ 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.</p>
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	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	Notes 16 & 95	6	
09.2.4.1	Cooked fish and fish products	500	mg/kg	Note 95	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	100	mg/kg	Note 22	6	
09.3.3	Salmon substitutes, caviar, and other fish roe products	500	mg/kg		6	

⁷ 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 18th 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.

Recommendation 3 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for ponceau 4R 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	100	mg/kg		6	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg		6	
10.1	Fresh eggs	500	mg/kg	Note 4	3	Food category in which use of one or more colors is justified
10.4	Egg-based desserts (e.g., custard)	50	mg/kg		6	
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	300	mg/kg		6	1) Used for topping syrups; maximum levels are justified to achieve the intended technological need 3) There is a technological need for decorating bakery products (e.g., coloured sugar crystals for cookies) at the maximum level of 300 mg/kg. 4) Provisions for other colours, as allured red, canthaxanthin and caramel class III, are being adopted.
12.2.2	Seasonings and condiments	500	mg/kg		6	
12.4	Mustards	300	mg/kg		6	
12.5	Soups and broths	50	mg/kg		6	
12.6	Sauces and like products	50	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	200	mg/kg		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	Food category in which use of one or more colors is justified
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	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. 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

Recommendation 3 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						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	50	mg/kg		6	Support for ML of 50 mg/kg; technologically possible to reduce or replace the color in a small number of formations where higher levels have been used to create the desired shades.
14.2.2	Cider and perry	200	mg/kg		6	
14.2.4	Wines (other than grape)	200	mg/kg		6	1)Used for products such as fruit wines; 2) maximum levels are justified to achieve the intended technological need
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	

Recommendation 4 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA discuss further the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
07.0	Bakery wares	200	mg/kg		6	1) Bakery products using colored grapes are sold 2) Maximum levels are justified to achieve the intended technological need 3) Suggestion to discuss the subcategories separately. In Brazil, the use of ponceau 4R is authorized at the maximum level of 50 mg/kg for cookies, cakes and pies, and for mixtures to prepare them. Colours are not permitted for bread.
11.6	Table-top sweeteners, including those containing high-intensity sweeteners	200	mg/kg		6	1) Used for table-top sweeteners; maximum levels are justified to achieve the intended technological need 2) Producers of tabletop sweeteners, see no need or justification for the use of Ponceau 4R (INS 124) in tabletop sweetener preparations. 3) there isn't a consumer expectative to have this product coloured. Suggestion: the addition of a subcategory for flavoured table-top sweeteners, which could be coloured.)

Recommendation 4 - Ponceau 4R (Cochineal Red A), INS 124						
The eWG recommends that the 40 th CCFA <u>discuss further</u> the following food additive provisions for ponceau 4R in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
16.0	Composite foods - foods that could not be placed in categories 01 - 15	500	mg/kg		6	1) Used for composite food; 2) maximum levels are justified to achieve the intended technological need 3) Suggestion that, If provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions)

ERYTHROSINE (INS 127)

10. The 28th CAC has adopted one provision in the GSFA for the use of erythrosine.

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

12. The 30th 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 53rd 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.

Recommendation 1 – Erythrosine, INS 127						
The eWG recommends that the 40 th CCFA <u>discontinue</u> 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
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 tubers, pulses and legumes)	300	mg/kg		6	
16.0	Composite foods - foods that could not be placed in categories 01 - 15	300	mg/kg	Note 2	6	In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions) If provisions were proposed for category 16, the products would need to be fully defined and the additive uses restricted to these products.

Recommendation 2 - Erythrosine, INS 127						
The eWG recommends that the 40 th CCFA <u>adopt</u> 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	1) Used as a color for e.g. strawberry flavor of red color flavored milk beverages. 2) Level of use will provide the intensity of colour required for the product.
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.

Recommendation 2 - Erythrosine, INS 127						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
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	Note 54	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	
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	1) Candies are colored and sold in great number. Candies, nougats. 2) Erythrosine is used in hard candy as a colour retention agent to stabilize and fix the red colour. 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.
05.3	Chewing gum	100	mg/kg		6	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

Recommendation 2 - Erythrosine, INS 127						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						<p>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 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>
05.4	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	300	mg/kg		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.

Recommendation 2 - Erythrosine, INS 127						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for erythrosine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
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	<p>1) Potentially used in e.g., colored tablets.</p> <p>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.</p> <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.</p> <p>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 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>
14.1.4	Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks	300	mg/kg		6	<p>1) Potentially colored for e.g., high-calorie energy drinks.</p> <p>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).</p> <p>3) These drinks are designed for use by individuals who are in a specific physiological condition, due to the expenditure of intense muscular effort.</p> <p>4) Use is severely limited by many countries due to low ADI; some beverage (energy and sports drinks) manufacturers may use it where it is legally permitted; this use isn't known to be common.</p>

Recommendation 3 - Erythrosine, INS 127

The eWG recommends that the 40th CCFA **discuss further** the following food additive provisions for erythrosine in the GSFA.

Food Cat No.	Food Category	Max Level	Comments	Step	Justification provided to eWG
04.1.2.5	Jams, jellies and marmelades	400 mg/kg		6	The maximum level in Category 04.1.2.5, Jams, jellies and marmelades not only exceeds the maximum level of 300 mg/kg, set forth in all other categories but is also twice as high as the maximum level for this colour allowed by the standard for Jams and Jellies, Stan 79-1981, that is, 200 mg/kg, singly or in combination with several other colours.

ALLURA RED AC (INS 129)

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

Recommendation 1 - Allura Red AC, INS 129

The eWG recommends that the 40th CCFA **include at Step 3** the following food additive provisions for allura red AC, in the GSFA.

Food Cat No.	Food Category	Max Level	Comments	Justification provided to eWG
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	100 mg/kg		1) Used to color coffee-like drinks; the draft and proposed draft maximum levels are enough to achieve the intended technological need. 2) Unable to confirm the use in this food category in industry; suggestion to delete entry.

Recommendation 2 – Allura Red AC, INS 129

The eWG recommends that the 40th CCFA **discontinue** 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	

Recommendation 3 - Allura Red AC, INS 129

The eWG recommends that the 40th CCFA **adopt** 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	3	1) Reported use to color surface of cheese; 2) No technological need identified for the cheese itself, only used on rind. 3) CX STAN 221 (Unripened Cheese) allows the use of other colors 4) Draft and proposed draft maximum levels are enough to achieve the intended technological need
01.6.2.2	Rind of ripened cheese	100 mg/kg		6	
01.6.4	Processed cheese	200 mg/kg		6	
01.6.5	Cheese analogues	300 mg/kg	Note 3	3	1) Reported use for similar products of cheese: used to color surface. 2) No technological need identified for the cheese itself, only used on rind. 3) Draft and proposed draft maximum levels are enough to achieve the intended technological need

Recommendation 3 - Allura Red AC, INS 129						
The eWG recommends that the 40 th CCFA adopt 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
01.7	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	300	mg/kg		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
04.1.2.11	Fruit fillings for pastries	300	mg/kg		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	300	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	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	

Recommendation 3 - Allura Red AC, INS 129						
The eWG recommends that the 40 th CCFA adopt 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
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	<p>Technological need/level justification 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 dark chocolate brown colour imparted by natural gum base or the whiteness of the gum sweeteners such as sucrose or sorbitol.</p> <p>Safety The consumption of 3g of chewing gum⁸ containing 300 mg/kg of Allura Red by a 60 kg adult would result in the ingestion of 0.9 mg of colour or about 0.22% 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.</p>
05.4	Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	300	mg/kg		6	
06.2	Flours and starches (including soybean powder)	300	mg/kg		6	Potentially used for starches
06.3	Breakfast cereals, including rolled oats	300	mg/kg		6	Food category in which the use of one or more colors is justified
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	Fine bakery wares (sweet, salty, savoury) and mixes	300	mg/kg			Adopt in broader category 07.2. Consequential effect is to discontinue provision in subcategories 07.2.1, 07.2.2, and 07.2.3
07.2.1	Cakes, cookies and pies (e.g., fruit-filled or custard types)	300	mg/kg		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	Revise to single provision in broader food category (07.2). To provide colour (other colours are permitted)
07.2.3	Mixes for fine bakery wares (e.g., cakes, pancakes)	300	mg/kg		6	

⁸ 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 18th 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.

Recommendation 3 - Allura Red AC, INS 129						
The eWG recommends that the 40 th CCFA adopt 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
08.3.2	Heat-treated processed comminuted meat, poultry, and game products	25	mg/kg		6	1) Used for heat processed meat. 2) To improve organoleptic properties of extended meat products 3) Draft and proposed draft maximum levels are enough to achieve the intended technological need
08.4	Edible casings (e.g., sausage casings)	300	mg/kg	Note 16	6	
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 95	6	
09.2.4.1	Cooked fish and fish products	300	mg/kg		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	300	mg/kg	Note 22	6	
09.3.3	Salmon substitutes, caviar, and other fish roe products	300	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	300	mg/kg		6	
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	300	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	300	mg/kg		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

Recommendation 3 - Allura Red AC, INS 129						
The eWG recommends that the 40 th CCFA adopt 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
						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	300	mg/kg	Note 127		Proposed new use in broader food category Adopt in broader category 014.1.4 with Note 127.
14.1.4.1	Carbonated water-based flavoured drinks	300	mg/kg		6	Consequential effect is to discontinue provision in subcategories 14.1.4.1, 14.1.4.2, and 14.1.4.3
14.1.4.2	Non-carbonated water-based flavoured drinks, including punches and ades	300	mg/kg		6	Revise to one provision in 14.1.4 with note 127
14.1.4.3	Concentrates (liquid or solid) for water-based flavoured drinks	1572	mg/kg		6	1) Use of the colour is technologically justified as a colouring agent 2) Propose an increased maximum level of 300 mg/kg in 14.1.4 due to additional information received on current use levels in the following countries: Canada, USA, and Mexico. While a large number of products globally are within 100 mg/kg, we have found several products that exceed this limit. The higher use level than 100 mg/kg is needed in beverage mixers, semi-frozen drinks, and certain flavored drinks (e.g., tropical fruit punches, cherry, strawberry, and cranberry flavored drinks) for which consumers expect/prefer a more intense color. Revise to single provision in broader food category (14.1.4).
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 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	
16.0	Composite foods - foods that could not be placed in categories 01 - 15	300	mg/kg		6	Potentially used for complex foods

INDIGOTINE (INDIGO CARMINE) (INS 132)

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

Recommendation 1 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for indigotine, in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Justification provided to eWG	
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	100	mg/kg			

Recommendation 2 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA discontinue 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	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.
06.3	Breakfast cereals, including rolled oats	300	mg/kg		6	Because these foods are consumed by children and the ADI is low.
12.2.1	Herbs and spices	300	mg/kg		6	

Recommendation 3 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA adopt 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	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	
03.0	Edible ices, including sherbet and sorbet	150	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	150	mg/kg		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	150	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	150	mg/kg		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	Note 92	6	

Recommendation 3 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
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	
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	<p>Technical need/level justification</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 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.</p>

Recommendation 3 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						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. Safety The JECFA ADI value for indigotine is 0-5 mg/kg body weight. Consumption of a 3g chewing gum ¹ 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.
05.4	Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces	300	mg/kg		6	
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	150	mg/kg		6	
07.0	Bakery wares	300	mg/kg		6	Adopt in subcategory 07.2 only. Consequential effect is to discontinue provision in broader food category 07.0 Revise to subcategory 07.2, only.
07.2	Fine bakery wares (sweet, salty, savoury) and mixes	200	mg/kg			
09.1.1	Fresh fish	300	mg/kg	Notes 4, 16, & 50	6	
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 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	Note 16	6	
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg	Note 22	6	
09.3.3	Salmon substitutes, caviar, and other fish roe products	300	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	300	mg/kg		6	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	300	mg/kg		6	
10.1	Fresh eggs	300	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	1) Used for topping syrups; maximum level is enough to achieve the technological need 2) There is a technological need for decorating bakery products (e.g., coloured sugar crystals for cookies). 3) Provisions for other colours, as allura red, canthaxanthin

Recommendation 3 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						and caramel class III, are being adopted.
11.6	Table-top sweeteners, including those containing high-intensity sweeteners	300	mg/kg		6	1) Used for table top sweeteners 2)maximum level is enough to achieve the technological need
12.2.2	Seasonings and condiments	300	mg/kg		6	
12.4	Mustards	300	mg/kg		6	
12.5	Soups and broths	50	mg/kg		6	
12.6	Sauces and like products	300	mg/kg		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 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	

Recommendation 4 – Indigotine (Indigo Carmine), INS 132						
The eWG recommends that the 40 th CCFA <u>further discuss</u> the following food additive provisions for indigotine in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
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
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	1) Used for liquid sugar syrups; maximum level is enough to achieve the technological need 2) The food category 11.3 covers sugar solutions, invert sugar solutions and invert sugar syrups as defined in the EU “Sugars Directive”. There is neither a technological need for colouring these sugars nor permission for the use of colours by EU legislation. In addition, such mixed products are already covered by GSFA food category 11.4 (<i>other sugars and syrups - e.g. xylose, maple syrup, sugar toppings -</i>), which includes all types of table syrups, syrups for fine bakery wares and edible ices (e.g. caramel syrup, flavoured syrups), and decorative sugar toppings (e.g. <u>coloured</u> sugar crystals for cookies) [see GSFA food category descriptors.]

