

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 CCFAs <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 <u>discontinue</u> 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. Consequential effect is to discontinue provision in broader food category 01.6.4. Revise to food subcategory 01.6.4.2, only |
| 01.6.4.2 | Flavoured processed cheese, including containing fruit, vegetables, meat, etc. | 50 | mg/kg | | | |
| 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. 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 |
| 01.7 | Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt) | 500 | mg/kg | | 3 | |
| 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. Provides numeric ML to replace adopted GMP limits |
| 09.2.5 | Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms | | GMP | Note 50 | 6 | 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 |
| | | | | | | colors. 3) Used to color rice biscuits and biscuits. 4) To provide colour (other colours are permitted) 5) To improve organoleptic properties of food 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. See recommendation for food category 05.0; revise accordingly |
| 14.2 | Alcoholic beverages, including alcohol-free and low-alcoholic counterparts | 50000 | mg/kg | | 3 | 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 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 1) Technological need in 14.2 is questioned, as this use could mislead the consumer 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 |
| 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 | 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. 1) Technological need is questioned. Justification should be provided why the carry over wouldn't be sufficient. 2) Used to color bean-paste. 3) To improve organoleptic properties of food. 4) maximum levels are enough to achieve the intended technological need) 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) |

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. 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. 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 | 1)Used for sweet sauces 2) Colour supports the various flavour and types of products. |
| 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 | 1) Used to color bread; maximum levels are enough to achieve the intended technological need. 2) Colour the speciality breads e.g. carrot containing bread. 3) Already adopted provision for colour in this category in the GSFA. |
| 07.1.2 | Crackers, excluding sweet crackers | 1000 | mg/kg | | 3 | 1) Used to color crackers; maximum levels are enough to achieve the intended technological need. 2) Adopted provisions for other colours 3) 100 mg/kg as beta-carotene is needed to achieve the colour |
| 07.1.3 | Other ordinary bakery products (e.g., bagels, pita, English muffins) | 1000 | mg/kg | | 3 | 1)Used to color brown sugar breads; maximum levels are enough to achieve the intended technological need. 2) Used to color lemon/orange flavoured sugar breads. 3) To improve organoleptic |

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 filets, 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) | |
| 08.1 | Fresh meat, poultry and game | Include with Notes 4 & 16 |
| 08.1.1 | Fresh meat, poultry and game, whole pieces or cuts | Include with Notes 4 & 16 |
| 08.1.2 | Fresh meat, poultry and game, comminuted | Include with Notes 4 & 16 |
| 08.2 | Processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.1 | Non-heat treated processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.1.1 | Cured (including salted) non-heat treated processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.1.2 | Cured (including salted) and dried non-heat treated processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.1.3 | Fermented non-heat treated processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.2 | Heat-treated processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.2.3 | Frozen processed meat, poultry, and game products in whole pieces or cuts | Include with Note 16 |
| 08.3 | Processed comminuted meat, poultry, and game products | Include with Note 16 |
| 08.3.1 | Non-heat treated processed comminuted meat, poultry, and game products | Include with Note 16 |

| 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

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| 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-carotenal (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