BRILLIANT BLUE FCF (INS 133)

15. The 28th CAC has adopted several provisions in the GSFA for the use of brilliant blue FCF.

16. The 13th JECFA (1969) assigned an ADI of 12.5 mg/kg bw/d for brilliant blue FCF.

Recommendation 1 – Brilliant Blue FCF, INS 133						
The eWG recommends that the 40 th CCFA <u>discontinue</u> 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	6	

Recommendation 2 - Brilliant Blue FCF, INS 133						
The eWG recommends that the 40 th 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
01.6.5	Cheese analogues	100	mg/kg	Note 3	3	
04.1.2.4	Canned or bottled (pasteurized) fruit	200	mg/kg		6	1) CX standards subject to this food category allow for the use of other colors 2) Use as green color 3) Maximum levels achieve the intended technological need
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	
04.2.2.3	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	1) The draft Codex Standard for pickled fruits allows for the use of other colors 2) Used to color pickles 3) Maximum levels achieve the intended technological need
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. 3) Used as green color; 4) Maximum levels achieve the

Recommendation 2 - Brilliant Blue FCF, INS 133						
The eWG recommends that the 40 th 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
						intended technological need
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	3	
05.1.3	Cocoa-based spreads, including fillings	100	mg/kg		6	1) Used for fillings; baked goods, candy, and confections; cocoa-based spreads and fillings, particularly those that may have a fruit base or fruit component. 3) Maximum levels achieve the intended technological need) 4) Reviewed by JECFA –safe for intended uses; typical consumption below ADI of 12.5 mg/kg bw/d);
05.1.4	Cocoa and chocolate products	100	mg/kg		6	1)Used for chocolate products; chocolate products in this category that do not adhere to STAN 87; and coatings of chocolate products and in fillings in filled chocolate bars and truffles; all candies in 5.2 would fall into category 5.1.4 when covered in chocolate; examples chocolate covered mints, gummy bears, marzipan, nougat, etc. 2) Therefore same use level should be permitted for candies under 5.1.4 3) Maximum levels achieve the intended technological need
05.1.5	Imitation chocolate, chocolate substitute products	100	mg/kg		6	
07.1	Bread and ordinary bakery wares	100	mg/kg		6	1) Basic foods with wide consumption which could increase significantly the intake of this colour 2) Used for bread 3) Maximum levels achieve the intended technological need
07.2	Fine bakery wares (sweet, salty, savoury) and mixes	200	mg/kg		6	Food category in which the use of one or more colors is justified
08.0	Meat and meat products, including poultry and game	100	mg/kg	Notes 4 & 16	6	
09.2.4.1	Cooked fish and fish products	100	mg/kg	Note 95	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	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	

Recommendation 3 – Brilliant Blue FCF, INS 133						
The eWG recommends that the 40 th CCFA discuss further 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	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 3) Reported use of 0.1 mg/kg in feta cheese in Canada 4) Used to color the surface 5) Maximum levels achieve the intended technological need
04.1.2.5	Jams, jellies and marmelades	500	mg/kg		6	1) CX STANs 79 and 80 allow for the use of other colours 2) Draft CX STAN has ML of 100 mg/kg 3) Used to color jams, jellies and marmalades 4) Maximum levels achieve the intended technological need
16.0	Composite foods - foods that could not be placed in categories 01 - 15	100	mg/kg	Note 2	6	Justification should be provided why the carry over wouldn't be sufficient 1) Used to color bean-paste; maximum levels achieve the intended technological need) 2) If provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions)

CHLOROPHYLLS, COPPER (INS 141(i) & 141(ii))

17. The 28th CAC has adopted several provisions in the GSFA for the use of chlorophylls, copper.

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

Recommendation 1 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA include at Step 3 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
15.3	Snacks –fish based	350	mg/kg			Proposed new use. This level is needed to achieve the colour. Colour supports the various flavour and types of products 1) Usage standard is set as for Japan. 0.010g/kg as for copper. 2) Usage standard for chocolate (per 1kg as a copper) is, under 0.0010kg for copper chlorophyll, under 0.0064kg for sodium copper chlorophyllin) 3) Suggestion for max level of 350 mg/kg of colour pigment, which is needed to achieve the colour. Colour supports the various flavour and types of products

Recommendation 2 – Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
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

Recommendation 2 – Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
02.2.2	Emulsions containing less than 80% fat		GMP		6	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		GMP		6	Use could mislead the consumer
04.1.1.2	Surface-treated fresh fruit		GMP	Note 16	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	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.
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95	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	

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for copper chlorophylls 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	3	100 mg/kg is necessary to achieve coloring effect
01.6.1	Unripened cheese	50	mg/kg		3	For consistency with CX STAN 221
01.6.2.1	Ripened cheese, includes rind	50	mg/kg		3	Adopt provision for 01.6.2.1 with an ML of 15 mg/kg at Step 6 Consequential effect is to discontinue provision 01.6.2.1 with an ML of 50 mg/kg at Step 3 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
01.6.2.1	Ripened cheese, includes rind	15	mg/kg		6	

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						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	
01.6.4	Processed cheese	50	mg/kg		3	Adopt in subcategory 01.6.4.2 only.
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	50	mg/kg			Consequential effect is to discontinue provision in broader food category 01.6.4 Revise to food subcategory 01.6.4.2, only
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	Adopt maximum level of 200 mg/kg.
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	500	mg/kg		3	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	Adopt maximum level of 500 mg/kg
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7		GMP		6	
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
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	6	1) To provide colour (other colours are permitted) 2) To improve organoleptic properties of food
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

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						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
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
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	Technological need/level justification Copper complexes of Chlorophylls and Chlorophyllins (E141) are used as colours in pellet gum

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						and slab gum. 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. Safety JECFA assigned an ADI of 15 mg/kg body weight for chlorophylls, copper complexes. Consumption of a 3g piece ⁹ 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.
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	Adopt maximum level of 100 mg/kg, for consistency with the Codex Standard for Instant Noodles
06.4.3	Pre-cooked pastas and noodles and like products		GMP		6	
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	6.4	mg/kg	Note 62	6	Adopt maximum level of 75 mg/kg
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	75	mg/kg		3	
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) Usage standard is set as for Japan. 0.010g/kg as for copper. Usage standard for chocolate (per 1kg as a copper) is, under 0.0010kg for copper chlorophyll, under 0.0064kg for sodium copper chlorophyllin 3) Suggestion: 75 mg/kg expressed as pigment is required to identify flavour
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	Note 95	3	
09.2.4.1	Cooked fish and fish products	30	mg/kg	Note 62 & 95	6	

⁹ 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 18th 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.

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	40	mg/kg	Note 62 & 95	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	Note 16	3	
09.3.2	Fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine	40	mg/kg	Note 16	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	Note 95	3	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 95	6	
10.4	Egg-based desserts (e.g., custard)	300	mg/kg	Note 2	3	
12.2.2	Seasonings and condiments	500	mg/kg		3	
12.4	Mustards	500	mg/kg		6	
12.5	Soups and broths	400	mg/kg	Note 127	6	For consistency with commodity standard for soups and broths Adopt in broader category 12.5 Consequential effect is to discontinue provisions in subcategories 12.5.1 and 12.5.2
12.5.1	Ready-to-eat soups and broths, including canned, bottled, and frozen	400	mg/kg		6	
12.5.2	Mixes for soups and broths	100	mg/kg		3	
12.6	Sauces and like products	100	mg/kg		3	
13.6	Food supplements	500	mg/kg	Note 3	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. 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. 3) Copper complexes of

Recommendation 3 - Chlorophylls, Copper INS 141(i), 141(ii)						
The eWG recommends that the 40 th CCFA <u>adopt</u> the following food additive provisions for copper chlorophylls in the GSFA.						
Food Cat No.	Food Category	Max	Level	Comments	Step	Justification provided to eWG
						<p>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. 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 drinks	300	mg/kg		6	
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	

FAST GREEN FCF (INS 143)

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

Recommendation 1 – Fast Green FCF, INS 143						
The eWG recommends that the 40 th CCFA discontinue 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
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	

Recommendation 2 - Fast Green FCF, INS 143						
The eWG recommends that the 40 th CCFA adopt 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	
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	100	mg/kg		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	100	mg/kg		6	Revise maximum level to 300 mg/kg.
06.4.3	Pre-cooked pastas and noodles and like products	300	mg/kg		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	Adopt in broader category 07.0.
07.1.1	Breads and rolls	100	mg/kg		Adopted	Consequential effect is to revoke provisions in sub categories 07.1.1 and 07.2
07.2	Fine bakery wares (sweet, salty, savoury) and mixes	100	mg/kg		Adopted	Revise to single maximum level in food category 07.0
08.1	Fresh meat, poultry, and game	100	mg/kg	Notes 3, 4, & 16	3	
08.2	Processed meat, poultry, and game products in whole pieces or cuts	100	mg/kg	Notes 3 & 4	3	
08.4	Edible casings (e.g., sausage casings)	100	mg/kg	Notes 3 & 4	3	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 95	6	
10.4	Egg-based desserts (e.g., custard)	100	mg/kg		6	
12.2.2	Seasonings and condiments	100	mg/kg		6	

Recommendation 2 - Fast Green FCF, INS 143						
The eWG recommends that the 40 th CCFA adopt 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
12.6.1	Emulsified sauces (e.g., mayonnaise, salad dressing)	100	mg/kg		6	
13.6	Food supplements	600	mg/kg		6	Fast Green FCF (INS 143) 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.

CARAMEL III – AMMONIA PROCESS (INS 150(c))

20. The 29th JECFA (1985) assigned an ADI of 200 mg/kg bw/d for caramel III – ammonia process.

Recommendation 1 – Caramel III, - Ammonia Process INS 150(c)						
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for caramel III-ammonia process 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	
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	3	See recommendation 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

Recommendation 2 - Caramel III – Ammonia Process, INS 150(c)					
The eWG recommends that the 40 th CCFA revoke the following adopted food additive provisions for caramel III – ammonia process in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification provided to eWG
01.2.1	Fermented milks (plain)	150	mg/kg	Note 12	
01.2.2	Renneted milk (plain)		GMP		

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process 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	3	Adopt revised provision 01.1.2 Consequential effect is to revoke adopted provision 01.1.2 Provides numeric ML to replace adopted 150 mg/kg limit Revision: provides numeric ML to replace adopted GMP limit in these categories.
01.3.2	Beverage whiteners	1000	mg/kg		3	Adopt revised provision 01.3.2 Consequential effect is to revoke adopted provision 01.3.2 Revision: provides numeric ML to replace adopted GMP limit.
01.4.3	Clotted cream (plain)	5000	mg/kg		3	Adopt revised provision 01.4.3 Consequential effect is to revoke adopted provision 01.4.3 Revision: provides numeric ML to replace adopted GMP limit.
01.4.4	Cream analogues	5000	mg/kg		3	Adopt revised provision 01.4.4 Consequential effect is to revoke adopted provision 01.4.4 1) Revision: Provides numeric ML to replace adopted GMP. 2)Used to color cream-like products 3) Maximum levels are enough to achieve the intended technological need
01.5.2	Milk and cream powder analogues	5000	mg/kg		3	Adopt revised provision 01.5.2 Consequential effect is to revoke adopted provision 01.5.2 Revision: Provides numeric ML to replace adopted GMP limit.
01.6.1	Unripened cheese	50000	mg/kg		3	Adopt revised provision 01.6.1 Consequential effect is to revoke adopted provision 01.6.1 1) Revision: Provides numeric ML to replace adopted GMP limit. 2) 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 3) Used for unripened cheese; 4) 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	Adopt revised provision 01.6.2
01.6.2.2	Rind of ripened cheese		GMP		Adopted	Consequential effect is to revoke adopted provision in subcategory 01.6.2.2 Revision: Provides numeric

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						ML to replace adopted GMP limit. 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 provide a distinguishing colour to various speciality cheeses eg fruit cheese
01.6.4	Processed cheese	50000	mg/kg		3	Adopt revised provision 01.6.4 Consequential effect is to revoke adopted provision 01.6.4 1)) Provides numeric ML to replace adopted GMP limit 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 for the colour of cheese spreads; 4) 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	Adopt revised provision 01.6.5 Consequential effect is to revoke adopted provision 01.6.5 1) Provides numeric ML to replace adopted GMP limit 2) 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 3) Used for the color of 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	Adopt revised provision 01.7 Consequential effect is to revoke adopted provision 01.7 Provides numeric ML to replace adopted 2000 mg/kg limit
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 ¹⁰	Blends of butter and margarine	20000	mg/kg		3	Used to color chocolate margarine

¹⁰ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
02.2.2	Emulsions containing less than 80% fat	500	mg/kg		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	Adopt revised provision 02.4 Consequential effect is to revoke adopted provision 02.4 Provides numeric ML to replace adopted GMP limit.
03.0	Edible ices, including sherbet and sorbet	30000	mg/kg		3	Adopt revised provision 03.0 Consequential effect is to revoke adopted provision 03.0 Provides numeric ML to replace adopted GMP limit
04.1.2	Processed fruit	50000	mg/kg		3	Adopt in broader category 04.1.2 Consequential effect is to revoke provisions in subcategories 04.1.2.3, 04.1.2.4, 04.1.2.5, 04.1.2.6, 04.1.2.7, 04.1.2.8, 04.1.2.9, and 04.1.2.11. Revise to single maximum use level of 50,000 mg/kg in food category 04.1.2, only.
04.1.2.3	Fruit in vinegar, oil, or brine		GMP		Adopted	
04.1.2.4	Canned or bottled (pasteurized) fruit		GMP		Adopted	
04.1.2.5	Jams, jellies and marmelades		GMP		Adopted	
04.1.2.6	Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg		Adopted	
04.1.2.7	Candied fruit		GMP		Adopted	
04.1.2.8	Fruit preparations, including pulp, purees, fruit toppings and coconut milk	7500	mg/kg		Adopted	
04.1.2.9	Fruit-based desserts, including fruit-flavoured water-based desserts		GMP		Adopted	
04.1.2.11	Fruit fillings for pastries	7500	mg/kg		Adopted	
04.2.2	Processed vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	50000	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	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		Adopted	
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		Adopted	
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		Adopted	
04.2.2.6	Vegetable (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe		GMP		Adopted	

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	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		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	
05.1.2	Cocoa mixes (syrups)	50000	mg/kg		6	The technological need is questioned 1) Used to color cocoa mixes (syrups) ; use at 5000 mg/kg in come cocoas mixes (syrups) in US 2) Maximum level of 50000 mg/kg is enough to achieve the intended technological need 3) Level is consistent with proposed use levels in other food categories
05.1.4	cocoa and chocolate products	50000	mg/kg		6	1) Used to color cocoa and chocolate; 2) Maximum levels are enough to achieve the intended technological need) 3) Level consistent with proposed levels in other food categories; 4) Already approved for use in candies within category 5.2 (Hard and Soft Candy, Marzipan and Nougat) at GMP levels. The candies within 5.2 fall into category 5.1.4 when they are covered with chocolate. The use levels for categories 5.1.4 and 5.2 should be considered at the same time.
05.1.5	Imitation chocolate, chocolate substitute products	50000	mg/kg		6	1) Used to color cocoa and chocolate 2) To improve organoleptic properties of food
06.3	Breakfast cereals, including rolled oats	50000	mg/kg	Note AA	3	Adopt revised provision 06.3 with Note AA Consequential effect is to revoke adopted provision 06.3 Revise adopted provision at 6500 mg/kg
06.4.2	Dried pastas and noodles and like products	50000	mg/kg		3	1) Used t o 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 t o Color Chinese noodles 3)To improve organoleptic properties of food

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	50000	mg/kg		3	Adopt revised provision 06.5 Consequential effect is to revoke adopted provision 06.5 Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 07.2 Consequential effect is to revoke adopted provision 07.2 Provides numeric ML to replace adopted GMP limit
08.0	Meat and meat products, including poultry and game		GMP	Notes 3, 4, & 16		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	Notes 4 & 16	3	Adopt revised provision in broader category 09.1 Consequential effect is to revoke adopted provision 09.1
09.1.1	Fresh fish		GMP	Notes 3, 4, 16, & 50	6	Consequential effect is to discontinue provision in subcategory 09.1.1, Revise by listing maximum level of 30,000 mg/kg in food category 09.1 only. Provides numeric ML to replace adopted GMP limit
09.2	Processed fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg		3	Adopt revised provision in broader category 09.2 Consequential effect is to revoke adopted provision 09.2
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	Consequential effect is to discontinue provisions in subcategories 09.2.1, 09.2.4.1 and 09.2.5
09.2.4.1	Cooked fish and fish products		GMP	Note 50	6	Revise by listing maximum level of 30,000 mg/kg in food category 09.2 only.
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	Provides numeric ML to replace adopted GMP limits Used to color minced fish and tukudani (fish boiled in soy sauce)
09.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg		3	Adopt in broader category 09.3
09.3.3	Salmon substitutes, caviar, and other fish roe products		GMP	Note 50	Adopted	Consequential effect is to revoke provision in subcategory 09.3.3 Provides numeric ML to replace adopted GMP limits Revise by listing maximum level of 30,000 mg/kg in food category 09.3 only.

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						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	Note 95	3	Adopt revised provision 09.4 Consequential effect is to revoke adopted provision 09.4 1) Revision of adopted provision 2) Used for color pressure and heat treated products e.g. canned foods
10.1	Fresh eggs	20000	mg/kg	Note 4	3	Adopt revised provision 10.1 Consequential effect is to revoke adopted provision 10.1 Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 10.4 Consequential effect is to revoke adopted provision 10.4 Provides numeric ML to replace adopted GMP limit
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.
12.2	Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	100000	mg/kg		3	Adopt revised provision in category 12.2.2 only Consequential effect is to revoke adopted provision 12.2.2
12.2.2	Seasonings and condiments	50000	mg/kg			Consequential effect is to discontinue provision in broader food category 12.2 1) Provides numeric ML to replace adopted GMP limits 2) Used for coloring of the seasoning for instant noodles. 3) To improve organoleptic properties of food
12.3	Vinegars	100000	mg/kg		3	Adopt revised provision 12.3 Consequential effect is to revoke adopted provision 12.3 Revision of adopted provision at 1000 mg/kg
12.4	Mustards	100000	mg/kg			Adopt revised provision 12.4 Consequential effect is to revoke adopted provision 12.4 Provides numeric ML to replace adopted GMP limit
12.5	Soups and broths	100000	mg/kg		3	Adopt revised provision 12.5 Consequential effect is to revoke adopted provision 12.5 Provides numeric ML to replace adopted GMP limit
12.6	Sauces and like products	100000	mg/kg		3	Adopt revised provision 12.6 Consequential effect is to revoke adopted provision 12.6 Revision of adopted provision

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						at 1500 mg/kg
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	Adopt revised provision 12.7 Consequential effect is to revoke adopted provision 12.7 Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 12.9.5 Consequential effect is to revoke adopted provision 12.9.5 Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 13.3 Consequential effect is to revoke adopted provision 13.3 Provides numeric ML to replace adopted GMP limit
13.4	Dietetic formulae for slimming purposes and weight reduction	20000	mg/kg		3	Adopt revised provision 13.4 Consequential effect is to revoke adopted provision 13.4 Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 13.5 Consequential effect is to revoke adopted provision 13.5 Provides numeric ML to replace adopted GMP limit
13.6	Food supplements	20000	mg/kg		3	Adopt revised provision 13.6 Consequential effect is to revoke adopted provision 13.6 1) Provides numeric ML to replace adopted GMP limit 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. 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. 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. 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

Recommendation 3 - Caramel III – Ammonia Process, INS 150(c)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						within a maximum level of 20000mg / kg.
14.1.3.2	Vegetable nectar	50000	mg/kg		3	Adopt revised provision 14.1.3.2 Consequential effect is to revoke adopted provision 14.1.3.2 Provides numeric ML to replace adopted GMP limit
14.1.3.4	Concentrates for vegetable nectar	50000	mg/kg	Note 127	3	Adopt revised provision 14.1.3.4 Consequential effect is to revoke adopted provision 14.1.3.4 Provides numeric ML to replace adopted GMP limit
14.1.4	Water-based flavoured drinks, including "sport," "energy" or "electrolyte" drinks and particulated drinks	50000	mg/kg		3	Adopt revised provision 14.1.4 Consequential effect is to revoke adopted provision 14.1.4 1) Provides numeric ML to replace adopted GMP limit 2) The use levels according to GMP should be acceptable due to the high ADI and suggests reconsidering the proposed revocation
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	100000	mg/kg		3	1) Must not be added to coffee, coffee substitutes, tea, herbal infusions and similar products 2) Used to color coffee drinks 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.
15.0	Ready-to-eat savouries	10000	mg/kg		3	Provides numeric ML to replace adopted GMP limit in this category.

Recommendation 4 - Caramel III – Ammonia Process, INS 150c						
The eWG recommends that the 40 th CCFA further discuss the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.0	Confectionery	50000	mg/kg		3	Recommendation for broader food category 5.0 will have consequential effects on adopted provisions in subcategories 05.1.3, 05.2, 05.3, and 05.4 1) There are no non-standardized foods in subcategory 05.1.1 2) The relevant commodity standards (CX STAN 105 (Codex Standards for Cocoa powders and dry mixtures of cocoa and sugar) & CX STAN 141 (Codex Standard for cocoa mass (cocoa/chocolate liquor) and cocoa cake)) do not contain any provisions for the use of
05.1.3	Cocoa-based spreads, including fillings		GMP		Adopted	
05.2	Confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4		GMP		Adopted	
05.3	Chewing gum	20000	mg/kg		Adopted	
05.4	Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces		GMP		Adopted	

Recommendation 4 - Caramel III – Ammonia Process, INS 150c						
The eWG recommends that the 40 th CCFA <u>further discuss</u> the following food additive provisions for caramel III – ammonia process in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>colors.</p> <p>3) Used to color rice biscuits and biscuits.</p> <p>4) To provide colour (other colours are permitted)</p> <p>5) To improve organoleptic properties of food</p> <p>6) 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.</p> <p>See recommendation for food category 05.0; revise accordingly</p>
14.2	Alcoholic beverages, including alcohol-free and low-alcoholic counterparts	50000	mg/kg		3	<p>Recommendation for broader food category 14.2 will have consequential effects on adopted provisions in subcategories 14.2.1, 14.2.3.3, 14.2.6, and 14.2.7</p> <p>Recommendation for broader food category 14.2 will have consequential effects on provisions in subcategories 14.2.2, 14.2.4, and 14.2.5</p> <p>1) Technological need in 14.2 is questioned, as this use could mislead the consumer</p> <p>2) Current use in distilled spirits and other alcoholic beverages to prevent batch to batch variation in color and flavor profile of beverages (ex. 14.2.1) in clear glass bottles</p>
14.2.1	Beer and malt beverages		GMP		Adopted	
14.2.2	Cider and perry	1000	mg/kg			
14.2.3.3	Fortified grape wine, grape liquor wine, and sweet grape wine		GMP		Adopted	
14.2.4	Wines (other than grape)	1000	mg/kg			
14.2.5	Mead	1000	mg/kg		6	
14.2.6	Distilled spirituous beverages containing more than 15% alcohol		GMP		Adopted	
14.2.7	Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low-alcoholic refreshers)		GMP		Adopted	
16.0	Composite foods - foods that could not be placed in categories 01 - 15	20000	mg/kg		3	<p>Recommendation for revised food category 16.0 will have consequential effects on adopted provision for food category 16.0, currently adopted at ML of 1000 mg/kg.</p> <p>1) Technological need is questioned. Justification should be provided why the carry over wouldn't be sufficient.</p> <p>2) Used to color bean-paste.</p> <p>3) To improve organoleptic properties of food.</p> <p>4) maximum levels are enough to achieve the intended technological need)</p> <p>5) If provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions)</p>

CARAMEL IV – SULPHITE AMMONIA PROCESS (INS 150(d))

21. The 29th JECFA (1985) assigned an ADI of 200 mg/kg bw/d for caramel IV – sulphite ammonia process.

Recommendation 1 – Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for caramel IV – sulphite ammonia process 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
01.8.1	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 based on fat emulsions	20000	mg/kg		3	Technological need is questioned, as this use could mislead the consumer
05.1.1	Cocoa mixes (powders) and cocoa mass/cake		GMP		6	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
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	
14.2	Alcoholic beverages, including alcohol-free and low-alcoholic counterparts	50000	mg/kg		3	1) Currently used in distilled spirits and other alcoholic beverages 2) Prevents batch variation in color 3) Protects flavor profile (e.g. 14.2.1) of beverages in clear glass.

Recommendation 2 - Caramel IV – Ammonia Sulphite Process, INS 150(d)					
The eWG recommends that the 40 th CCFA revoke the following adopted food additive provisions for caramel IV – sulphite ammonia process. in the GSFA. in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	
01.4.3	Clotted cream (plain)		GMP		Foods covered by this category would not be expected to contain added colors
09.1	Fresh fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Notes 3 & 50	

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. 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	3	Adopt revised provision 01.1.2 Consequential effect is to revoke adopted provision 01.1.2 Revision of adopted provision at 150 mg/kg

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA <u>adopt</u> the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.3.2	Beverage whiteners	1000	mg/kg		3	Adopt revised provision 01.3.2 Consequential effect is to revoke adopted provision 01.3.2 Revision: Provides numeric ML to replace adopted GMP limit
01.4.4	cream analogues	5000	mg/kg		3	Adopt revised provision 01.4.4 Consequential effect is to revoke adopted provision 01.4.4 Revision: Provides numeric ML to replace adopted GMP limit
01.5.2	Milk and cream powder analogues	5000	mg/kg		3	Adopt revised provision 01.5.2 Consequential effect is to revoke adopted provision 01.5.2 Revision: Provides numeric ML to replace adopted GMP limit
01.6.1	Unripened cheese	50000	mg/kg		3	Adopt revised provision 01.6.1 Consequential effect is to revoke adopted provision 01.6.1 Revision: Provides numeric ML to replace adopted GMP limit 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 speciality cheeses eg fruit cheese
01.6.2	Ripened cheese	50000	mg/kg		3	Adopt in broader category 01.6.2
01.6.2.2	Rind of ripened cheese		GMP		Adopted	Consequential effect is to revoke adopted provision in subcategory 01.6.2.2 Revision: Provides numeric ML to replace adopted GMP limit 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 Revise to broader category: 01.6.2
01.6.4	Processed cheese	50000	mg/kg		3	Adopt in broader category 01.6.4
01.6.4.1	Plain processed cheese		GMP		6	Consequential effect is to revoke adopted provision 01.6.4
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.	100	mg/kg	Notes 5 & 72	6	Consequential effect is to discontinue provisions in subcategories 01.6.4.1 and 01.6.4.2 Revision: Provides numeric ML to replace adopted GMP limit 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 colored cheese spreads. 3) These colors may be used to provide a distinguishing colour to various speciality cheeses eg fruit cheese Revise to broader category: 01.6.4

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
01.6.5	Cheese analogues	50000	mg/kg		3	Adopt revised provision 01.6.5 Consequential effect is to revoke adopted provision 01.6.5 Revision: Provides numeric ML to replace adopted GMP limit 1) 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 2) Used to color imitation cheese. 3) These colors may be used to provide a distinguishing colour to various specialty cheeses eg fruit cheese
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	50000	mg/kg		3	Adopt revised provision 01.7 Consequential effect is to revoke adopted provision 01.7 Revision of adopted provision at 2000 mg/kg
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7	20000	mg/kg		3	Adopt revised provision 02.4 Consequential effect is to revoke adopted provision 02.4 Revision: Provides numeric ML to replace adopted GMP limit
03.0	Edible ices, including sherbet and sorbet	30000	mg/kg		3	Adopt revised provision 03.0 Consequential effect is to revoke adopted provision 03.0 Revision of adopted provision at 1000 mg/kg
04.1.2	Processed fruit	80000	mg/kg		3	Adopt in broader category 04.1.2 Consequential effect is to revoke adopted provisions in subcategories 04.1.2.3, 04.1.2.4, 04.1.2.5, 04.1.2.6, 04.1.2.7, 04.1.2.8, 04.1.2.9, and 04.1.2.11 1) Used to color processed fruit; 2) Maximum levels are enough to achieve the intended technological need 04.1.2.5 - STAN 79 limits caramel colours to 200 mg/kg singly or in combo
04.1.2.3	Fruit in vinegar, oil, or brine		GMP		Adopted	
04.1.2.4	Canned or bottled (pasteurized) fruit		GMP		Adopted	
04.1.2.5	Jams, jellies, marmelades	1500	mg/kg		Adopted	
04.1.2.6	Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5	500	mg/kg		Adopted	
04.1.2.7	Candied fruit		GMP		Adopted	
04.1.2.8	Fruit preparations, including pulp, purees, fruit toppings and coconut milk	7500	mg/kg		Adopted	
04.1.2.9	Fruit-based desserts, incl. fruit-flavoured water-based desserts		GMP		Adopted	
04.1.2.11	Fruit fillings for pastries	7500	mg/kg		Adopted	
04.2.2	Processed vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	50000	mg/kg	Note 92	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	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		Adopted	
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		Adopted	
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.,		GMP		Adopted	

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
	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		GMP		Adopted	
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	
05.1.2	Cocoa mixes (syrups)	50000	mg/kg		6	1) Used to color cocoa mixes (syrups); 2) Maximum levels are enough to achieve the intended technological need) 3) Consistent with proposed use levels in other food categories; current use level of 5000 mg/kg in some cocoa mixes (syrups) in the US.
05.1.3	Cocoa-based spreads, including fillings	50000	mg/kg			Adopt revised provision 05.1.3 Consequential effect is to revoke adopted provision 05.1.3 Revision: provides numeric ML to replace adopted GMP limit. 1)Used to color cocoa-based spreads; 2) Maximum levels are enough to achieve the intended technological need 3) consistent with proposed use levels in other food categories; current use level of 2000 to 5000 mg/kg in some fillings for chocolates in the US.
05.1.4	Cocoa and chocolate products	50000	mg/kg		6	Revision: provides numeric ML to replace GMP limit 1) Used to color cocoa, chocolates 2) To improve organoleptic properties of food 3) maximum levels are enough to achieve the intended technological need 4) Consistent with proposed levels in other food categories. 5) Caramel IV is approved for use in candies within Food Category 5.2 (Hard and Soft Candy, Marzipan and Nougat) at GMP levels. The candies within Category 5.2 fall into category 5.1.4 when they are covered with chocolate. Therefore the use levels for categories 5.1.4 and 5.2 should be considered at the same time. 6) Caramel IV use in candies including licorice can be 10,000 mg/kg

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.1.5	Imitation chocolate, chocolate substitute products	50000	mg/kg		6	Revision: provides numeric ML to replace GMP limit
06.3	Breakfast cereals, including rolled oats	50000	mg/kg	Note AA	3	Adopt revised provision 06.3 Consequential effect is to revoke adopted provision 06.3 Revision of adopted provision at 2500 mg/kg
06.4.2	Dried pastas and noodles and like products	50000	mg/kg		3	1) Consistency with the adoption of caramel class III for the same food category 2) Used to color Chinese noodle 3) maximum levels are enough to achieve the intended technological need
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	Adopt revised provision 06.5 Consequential effect is to revoke adopted provision 06.5 Revision: Provides numeric ML to replace adopted GMP limit
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	1) Consistency with the adoption of caramel class III for the same food category 2) Used to color crackers 3) Maximum levels are enough to achieve the intended technological need
07.1.3	Other ordinary bakery products (e.g., bagels, pita, English muffins)	50000	mg/kg		3	To improve organoleptic properties of food
07.1.4	Bread-type products, including bread stuffing and bread crumbs	50000	mg/kg		3	1) Consistency with the adoption of caramel class III for the same food category 2) Used to color croutons 3) Maximum levels are enough to achieve the intended technological need
07.1.5	Steamed breads and buns	50000	mg/kg		3	Consistency with the adoption of caramel class III for the same food category
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	Adopt revised provision 07.2 Consequential effect is to discontinue provision in subcategory 07.2.2
07.2.1	Cakes, cookies and pies (e.g., fruit-filled or custard types)		GMP		Adopted	Consequential effect is to revoke adopted provisions 07.2.1 and 07.2.3
07.2.2	Other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)	1200	mg/kg		Adopted	Revise to broader category: 07.2 with a maximum level of 50000 mg/kg
07.2.3	Mixes for fine bakery wares (e.g., cakes, pancakes)		GMP		Adopted	
08.0	Meat and meat products, including poultry and game		GMP	Notes 3, 4, & 16	8	Revision of adopted provision 08.0 by adding notes 3, 4, and 16 Consequential effect is to discontinue provision 08.0 at Step 3 with a numerical ML
09.2	Processed fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	Note 95	3	Adopt revised provision 09.2 Consequential effect is to revoke adopted provision 09.2
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	Consequential effect is to discontinue provisions in subcategories 09.2.1, 09.2.4.1,

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
09.2.4.1	Cooked fish and fish products		GMP	Note 50	6	
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 50	6	
09.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	Note 95	3	Adopt in broader category 09.3 Consequential effect is to revoke adopted provision in subcategory 09.3.3 Revise to broader category: 09.3
09.3.3	Salmon substitutes, caviar, and other fish roe products		GMP	Note 50	Adopted	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	30000	mg/kg	Note 95	3	Adopt revised provision 09.4 Consequential effect is to revoke adopted provision 09.4 Revision of adopted provision at 500 mg/kg with Note 50 1)Used for color pressure-heat-treated products e.g. canned foods 2) Consistency with the adoption of caramel class III for the same food category 3) Maximum levels are enough to achieve the intended technological need
10.1	Fresh eggs	20000	mg/kg	Note 4	3	Adopt revised provision 10.1 Consequential effect is to revoke adopted provision 10.1 Revision: Provides numeric ML to replace adopted GMP limit
10.2	Egg products	20000	mg/kg		3	1) Used to color egg soup and fried eggs 2) Maximum levels are enough to achieve the intended technological need
10.3	Dried and/or heat coagulated egg products	20000	mg/kg		3	1) Used to color pi dan (preserved duck eggs) 2) Maximum levels are enough to achieve the intended technological need
10.4	Egg-based desserts (e.g., custard)	20000	mg/kg		3	Adopt revised provision 10.4 Consequential effect is to revoke adopted provision 10.4 Revision: Provides numeric ML to replace adopted GMP limit
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	50000	mg/kg		3	1) Used to color toppings for cakes 2) Maximum levels are enough to achieve the intended technological need
12.2	Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	100000	mg/kg		3	Adopt in broader category 12.2 Consequential effect is to revoke adopted provision in subcategory 12.2.2 Revise to list maximum level of 100,000 mg/kg only in food subcategory 12.2
12.2.2	Seasonings and condiments		GMP		Adopted	
12.3	Vinegars	100000	mg/kg		3	Adopt revised provision 12.3 Consequential effect is to revoke adopted provision 12.3 Revision: Provides numeric ML to replace adopted GMP limit
12.4	Mustards	100000	mg/kg		3	Adopt revised provision 12.4 Consequential effect is to revoke adopted provision 12.4 Revision: Provides numeric ML to replace adopted GMP limit
12.5	Soups and broths	100000	mg/kg		3	Adopt in broader category 12.5 Consequential effect is to revoke adopted provisions in subcategories 12.5.1 and 12.5.2 Revise to broader category: 12.5
12.5.1	Ready-to-eat soups and broths, including canned, bottled, and frozen	3000	mg/kg		Adopted	
12.5.2	Mixes for soups and broths		GMP		Adopted	

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						at 100000 mg/kg
12.6	Sauces and like products	100000	mg/kg		3	Adopt revised provision 12.6 Consequential effect is to revoke adopted provision 12.6 Revision of adopted provision at 1500 mg/kg
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	Adopt revised provision 12.7 Consequential effect is to revoke adopted provision 12.7 Revision: Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 12.9.5 Consequential effect is to revoke adopted provision 12.9.5 Revision: Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 13.3 Consequential effect is to revoke adopted provision 13.3 Revision: Provides numeric ML to replace adopted GMP limit
13.4	Dietetic formulae for slimming purposes and weight reduction	20000	mg/kg		3	Adopt revised provision 13.4 Consequential effect is to revoke adopted provision 13.4 Revision: Provides numeric ML to replace adopted GMP limit
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	Adopt revised provision 13.5 Consequential effect is to revoke adopted provision 13.5 Revision: Provides numeric ML to replace adopted GMP limit
13.6	Food supplements	20000	mg/kg		3	Adopt revised provision 13.6 Consequential effect is to revoke adopted provision 13.6 Revision: Provides numeric ML to replace adopted GMP limit 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 give an opaque dark-brown colour. 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. 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. 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

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						maximum level of 20000mg / kg.
14.1.2.2	Vegetable juice	50000	mg/kg		3	1) Used to color vegetable juice 2) Maximum levels are enough to achieve the intended technological need
14.1.2.4	Concentrates for vegetable juice	50000	mg/kg		3	1) Used to color concentrates for vegetable juice 2) Maximum levels are enough to achieve the intended technological need
14.1.3.2	Vegetable nectar	50000	mg/kg		3	Adopt revised provision 14.1.3.2 Consequential effect is to revoke adopted provision 14.1.3.2 Revision: Provides numeric ML to replace adopted GMP limit 1) Used to color vegetable nectar 2) Maximum levels are enough to achieve the intended technological need
14.1.3.4	Concentrates for vegetable nectar	50000	mg/kg		3	Adopt revised provision 14.1.3.4 Consequential effect is to revoke adopted provision 14.1.3.4 Revision: Provides numeric ML to replace adopted GMP limit 1) Coloring for concentrates for vegetable nectar 2) Maximum levels are enough to achieve the intended technological need
14.1.4	Water-based flavoured drinks, including "sport," "energy" or "electrolyte" drinks and particulated drinks	50000	mg/kg		3	Adopt revised provision 14.1.4 Consequential effect is to revoke adopted provision 14.1.4 Revision: Provides numeric ML to replace adopted GMP limit
14.2.1	Beer and malt beverages	50,000	mg/kg			Adopt revised provision 14.2.1 Consequential effect is to revoke adopted provision 14.2.1 Revise adopted maximum level of GMP to 50,000 mg/kg
14.2.2	Cider and perry	1000	mg/kg			Adopt revised provision 14.2.2 Consequential effect is to revoke adopted provision 14.2.2 Revise adopted maximum level of GMP to 1000 mg/kg
14.2.3.3	Fortified grape wine, grape liquor wine, and sweet grape wine	50,000	mg/kg			Adopt revised provision 14.2..3.3 Consequential effect is to revoke adopted provision 14.2.3.3 Revise adopted maximum level of GMP to 50,000 mg/kg
14.2.4	Wines (other than grape)	1000	mg/kg			Adopt revised provision 14.2.4 Consequential effect is to revoke adopted provision 14.2.4 Revise adopted maximum level of GMP to 1000 mg/kg
14.2.5	Mead	1000	mg/kg		6	Revise GMP limit to 1000 mg/kg
14.2.6	Distilled spirituous beverages containing more than 15% alcohol	50,000	mg/kg			Adopt revised provision 14.2.6 Consequential effect is to revoke adopted provision 14.2.6 Revise adopted maximum level of GMP to 50,000 mg/kg
15.0	Ready-to-eat savouries	10,000	mg/kg		3	Adopt revised provision 15.0 Consequential effect is to revoke adopted provision 15.0 Revision: Provides numeric ML to replace adopted GMP limit
16.0	Composite foods - foods that could not be placed in categories 01 - 15	20000	mg/kg		3	Adopt revised provision 16.0 Consequential effect is to revoke adopted provision 16.0 Revision of adopted provision at 1000 mg/kg 1) Used to color bean-pastes

Recommendation 3 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for caramel IV – sulphite ammonia process in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						2) To improve organoleptic properties of food

Recommendation 4 - Caramel IV – Ammonia Sulphite Process, INS 150(d)						
The eWG recommends that the 40 th CCFA discuss further the following food additive provisions for caramel IV – sulphite ammonia process. in the GSFA. in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.0	Confectionery	50000	mg/kg		3	1) No non-standardized foods in sub-category 05.1.1 2) There are no provisions for colours in Codex Standards for Cocoa powders and dry mixtures of cocoa and sugar (Std. 105-1981, rev. 1-2001) or in the Codex Standard for cocoa mass (cocoa/chocolate liquor) and cocoa cake (Std. 141-1983, rev. 1-2001).
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. 3) there isn't a consumer expectation to have this product colored 4) there is a suggestion to add a subcategory for flavoured table-top sweeteners, which could be colored
14.1.5	Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	100000	mg/kg		3	1) Used to color coffee-like drinks 2) Maximum levels are enough to achieve the intended technological need 3) Suggestion that caramel IV should not be allowed in all foods in food category. Suggested Notes: - Note 142 and excluding herbal infusions - Excluding tea, coffee, and coffee substitutes - Note 160

CAROTENOIDS ((INS 160a(i), 160a(iii), 160e, 160f)

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

Recommendation 1 – Carotenoids, INS 160a(i), 160a(iii), 160e, 160f					
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for carotenoids in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification
08.4	Edible casings (e.g., sausage casings)	100	mg/kg	Note CC	1) Used to color casings; maximum levels are enough to achieve the intended technological need. 2) Colour for giving pleasant palatable appearance. 3) For use in glaze, coatings or decorations for fruit, vegetables, meat or fish (Note 16). 4) 100 mg/kg as beta-carotene is needed to achieve the colour
09.1.2	Fresh mollusks, crustaceans and echinoderms	100	mg/kg	Notes 4, 16 & CC	1) Coloration purpose. 2) Already adopted provisions for colours in the GSFA 3) Support for 100 mg/kg as beta-carotene
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg		The eWG recommends adoption of a maximum level of 100 mg/kg in food category 09.2 with Notes 95 and CC.
11.3	Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding	50	mg/kg		1) Used for liquid sugar syrups; maximum levels are enough to achieve the intended technological need. 2) Used to color the toppings for cakes 3) supports max use of 50 mg/kg as beta-carotene

Recommendation 1 – Carotenoids, INS 160a(i), 160a(iii), 160e, 160f					
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for carotenoids in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification
	products of food category 11.1.3				3) 11.3 covers sugar solutions, invert sugar solutions and invert sugar syrups as defined in the EU “Sugars Directive”. There is neither a technological need for colouring these sugars nor permission for the use of colours by EU legislation. 4) Such mixed products are already covered by GSFA food category 11.4 (<i>other sugars and syrups - e.g. xylose, maple syrup, sugar toppings -</i>), which includes all types of table syrups, syrups for fine bakery wares and edible ices (e.g. caramel syrup, flavoured syrups), and decorative sugar toppings (e.g. coloured as for 11.4) sugar crystals for cookies) [see GSFA food category descriptors.]
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	50	mg/kg	Note CC	1) Used for topping syrups; maximum levels are enough to achieve the intended technological need. 2) Used for coloring syrups. 3)supports max use of 50 mg/kg beta-carotene, same as for Carotenes vegetable which is already permitted 11.4
11.6	Table-top sweeteners, including those containing high-intensity sweeteners	300	mg/kg		1) Used table sweeteners; maximum levels are enough to achieve the intended technological need). 2) Appealing color to consumers when used in home cooking and baking
14.2.1	Beer and malt beverages	200	mg/kg	Note CC	1) To colour the alcoholic beverages. 2) Vegetable carotenes have adopted provision at 600 mg/kg in this category. 3) Support for max use of 200 mg/kg as beta-carotene

Recommendation 2 – Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA discontinue 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
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

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt 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	Note 52	6	
01.3.2	Beverage whiteners	100	mg/kg	Note CC	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

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						carotenes perform the same function and should be listed at the same level in the GSFA
01.4	Cream (plain) and the like	20	mg/kg	Note CC	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 standadize the colour.
01.5.2	Milk and cream powder analogues	100	mg/kg	Note CC	3	Colours are used to standadize the colour
01.6.1	Unripened cheese	100	mg/kg	Note CC	6	1) Colours are used to standadize 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	Note CC	6	Colours are used to standardize the colour
01.6.2.2	Rind of ripened cheese	500	mg/kg	Note CC	3	
01.6.2.3	Cheese powder (for reconstitution; e.g., for cheese sauces)	100	mg/kg	Note CC	3	Various cheeses are used as raw material to make powder, therefore same level of colour are present.
01.6.4	Processed cheese	100	mg/kg	Note CC	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	200	mg/kg	Note CC	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)	50	mg/kg	Note CC	6	
02.1.2	Vegetable oils and fats	250	mg/kg	Note CC	6	1) Used for vegetable oils and fats in Japan, Korea, Singapore, Malaysia and others. 2) ML expressed on beta-carotene level should be 250 mg/kg
02.1.3	Lard, tallow, fish oil, and other animal fats	250	mg/kg	Note CC	6	1) Used to color edible lard; maximum levels are enough to achieve the intended technological need. 2) Potentially by using the fat emulsion colour preparation. 3) CX Stan 19 contains

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						already provisions for colours and GSFA adopted provisions in this category. 4) Support for level of 250 mg/kg
02.2.1.2 ¹¹	margarine and similar products	1000	mg/kg		6	Adopt maximum level of 25 mg/kg with Note CC
02.2.1.2	margarine and similar products	25	mg/kg	Note CC	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 ¹²	Blends of butter and margarine	100	mg/kg	Note CC	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	25	mg/kg	Note CC	6	1) There is a technological need to coloring variety of products with flavors. 2) Used for emulsions 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. 4) To provide colour (other colours are permitted) 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

¹¹ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

¹² CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						oils) it makes sense to permit carotenoids at the same level as in butter and concentrated butter.
02.3	Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions	200	mg/kg	Note CC	6	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. 2) Used for fat emulsions. 3) To provide colour (other colours are permitted) 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.
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7	150	mg/kg	Note CC	6	
03.0	Edible ices, including sherbet and sorbet	200	mg/kg	Note CC	6	
04.1.2.3	Fruit in vinegar, oil, or brine	1000	mg/kg		3	
04.1.2.4	Canned or bottled (pasteurized) fruit	200	mg/kg		6	1) Restoration of colour which was destroyed during production. 2) CX Stans 60, 61, 78, 99, 159, 242 contain provisions for colours that apply to this category
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	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	100	mg/kg	Note CC	6	
04.1.2.9	Fruit-based desserts, including fruit-flavoured water-based desserts	150	mg/kg		6	
04.1.2.10	Fermented fruit products	500	mg/kg		3	
04.1.2.11	Fruit fillings for pastries	100	mg/kg	Note CC	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	Notes 4 & 16	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	1000	mg/kg		3	1) Used to color sunflower seeds; maximum levels are enough to achieve the intended technological need. 2) Fruits and vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						3) Use in dried potato granules and flakes 4) CX Stan 79 and 80 contains provisions for colours and GSFA adopted provisions in this category
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	Note CC	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	50	mg/kg	Note CC	6	1) Used for rootstalks; maximum levels are enough to achieve the intended technological need. 2) Restoration of colour which was destroyed during production. 3) CX Stan 55, 58, 81 and 115 contains provisions for colours and GSFA has adopted provisions in this category. 4) To improve organoleptic properties of food.. 5) 50 mg/kg as beta-carotene is needed to achieve the colour
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	1) Used to color peanut butter; maximum levels are enough to achieve the intended technological need. 2) Restoration of colour which was destroyed during processing. 3) CX Stan 55, 58, 81 and 115 contains provisions for colours and GSFA has adopted provisions in this category. 4) Potentially used for e.g. vegetable purees. 5) To improve organoleptic properties of food. 6) 50 mg/kg as beta-carotene is needed to achieve the colour
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	Notes CC & 92	6	1) Used for sugared, vinegar-pickled vegetables; maximum levels are enough to achieve the intended technological need. 2) Restoration of colour which was destroyed during heat treatment. 3) CX Stan 55, 58, 81 and 115 contains provisions for colours and GSFA adopted provisions in this category. 4) Potentially used for e.g. vegetable purees. 5) To improve organoleptic properties of food 6) 50 mg/kg as beta-carotene is needed to achieve the colour
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	1) Used to color pickles; maximum levels are enough to achieve the intended technological need. 2) Restoration of colour which was destroyed during fermentation. 3) CX Stan 55, 58, 81 and 115 contains provisions for colours

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						and GSFA adopted provisions in this category. 4) Potentially used for e.g. fermented vegetable products. 5) To improve organoleptic properties of food. 6) 50 mg/kg as beta-carotene is needed to achieve the colour
05.1.2	Cocoa mixes (syrups)	100	mg/kg	Note CC	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	Note CC	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	Note CC	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	Note CC	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	Note CC	6	Colour supports the various flavour and types of products.
05.3	Chewing gum	100	mg/kg	Note CC	6	1) Technological need/level justification 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 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

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						<p>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>Safety 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 gum¹³ 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</p> <p>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	
07.1.1	Breads and rolls	35	mg/kg	Note CC	6	<p>1) Used to color bread; maximum levels are enough to achieve the intended technological need.</p> <p>2) Colour the speciality breads e.g. carrot containing bread.</p> <p>3) Already adopted provision for colour in this category in the GSFA.</p>
07.1.2	Crackers, excluding sweet crackers	1000	mg/kg		3	<p>1) Used to color crackers; maximum levels are enough to achieve the intended technological need.</p> <p>2) Adopted provisions for other colours</p> <p>3) 100 mg/kg as beta-carotene is needed to achieve the colour</p>
07.1.3	Other ordinary bakery products (e.g., bagels, pita, English muffins)	1000	mg/kg		3	<p>1)Used to color brown sugar breads; maximum levels are enough to achieve the intended technological need.</p> <p>2) Used to color lemon/orange flavoured sugar breads.</p> <p>3) To improve organoleptic</p>

¹³ 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 18th 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.

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						properties of food. 4) 100 mg/kg as beta-carotene is needed to achieve the colour
07.1.4	Bread-type products, including bread stuffing and bread crumbs	1000	mg/kg	Note 116	3	1) Used to color croutons; maximum levels are enough to achieve the intended technological need. 2) 200 mg/kg as beta-carotene is needed to achieve the colour
07.1.5	Steamed breads and buns	1000	mg/kg		3	1) Used to color brown sugar steamed breads; maximum levels are enough to achieve the intended technological need). 2) Used to color lemon/orange flavoured sugar breads 3) 100 mg/kg as beta-carotene is needed to achieve the colour
07.1.6	Mixes for breads and ordinary bakery wares	1000	mg/kg		6	1) Used to color hot cake (pancake) mix; maximum levels are enough to achieve the intended technological need). 2) Used to color cake mixes e.g. lemon cake. 3) To improve organoleptic properties of food. 4) Allowed in lots of countries like Philippines, India, Korea and others. 5) The amount needed for this colouration is 1000 mg/kg
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	6	
08.3.1.2	Cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	20	mg/kg		6	
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	Notes 4, 16, & 50	6	
09.2	Processed fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Notes 95 & CC	3	Adopt in broader category 09.2 with Notes 95 & CC Consequential effect is to discontinue provisions in subcategories 09.2.1, 09.2.2, 09.2.4.1, 09.2.4.2, and 09.2.5 Revise the provisions in the food subcategories under 09.2 by adopting a single maximum level of 100 mg/kg with Notes 95 and CC
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 95	6	
09.2.2	Frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 41	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	
09.2.5	Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms	500	mg/kg	Note 22	6	
09.3	Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Notes 95 & CC	3	

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
09.3.3	Salmon substitutes, caviar, and other fish roe products	500	mg/kg		6	Consequential effect is to discontinue provisions in subcategories 09.3.3 and 09.3.4 Revise the provisions in the food subcategories under 09.3 by adopting a single maximum level of 100 mg/kg with Notes 95 and CC
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	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	100	mg/kg	Note 95	6	
10.1	Fresh eggs	1000	mg/kg	Note 4	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	50	mg/kg	Note CC	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	Note CC	6	
13.4	Dietetic formulae for slimming purposes and weight reduction	50	mg/kg	Note CC	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	Note CC	6	
13.6	Food supplements	300	mg/kg	Note CC	6	Carotenoids as beta carotene (INS 160ai and 160aii), β -Apo-8-carotenol (160e) and β -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 food supplement capsules and to colour the resulting solution from dissolving/effervescent food supplement tablets. 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. 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.

Recommendation 3 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
14.1.3.2	Vegetable nectar	100	mg/kg	Note CC	6	Used for vegetable nectars
14.1.3.4	Concentrates for vegetable nectar	100	mg/kg	Notes 127 & CC	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	Based on use of beta-carotenes as a color in this category
14.2.2	Cider and perry	200	mg/kg	Note CC	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)	400	mg/kg		3	Revise and adopt provision at 100 mg/kg with Note CC
15.1	Snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	100	mg/kg	Note CC	6	
15.2	Processed nuts, including covered nuts and nut mixtures (with e.g., dried fruit)	100	mg/kg	Note CC	6	

Recommendation 4 - Carotenoids, INS 160a(i), 160a(iii), 160e, 160f						
The eWG recommends that the 40 th CCFA discuss further the following food additive provisions for carotenoids in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
08.1.2	Fresh meat, poultry, and game, comminuted	100	mg/kg	Notes 4, 16, & 117	6	1) Used to make the colour uniform raw meat for utilized in processed products of the categories 08.1.2, 08.2 and 08.3, such as hamburger, meat balls, fresh sausage, and pâtés. Therefore, the Notes 4 and 16 should not be applied to these products. 2) Adopted provisions for other colours
16.0	Composite foods - foods that could not be placed in categories 01 - 15	500	mg/kg		6	1) Used to color bean-paste; maximum levels are enough to achieve the intended technological need. 2) Used for complex foods which are not covered by the other categories. 3) Colour used to improve the organoleptic properties of food 4) If provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions).

CAROTENES, VEGETABLE (INS 160a(ii))

23. The 28th CAC has adopted several provisions in the GSFA for the use of vegetable carotenes.

24. The 41st 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.

Recommendation 1 – Carotenes, Beta-, (Vegetable), INS 160a(ii)					
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for vegetable beta-carotene in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification
01.4.4	Cream analogues	20	mg/kg	Note CC	1) Used to color cream-like products; levels are enough to achieve the intended technological need 2) Cream substitute are consisting of a vegetable fat-water emulsion that are coloured. Colours are used to standadize the colour. A wide range of colours is equally justified and should be equally permitted.

Recommendation 1 – Carotenes, Beta-, (Vegetable), INS 160a(ii)					
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for vegetable beta-carotene in the GSFA.					
Food Cat No.	Food Category	Max Level		Comments	Justification
					3) Expressed as beta-carotene.
05.1.2	Cocoa mixes (syrups)	100	mg/kg	Note CC	1) Used to color cocoa mixes (syrups); levels are enough to achieve the intended technological need
05.1.5	Imitation chocolate, chocolate substitute products	100	mg/kg	Note CC	1) Used to color imitation chocolates; levels are enough to achieve the intended technological need
11.3	Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	50	mg/kg	Note CC	1) Used for liquid sugar syrups; levels are enough to achieve the intended technological need 2) Used to color the toppings for cakes; same as for 11.4) 3) 11.3 covers sugar solutions, invert sugar solutions and invert sugar syrups as defined in the EU "Sugars Directive". There is neither a technological need for colouring these sugars nor permission for the use of colours by EU legislation. In addition, such mixed products are already covered by GSFA food category 11.4 (<i>other sugars and syrups - e.g. xylose, maple syrup, sugar toppings -</i>), which includes all types of table syrups, syrups for fine bakery wares and edible ices (e.g. caramel syrup, flavoured syrups), and decorative sugar toppings (e.g. <u>coloured</u> sugar crystals for cookies) [see GSFA food category descriptors.]
15.3	Snacks - fish based	100	mg/kg		1) Used to color snacks; levels are enough to achieve the intended technological need 2) Restoration of colour which was destroyed during production; 3) To provide colour. 4) Support for 100 mg/kg for category 15.1, which is technical relevant.

Recommendation 2 – Carotenes, Beta- (Vegetable), INS 160a(ii)					
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for vegetable beta-carotenes in the GSFA.					
Food Cat No.	Food Category	Max Level	Comments	Step	Justification provided to eWG
09.1.2	Fresh mollusks, crustaceans, and echinoderms		GMP	Note 16	6
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95	6

Recommendation 3 - Carotenes, Beta-, (Vegetable), INS 160a(ii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for vegetable beta-carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
02.2.1.2 ¹⁴	Margarine and similar products	30	mg/kg	Note CC	3	Revision: revise adopted provision with ML of 25 mg/kg
04.1.1.2	Surface-treated fresh fruit		GMP	Notes 4 & 16	6	
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	
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	1) Used to color sunflower seeds; levels are enough to achieve the intended technological need. 2) Fruits and vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing. 3) CX Stan 79 and 80 contains provisions for colours and GSFA adopted provisions in this category.

¹⁴ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

Recommendation 3 - Carotenes, Beta-, (Vegetable), INS 160a(ii)						
The eWG recommends that the 40 th CCFA <u>adopt</u> the following food additive provisions for vegetable beta-carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
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	1) Used to color pickles; levels are enough to achieve the intended technological need 2) Restoration of colour which was destroyed during production; 3) To provide colour ; 4) Potentially used for e.g. root stalks; 5) To improve organoleptic properties of food. 50 mg/kg as beta-carotene is needed to achieve the colour
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	1) Used to color pulses and legumes; levels are enough to achieve the intended technological need 2) Restoration of colour which was destroyed during production.; 3) To provide colour - CX Stan 55, 58, 81 and 115 contains provisions for colours and GSFA has adopted provisions in this category; 4) Potentially used for e.g. root stalks; and 5) To improve organoleptic properties of food. 50 mg/kg as beta-carotene is needed to achieve the colour
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	Adopt 100 mg/kg with Note CC
05.1.4	Cocoa and chocolate products	1000	mg/kg		3	
06.4.2	Dried pastas and noodles and like products	1000	mg/kg		3	1) The use of other colours, as caramel class III, is being adopted in this food category 2) Used to color Chinese noodle; levels are enough to achieve the intended technological need) 3) Beta-carotene provides colour and supports the various flavour and types of products.
06.4.3	Pre-cooked pastas and noodles and like products	1000	mg/kg		3	For consistency with the CX STAN 249
07.1.6	Mixes for breads and ordinary bakery wares	100	mg/kg	Note CC	3	1) Used to color hot cake (pancake) mix; levels are enough to achieve the intended technological need 2) Used to color cake mixes e.g. lemon cake; 3) To improve organoleptic properties of food; 4) Allowed in lots of countries like Philippines, India, Korea and others
09.1.1	Fresh fish	100	mg/kg	Notes 4, 16, 50, & CC	6	
09.2.4.1	Cooked fish and fish products	1000	mg/kg	Note 95	3	
12.2	Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	500	mg/kg		3	Adopt in subcategory 12.2.2 only.
12.2.2	Seasoning and condiments	500	Mg/kg		3	Consequential effect is to discontinue provision in broader food category 12.2 Revise to food subcategory 12.2.2, only
12.10.3	Fermented soybean paste (e.g., miso)	1000	mg/kg		6	Used in Miso

Recommendation 3 - Carotenes, Beta-, (Vegetable), INS 160a(ii)						
The eWG recommends that the 40 th CCFA <u>adopt</u> the following food additive provisions for vegetable beta-carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
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 synthetic colourants
14.1.2.4	Concentrates for vegetable juice	2000	mg/kg	Note 127	3	1) Potentially used as a color for vegetable 2) To improve organoleptic properties of food, preferred to synthetic colourants
14.1.3.2	Vegetable nectar	100	mg/kg	Note CC	3	1) Used for vegetable nectars; levels are enough to achieve the intended technological need) 2) Vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.
14.1.3.4	Concentrates for vegetable nectar	100	mg/kg	Notes 127 & CC	3	1) Used for concentrates for vegetable nectars; levels are enough to achieve the intended technological need) 2) Vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.
15.1	Snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	25	mg/kg		6	Adopte 100 mg/kg with Note CC
15.1	Snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	100	mg/kg	Note CC	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.

Recommendation 4 – Carotenes, Beta-, (Vegetable), INS 160a(ii)						
The eWG recommends that the 40 th CCFA <u>further discuss</u> the following food additive provisions for vegetable beta-carotenes in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
08.1.2	Fresh meat, poultry, and game, comminuted	20	mg/kg	Notes 4, 16, & 117	6	1) Used to uniform the colour of raw meat utilized in processed products of the categories 08.1.2, 08.2 and 08.3, such as hamburger, meat balls, fresh sausage, and pâtés. Therefore, the Notes 4 and 16 should not be applied to these products. 2) Suggestion to increase level to 100 mg/kg colouring substance as for carotenoids 3) Support for inclusion of Notes 4 and 16; Support for exclusion of Notes 4 and 16

CANTHAXANTHIN (INS 161g)

25. The 28th CAC has adopted one provision for the use of canthaxanthin in the GSFA.
26. The JECFA (1995) assigned an ADI of 0.03 mg/kg bw/d for canthaxanthin.

27. The 30th 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 53rd 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.

Recommendation 1 – Canthaxanthin, INS 161g						
The eWG recommends that the 40 th CCFA discontinue further work on the following food additive provisions for canthaxanthin in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
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	
08.1.2	Fresh meat, poultry, and game, comminuted	1000	mg/kg	Note 94	6	

Recommendation 2 - Canthaxanthin, INS 161g						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for canthaxanthin 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)	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 ¹⁵	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	
05.4	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	Adopt 15 mg/kg
06.3	Breakfast cereals, including rolled oats	50	mg/kg		3	
06.4.2	Dried pastas and noodles and like products	15	mg/kg		6	Used in foods in category 06.4.2
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		

¹⁵ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

Recommendation 2 - Canthaxanthin, INS 161g						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for canthaxanthin in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms	35	mg/kg	Note 95	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	6	
09.3.3	Salmon substitutes, caviar, and other fish roe products	15	mg/kg		6	
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	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	6	

Recommendation 3 – Canthaxanthin, INS 161g						
The eWG recommends that the 40 th CCFA discuss further the following food additive provisions for canthaxanthin in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.3	Chewing gum	15	mg/kg		6	1) Technical Justification Canthaxanthin, as per other food colours used in chewing gum, belongs to a wide range of coloring agents which allow to adapt the colour to the best taste of consumer 2) Safety Canthaxanthin is not used in a wide range of chewing gum products. Therefore, it is not consumed by a wide range of the population. Assuming a maximum level of use of 30 mg/kg, and a consumption of 3g per day and that during chewing 100% of the contained

Recommendation 3 – Canthaxanthin, INS 161g						
The eWG recommends that the 40 th CCFA discuss further the following food additive provisions for canthaxanthin in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						canthaxanthin is ingested; it would correspond to only 5% of the ADI. 3) Canthaxanthin is assigned a very low ADI and is only permitted for use in french sausage in EC.

GRAPE SKIN EXTRACT (INS 163(ii))

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

Recommendation 1 – Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA include at Step 3 the following food additive provisions for grape skin extracts in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification
05.1.2	Cocoa mixes (syrops)	200	mg/kg	Note DD		1) Used for cocoa mixtures; maximum level is enough to achieve the technological need 2) Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted. 3) Support for max use of 200 mg/kg pigment.
05.1.3	Cocoa-based spreads, incl. fillings	200	mg/kg	Note DD		1) Used for fillings; maximum level is enough to achieve the technological need 2) Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted. 3) Support for max use of 200 mg/kg pigment.
05.1.4	Cocoa and chocolate products	200	mg/kg	Note DD		1) Used for chocolate products; maximum level is enough to achieve the technological need 2) Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted. 3) Support for max use of 200 mg/kg pigment. 4) The current eWG recommendation is to adopt 500 mg/kg for Category 5.2 (Hard and Soft Candy, Marzipan and Nougats). The candies under 5.2 would fall into category 5.1.4 when covered with chocolate. Examples of these products include chocolate covered mints (e.g. Dark Chocolate Covered Altoids), chocolate covered gummy bears, chocolate covered marzipan, chocolate covered nougat, etc. Therefore, the same use level of grape skin extract that is allowed in 5.2 should be permitted for candies under 5.1.4 Cocoa and Chocolate.
15.3	Snacks - fish based	500	mg/kg			1) Used to color snacks; maximum level is enough to achieve the technological need. 2) Us to restore colour which was destroyed during production.

Recommendation 2 – Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA discontinue 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
01.6.1	Unripened cheese	1000	mg/kg		3	No Technological Justification
01.6.2.1	Ripened cheese, includes rind	125	mg/kg		6	No Technological Justification
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	6	No Technological Justification
12.2	Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	1500	mg/kg		3	Reassigned to subcategory. See Recommendation 2

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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	Notes 52 & DD	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 be equally permitted
01.4	Cream (plain) and the like	1500	mg/kg		3	Adopt in subcategory 01.4.4 only.
01.4.4	Cream analogues	150	mg/kg	Note DD		Consequential effect is to discontinue provision in broader food category 01.4 1) Reassigned from broader food category. 2) Colours are used to standardize the colour 3) Used to color cream-like products; maximum level is enough to achieve the technological need 4) support for max use of 150 mg/kg pigment which is needed. 5) Use in cream/milk substitutes consisting of a vegetable fat-water emulsion that are coloured. 6) Already adopted colours for this category.
01.5.2	Milk and cream powder analogues	150	mg/kg	Note DD	3	1) Used as a color for milk-like products e.g. strawberry milk; maximum level is enough to achieve the technological need 1) Use in Cream/milk substitutes consisting of a vegetable fat-water emulsion that are coloured. 2) Colours are used to standardize the colour. 3) Already adopted colours for this category. 4) Support for max use of 150 mg/kg pigment which is needed.
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)	200	mg/kg	Note DD	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	200	mg/kg	Note DD	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	1000	mg/kg		3	Adopt 100 mg/kg with Note DD
03.0	Edible ices, including sherbet and sorbet	100	mg/kg	Note DD	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 & 16	6	
04.1.2.3	Fruit in vinegar, oil, or brine	1500	mg/kg		3	
04.1.2.4	Canned or bottled (pasteurized) fruit	1500	mg/kg		3	1) Used to color bottled fruit; maximum level is enough to achieve the technological need) 2) Fruits discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.
04.1.2.5	Jams, jellies and marmelades	500	mg/kg	Note DD	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	Note DD	6	500 mg/kg pigment is needed to support the various flavour and types of products. A wide range of colours is equally justified

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
						and should be equally permitted
04.1.2.8	Fruit preparations, including pulp, purees, fruit toppings and coconut milk	500	mg/kg	Note DD	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	500	mg/kg	Note DD	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	500	mg/kg	Note DD	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
04.1.2.11	Fruit fillings for pastries	500	mg/kg	Note DD	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	100	mg/kg	Note DD	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)	100	mg/kg	Note DD	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	100	mg/kg	Note DD	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	100	mg/kg	Note DD	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	200	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.
05.2	Confectionery including hard and soft candy, nougat, etc. other than food categories 05.1, 05.3 and 05.4	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.
05.3	Chewing gum	500	mg/kg	Note DD	6	1) Technological need/level justification 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 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

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
						<p>extra colour is normally required to ensure a reasonable appearance when elevated processing temperatures are required since colour loss and browning may occur. 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>Safety</p> <p>JECFA assigned an ADI of 2.5 mg/kg body weight for grape skin extract.</p> <p>Consumption of a 3g of chewing gum¹⁶ 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.</p> <p>2) Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally permitted.</p>
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.
06.3	Breakfast cereals, including rolled oats	200	mg/kg		6	<p>1) Used to color breakfast cereals; maximum level is enough to achieve the technological need.</p> <p>2) Colour supports the various flavour and types of products. A wide range of colours is equally justified and should be equally.</p> <p>3) Support for max use of 200 mg/kg pigment.</p>
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	200	mg/kg	Note DD	3	
07.0	Bakery wares	1500	mg/kg		3	Adopt in subcategories 07.1.2 and 07.1.4 only.
07.1.2	Crackers, excluding sweet crackers	200	mg/kg	Note DD		Consequential effect is to discontinue provision in broader food category 07.0 Revised to specific food subcategories (07.1.2) and 07.1.4) only.
07.1.4	Bread-type products, including bread stuffing and bread crumbs	200	mg/kg	Note DD		<p>1) Bakery products using colored grapes are sold; maximum level is enough to achieve the technological need)</p> <p>2) Colours required for to identify flavour.</p> <p>07.1.2 -1) Used for cracker products; maximum level is enough to achieve the technological need.</p> <p>2) Colours required for to identify flavour. To provide colour.</p> <p>3) Support for max use of 200 mg/kg pigment which is needed</p> <p>07.1.4 -1) Used to color croutons; maximum level is enough to achieve the technological need.</p> <p>2) Colours required for to identify flavour.</p> <p>3) Support for max use of 200 mg/kg</p>

¹⁶ 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 18th 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.

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
						pigment which is needed
08.1.1	Fresh meat, poultry, and game, whole pieces or cuts	5000	mg/kg	Notes 4 & 16	3	Food category in which use of one or more colors is justified
08.1.2	Fresh meat, poultry, and game, comminuted	1000	mg/kg	Notes 4, 16, & 94	6	1) Colour required to give a pleasant palatable appearance to a product
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
08.3.1.2	Cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	Colour required to give a pleasant palatable appearance to a product
08.3.1.3	Fermented non-heat treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	Colour required to give a pleasant palatable appearance to a product
08.3.2	Heat-treated processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	Colour required to give a pleasant palatable appearance to a product
08.3.3	Frozen processed comminuted meat, poultry, and game products	5000	mg/kg	Note 16	3	Colour required to give a pleasant palatable appearance to a product
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	Notes 16 & 95	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.
09.2.4.3	Fried fish and fish products, including mollusks, crustaceans, and echinoderms	1000	mg/kg	Notes 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	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), excluding products of food categories 09.3.1 - 09.3.3	1500	mg/kg	Note 16	3	
09.4	Fully preserved, including canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms	1500	mg/kg	Note 16	3	
10.1	Fresh eggs	1500	mg/kg	Note 4	3	Food category in which use of one or more colors is justified
10.4	Egg-based desserts (e.g., custard)	200	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
12.2	Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)	1500	mg/kg		3	Adopt in subcategory 12.2.2 only.

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
12.2.2	Seasonings and condiments	1500	mg/kg			Consequential effect is to discontinue provision in broader food category 12.2 Revised to food subcategory 12.2.2., only.
12.4	Mustards	200	mg/kg	Note DD	3	
12.5	Soups and broths	500	mg/kg	Note DD	3	
12.6.1	Emulsified sauces (e.g., mayonnaise, salad dressing)	300	mg/kg	Note DD	3	
12.6.2	Non-emulsified sauces (e.g., ketchup, cheese sauce, cream sauce, brown gravy)	300	mg/kg	Note DD	3	
12.6.3	Mixes for sauces and gravies	300	mg/kg	Note DD	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)	250	mg/kg	Note DD	3	
13.4	Dietetic formulae for slimming purposes and weight reduction	250	mg/kg	Note DD	3	
13.5	Dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6	250	mg/kg	Note DD	3	
13.6	Food supplements	250	mg/kg	Note DD	3	<p>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.</p> <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 1500mg/kg based on the content of the colour component. Grape skin extract is a preferred alternative to the artificial colours.</p>
14.1.3.2	Vegetable nectar	1500	mg/kg		3	<p>1) Used for vegetable nectars; maximum level is enough to achieve the technological need</p> <p>2) Vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.</p> <p>3) Support for max use of 150 mg/kg pigment which is needed</p> <p>4) If the use is safe and the product is labeled in a truthful and non-misleading manner, this is sufficient to ensure consumer protection. 5) The US has established safe conditions of use for grape skin extract in still and carbonated drinks and ades, beverage bases, and alcoholic beverages.</p>
14.1.3.4	Concentrates for vegetable nectar	1500	mg/kg	Note 127	3	<p>1) Used for vegetable nectar concentrates; maximum level is enough to achieve the technological need.</p> <p>2) Vegetables discolour during processing and storage. Therefore use as restoration of colour which was destroyed during heat processing.</p> <p>3) Support for max use of 150 mg/kg</p>

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
						pigment which is needed 4) If the use is safe and the product is labeled in a truthful and non-misleading manner, this is sufficient to ensure consumer protection. The US has established safe conditions of use for grape skin extract in still and carbonated drinks and ades, beverage bases, and alcoholic beverages.
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	
14.2.3.2	Sparkling and semi-sparkling grape wines	1500	mg/kg		3	1) Used for sparkling grape wines; maximum level is enough to achieve the technological need); 2) Colour is used to provide colour. 3) support for max use of 300 mg/kg pigment which is needed); 4) If the use is safe and the product is labeled in a truthful and non-misleading manner, this is sufficient to ensure consumer protection. The US has established safe conditions of use for grape skin extract in still and carbonated drinks and ades, beverage bases, and alcoholic beverages. 5) In the OIV standard on Oenological Practices, no colours may be used in grape wines (category 14.2.3). Their inclusion in these categories does not seem technologically justified and could mislead consumers. If we consider the proposal listed in CL 2007/28-FA (page14), grape skin extract is considered as an enocyanin, only referenced by the INS number (INS 163ii). Nevertheless, in the wine making process, the grape skin extract is permitted for tannin effect purposes, but not as a colouring agent.
14.2.3.3	Fortified grape wine, grape liquor wine, and sweet grape wine	1500	mg/kg		3	1) Used for sweet grape wine; maximum level is enough to achieve the technological need 2) Support for max use of 300 mg/kg pigment which is needed); 3) If the use is safe and the product is labeled in a truthful and non-misleading manner, this is sufficient to ensure consumer protection. The US has established safe conditions of use for grape skin extract in still and carbonated drinks and ades, beverage bases, and alcoholic beverages. 4) In the OIV standard on Oenological Practices, no colours may be used in grape wines (category 14.2.3). Their inclusion in these categories does not seem technologically justified and could mislead consumers. If we consider the proposal listed in CL 2007/28-FA (page14), grape skin extract is considered as an enocyanin, only referenced by the INS number (INS 163ii). Nevertheless, in the wine making process, the grape skin extract is permitted for tannin effect purposes, but not as a colouring agent.
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	

Recommendation 3 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA adopt 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
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	

Recommendation 4 - Grape Skin Extracts, INS 163(ii)						
The eWG recommends that the 40 th CCFA discuss further 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
04.1.2.7	Candied fruit	1500	mg/kg		3	ML 1500 mg/kg seems high – consumption by children might exceed ADI
09.2.4.2	Cooked mollusks, crustaceans, and echinoderms	1000	mg/kg		3	ML 1000 mg/kg seems high – consumption by children might exceed
16.0	Composite foods - foods that could not be placed in categories 01 - 15	1500	mg/kg		3	1) Used for composite food; maximum level is enough to achieve the technological need.
16.0	Composite foods - foods that could not be placed in categories 01 - 15	10	mg/kg		6	2) Used for complex food which are not covered by the other categories. 3) Colour used to improve the organoleptical properties of food 4) If provisions are proposed for category 16, the products must be fully defined and the additive uses restricted to these products. In the vast majority of cases products can be covered by other food categories or as composite products (and therefore subject to carry over provisions)

IRON OXIDES (INS 172(i), 172(ii), 172(iii))

29. The 28th CAC has adopted several provisions in the GSFA for the use of iron oxides.

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

31. The 30th CCFA 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 53rd JECFA (1999) concluded that it is unlikely that intake of iron oxides would exceed the ADI of 0-0.5 mg/kg bw.

Recommendation 1 – Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA discontinue 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	
08.1.2	Fresh meat, poultry, and game, comminuted	1000	mg/kg	Note 94	6	
08.3.1.1	Cured (including salted) non-heat treated processed comminuted meat, poultry, and game products	1000	mg/kg	Note 78	6	
08.3.1.3	Fermented non-heat treated processed comminuted meat, poultry, and game products		GMP	Note 16	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	6	

Recommendation 1 – Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA discontinue 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
09.2.1	Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms		GMP	Note 95	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	
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	

Recommendation 2 - Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA adopt 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	6	To improve organoleptic properties of food
05.3	Chewing gum	10.000	mg/kg		6	<p>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.</p> <p>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.</p> <p>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.</p> <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.</p> <p>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</p>

Recommendation 2 - Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						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. 2) The proposed maximum level of use for Food Category 05.3 (Chewing Gum) is justified to achieve the intended effect.
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	50	mg/kg		6	
13.6	Food supplements	7500	mg/kg	Note 3	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.</p> <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 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</p>

Recommendation 2 - Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA adopt the following food additive provisions for iron oxides in the GSFA.						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
						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. 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	6	To improve organoleptic properties of food

Recommendation 3 - Iron Oxides, INS 172(i), 172(ii), 172(iii)						
The eWG recommends that the 40 th CCFA further discuss the following food additive provisions for iron oxides in the GSFA						
Food Cat No.	Food Category	Max Level		Comments	Step	Justification provided to eWG
05.1.3	Cocoa-based spreads, including fillings		GMP		6	1) Food category in which use of one or more colors is justified 2) Provision requires a numeric level of use instead of level consistent with good manufacturing practice (GMP), because of a numerical ADI Request additional information; numerical level needed to achieve technological effect and justification
10.4	Egg-based desserts (e.g., custard)		GMP		6	1) To provide colour (other colours are permitted) 2) Provision requires a numeric level of use instead of level consistent with good manufacturing practice (GMP), because of a numerical ADI for this group of colours. 3) suggest ML of 150 mg/kg Request additional information; numerical level needed to achieve technological effect and justification
12.4	Mustards		GMP		6	1) To provide colour (other colours are permitted.
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	2) To improve organoleptic properties of food 3) Provision requires a numeric level of use instead of level consistent with good manufacturing practice (GMP), because of a numerical ADI for this group of colours. Request additional information; numerical level needed to achieve technological effect and justification
12.9.5	Other protein products		GMP		6	1) 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	2) Provision requires a numeric level of use instead of level consistent with good manufacturing practice (GMP), because of a numerical ADI for this group of colours.
13.4	Dietetic formulae for slimming purposes and weight reduction		GMP		6	Request additional information; numerical level needed to achieve technological effect and justification
13.5	Dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1 - 13.4 and 13.6		GMP		6	Request additional information; numerical level needed to achieve technological effect and justification

Appendix I - 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 tubers, pulses and legumes, and aloe vera), seaweed, and nut and seed purees and spreads (e.g., peanut butter)	1) Use of sweeteners is <u>not</u> technologically justified 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), 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 (syrups)	Include at request of Brazil and the European Commission.

Food Cat. No.	Food Category Title	Justification Provided to eWG
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 <u>not</u> 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 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.

Food Cat. No.	Food Category Title	Justification Provided to eWG
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 technologically justified
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 technologically justified
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 II - GSFA Categories in which the use of one or more colors is technologically 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 ¹⁷	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 Notes 4 and 16
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 lose 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, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	Include with Notes 4 and 16

¹⁷ CX/FA 08/40/6 proposes to revise the GSFA food category system. If endorsed by the CCFA, food categories 02.2.1.1, 02.2.1.2 and 02.2.1.3 would be deleted.

FCS No.	Title	Justification
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	Include because CX STAN 249 (Instant Noodles) contains color provisions
06.4.3	Pre-cooked pastas and noodles and like products	
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	
06.6	Batters (e.g., for breading or batters for fish or poultry)	Include because there are adopted provisions for colors in these GSFA food categories
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)	Include with Notes 4 & 16
08.1	Fresh meat, poultry and game	
08.1.1	Fresh meat, poultry and game, whole pieces or cuts	
08.1.2	Fresh meat, poultry and game, comminuted	
08.2	Processed meat, poultry, and game products in whole pieces or cuts	
08.2.1	Non-heat treated processed meat, poultry, and game products in whole pieces or cuts	
08.2.1.1	Cured (including salted) non-heat treated processed meat, poultry, and game products in whole pieces or cuts	
08.2.1.2	Cured (including salted) and dried non-heat treated processed meat, poultry, and game products in whole pieces or cuts	
08.2.1.3	Fermented non-heat treated processed meat, poultry, and game products in whole pieces or cuts	
08.2.2	Heat-treated processed meat, poultry, and game products in whole pieces or cuts	
08.2.3	Frozen processed meat, poultry, and game products in whole pieces or cuts	
08.3	Processed comminuted meat, poultry, and game products	
08.3.1	Non-heat treated processed comminuted meat, poultry, and game products	

FCS No.	Title	Justification
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 Notes 4 & 16
09.1.1	Fresh fish	Include with Notes 4 & 16
09.1.2	Fresh mollusks, crustaceans and echinoderms	Include with Notes 4 & 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
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 95
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	
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
10.1	Fresh eggs	Include with Note 4
10.2	Egg products	
10.2.1	Liquid egg products	
10.2.2	Frozen egg products	Include because there are adopted provisions for colors in these GSFA food categories
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)	
11.3	Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3	Include because there are adopted provisions for colors in this GSFA food category
11.4	Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	
12.2.2	Seasonings and condiments	
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	Include because CS STAN 117 contains provisions for colors and there are adopted provisions for colors in this GSFA food category
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)	

FCS No.	Title	Justification
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)	
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	
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	Include because there are adopted provisions for colors in this GSFA food category
14.2.1	Beer and malt beverages	
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	

Table of GSFA Notes

1	As adipic acid
2	On dry ingredient, dry weight, dry mix or concentrate basis.
3	Surface treatment.
4	For decoration, stamping, marking or branding the product.
5	Used in raw materials for manufacture of the finished food.
6	As aluminium.
7	Use level not in finished food.
8	As bixin.
9	As total bixin or norbixin.
10	As ascorbyl stearate.
11	Flour basis.
12	Carryover from flavouring substances.
13	As benzoic acid.
14	For use in hydrolyzed protein liquid formula only.
15	Fat or oil basis.
16	For use in glaze, coatings or decorations for fruit, vegetables, meat or fish.
17	As cyclamic acid.
18	Added level; residue not detected in ready-to-eat food.
19	Used in cocoa fat; use level on ready-to-eat basis.
20	On total amount of stabilizers, thickeners and/or gums.
21	As anhydrous calcium disodium EDTA.
22	For use in smoked fish products only.
23	As iron.
24	As anhydrous sodium ferrocyanide.
25	As formic acid.
26	For use in baking powder only.
27	As p-hydroxybenzoic acid.
28	ADI conversion: if a typical preparation contains 0.025 µg/U, then the ADI of 33,000 U/kg bw becomes: $[(33000 \text{ U/kg bw}) \times (0.025 \text{ µg/U}) \times (1 \text{ mg}/1000 \text{ µg})] = 0.825 \text{ mg/kg bw}$
29	Reporting basis not specified.
30	As residual NO ₃ ion.
31	Of the mash used.
32	As residual NO ₂ ion.
33	As phosphorus.
34	Anhydrous basis.
35	For use in cloudy juices only.
36	Residual level.
37	As weight of nonfat milk solids.
38	Level in creaming mixture.
39	Only when product contains butter or other fats and oils.
40	INS 451i (Pentasodium Triphosphate) only, to enhance the effectiveness of benzoates and sorbates.
41	Use in breading or batter coatings only.
42	As sorbic acid
43	As tin.
44	As residual SO ₂ .
45	As tartaric acid.
46	As thiodipropionic acid.
47	On egg yolk weight, dry basis.
48	For olives only.
49	For use on citrus fruits only.
50	For use in fish roe only.
51	For use in herbs only.
52	Excluding chocolate milk.
53	For use in coatings only.
54	For use in cocktail cherries and candied cherries only.
55	Singly or in combination, within the limits for sodium, calcium, and potassium specified in the commodity standard.
56	Provided starch is not present.
57	GMP is 1 part benzoyl peroxide and not more than 6 parts of the subject additive by weight.
58	As calcium.
59	Use as packaging gas.
60	If used as a carbonating agent, the CO ₂ in the finished wine shall not exceed 39.2 mg/kg.
61	For use in minced fish only.
62	As copper.
63	On amount of dairy ingredients.
64	Level added to dry beans; 200 mg/kg in ready-to-eat food, anhydrous basis.
65	Carryover from nutrient preparations.

- 66 As formaldehyde. For use in provolone cheese only.
- 67 Except for use in liquid egg whites at 8800 mg/kg as phosphorus, and in liquid whole eggs at 14,700 mg/kg as phosphorus.
- 68 For use in products with no added sugar only.
- 69 Use as carbonating agent.
- 70 As the acid.
- 71 Calcium, potassium and sodium salts only.
- 72 Ready-to-eat basis.
- 73 Except whole fish.
- 74 Excluding liquid whey and whey products used as ingredients in infant formula.
- 75 Use in milk powder for vending machines only.
- 76 Use in potatoes only.
- 77 For special nutritional uses only.
- 78 For use in tocino (fresh, cured sausage) only.
- 79 For use on nuts only.
- 80 Equivalent to 2 mg/dm² surface application to a maximum depth of 5 mm.
- 81 Equivalent to 1 mg/dm² surface application to a maximum depth of 5 mm.
- 82 For use in shrimp; 6000 mg/kg for Crangon crangon and Crangon vulgaris.
- 83 L(+)-form only.
- 84 For infants over 1 year of age only.
- 85 Excluding use in surimi and fish roe products at 500 mg/kg.
- 86 Use in whipped dessert toppings other than cream only.
- 87 Treatment level.
- 88 Carryover from the ingredient.
- 89 Except for use in dried tangle (KONBU) at 150 mg/kg.
- 90 For use in milk-sucrose mixtures used in the finished product.
- 91 Benzoates and sorbates, singly or in combination.
- 92 Excluding tomato-based sauces.
- 93 Except natural wine produced from *Vitis vinifera* grapes.
- 94 For use in loganiza (fresh, uncured sausage) only.
- 95 For use in surimi and fish roe products only.
- 96 On a dried weight basis of the high intensity sweetener.
- 97 In the finished product/final cocoa and chocolate products.
- 98 For dust control.
- 99 For use in fish fillets and minced fish only.
- 100 For use as a dispersing agent in dill oil used in the final food.
- 101 Use level singly, not to exceed 15,000 mg/kg in combination.
- 102 For use in fat emulsions for baking purposes only.
- 103 Except for use in special white wines at 400 mg/kg.
- 104 Maximum 5000 mg/kg residue in bread and yeast-leavened bakery products.
- 105 Except for use in dried gourd strips (KAMPYO) at 5000 mg/kg.
- 106 Except for use in Dijon mustard at 500 mg/kg.
- 107 Except for use of sodium ferrocyanide (INS 535) and potassium ferrocyanide (INS 536) in food-grade dendridic salt at 29 mg/kg as anhydrous sodium ferrocyanide.
- 108 For use on coffee beans only.
- 109 Use level reported as $25 \text{ lbs}/1000 \text{ gal} \times (0.45 \text{ kg}/\text{lb}) \times (1 \text{ gal}/3.75 \text{ L}) \times (1 \text{ L}/\text{kg}) \times (106\text{mg}/\text{kg}) = 3000 \text{ mg}/\text{kg}$
- 110 For use in frozen French fried potatoes only.
- 111 Excluding dried glucose syrup used in the manufacture of sugar confectionery at 150 mg/kg and glucose syrup used in the manufacture of sugar confectionery at 400 mg/kg.
- 112 For use in grated cheese only.
- 113 Use level reported as acesulfame potassium equivalents.
- 114 Excluding cocoa powder.
- 115 For use in pineapple juice only.
- 116 For use in doughs only.
- 117 Except for use in loganiza (fresh, uncured sausage) at 1000 mg/kg.
- 118 Except for use in tocino (fresh, cured sausage) at 1000 mg/kg.
- 119 Use level reported as aspartame equivalents.
- 120 Except for use in caviar at 2500 mg/kg.
- 121 Excluding fermented fish products at 1000 mg/kg.
- 122 Subject to national legislation of the importing country.
- 123 1000 mg/kg for beverages with pH greater than 3.5.
- 124 Only for products containing less than 7% ethanol.
- 125 For use as a release agent for baking pans in a mixture with vegetable oil.
- 126 For releasing dough in dividing or baking only.
- 127 As served to the consumer.
- 128 INS 334 (Tartaric Acid) only.
- 129 For use as an acidity regulator in grape juice.
- 130 Singly or in combination: Butylated Hydroxyanisole (BHA, INS 320), Butylated Hydroxytoluene (BHT, INS 321), Tertiary Butylated Hydroquinone (TBHQ, INS 319), and Propyl Gallate (INS 310).

- 131 As a result of use as a flavour carrier.
- 132 Except for use at 130 mg/kg (dried basis) in semi-frozen beverages.
- 133 Any combination of Butylated Hydroxyanisole (BHA, INS 320), Butylated Hydroxytoluene (BHT, INS 321), and Propyl Gallate (INS 310) at 200 mg/kg, provided that single use limits are not exceeded.
- 134 For baking purposes only.
- 135 Except for use in dried apricots at 2000 mg/kg, bleached raisins at 1500 mg/kg, and desiccated coconut at 50 mg/kg.
- 136 For use in white vegetables only.
- 137 Except for use in frozen avocado at 300 mg/kg.
- 138 For use in energy-reduced products only.
- 139 For use in mollusks, crustaceans, and echinoderms only.
- 140 Except for use in canned abalone (PAUA) at 1000 mg/kg.
- 141 For use in white chocolate only.
- 142 Excluding coffee and tea.
- 143 For use in fruit juice-based drinks and dry ginger ale only.
- 144 For use in sweet and sour products only.
- 145 Products are energy reduced or with no added sugar.
- 146 Use level for synthetic β -Carotene (INS 160ai); 35 mg/kg for β -Apo-8-carotenol (INS 160e) and β -Apo-8-carotenoic acid, methyl or ethyl ester (INS 160f).
- 147 Excluding whey powders for infant food.
- 148 Use as an antioxidant synergist.
- 149 Use temporarily endorsed.
- 150 Use level for soy-based formula; 25,000 mg/kg for hydrolyzed protein and/or amino acid-based formula.
- 151 Use level for soy-based formula; 1,000 mg/kg for hydrolyzed protein and/or amino acid-based formula.
- 152 For frying purposes only.
- 153 For use in instant noodles only.
- 154 For use in coconut milk only.
- 155 For use in frozen, sliced apples only.
- 156 For use in microsweets and breath freshening mints at 2500 mg/kg.
- 157 For use in microsweets and breath freshening mints at 2000 mg/kg.
- 158 For use in microsweets and breath freshening mints at 1000 mg/kg.
- 159 For use in pancake syrup and maple syrup only.
- 160 For use in ready-to-drink products and pre-mixes for ready-to-drink products only.
- 161 Subject to national legislation of the importing country aimed, in particular, at consistency with Section 3.2 of the Preamble.
- 162 For use in dehydrated products and salami-type products only.
- 163 For use in microsweets and breath freshening mints at 3000 mg/kg.
- 164 For use in microsweets and breath freshening mints at 30,000 mg/kg.
- 165 For use in products for special nutritional use only.
- 166 For milk-based sandwich spreads, only.
- 167 For dehydrated products only.
- 168 Quillaia Extract Type 1 (INS 999(i)) only. Acceptable maximum use level is expressed on saponin basis.
- 169 For use in fat-based sandwich spreads only.
- 170 Acceptable maximum level based on combined state of total sulphites. This is equivalent to 70 mg/kg in the free state.
- 171 Excluding anhydrous milkfat.
- A Except for use in fruit sauces, fruit toppings, coconut cream, coconut milk and “fruit bars” at 50 mg/kg.
- A1 Except for use in cereal-based puddings at 1000 mg/kg.
- A2 INS 541(i) (Sodium aluminium phosphate, acidic) only.
- A3 Singly or in combination: Sodium Aluminium Silicate (INS 554), Calcium Aluminium Silicate (INS 556), and Aluminium Silicate (INS 559).
- B For use in loganiza (fresh, uncured sausages) only.
- B1 Except for use in jelly-type fruit-based desserts at 200 mg/kg.
- B2 For use in tomato-based sauces only.
- B3 For use in sliced, cut, shredded, or grated cheese only.
- C Use level in sausage casings; residue in sausage prepared with such casings should not exceed 100 mg/kg.
- C1 Except for use in cereal-based puddings at 500 mg/kg.
- C2 For use in surface treatment of sausages.
- D For use in loganiza (fresh, uncured sausages) only.
- E Use level in sausage casings; residue in sausage prepared with such casings should not exceed 100 mg/kg.
- F Except for use in fish roe at 100 mg/kg
- X As norbixin.
- ZZ For use in microsweets and breath freshening mints at 10,000 mg/kg