

# codex alimentarius commission E



FOOD AND AGRICULTURE  
ORGANIZATION  
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Agenda Item 2

CX/FA 09/41/2 Add.1  
March 2009

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FOOD ADDITIVES

Forty-first Session

Shanghai, China, 16-20 March 2009

### MATTERS REFERRED BY THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES AND TASK FORCES

#### MATTERS ARISING FROM OTHER CODEX COMMITTEES

#### Matters for action

#### Codex Committee on Processed Fruits and Vegetables (CCPFV)<sup>1</sup>

1. The 24<sup>th</sup> Session of the CCPFV agreed to request the Committee on Food Additives to associate new functional classes with the food additives below in the *Class Names and International Numbering System for Food Additives* (CAC/GL 36-1986), as follows:

- ascorbic acid (INS 300): preservative (proposed for Jams, Jellies and Marmalades) and acidity regulator (for Certain Canned Vegetables);
- mono- and diglycerides (INS 471): antifoaming agent (proposed for Jams, Jellies and Marmalades).

2. The Committee **is asked** to consider the above request.

#### FAO/WHO Coordinating Committee Asia (CCASIA)<sup>2</sup>

3. The 16<sup>th</sup> Session of the CCASIA, with regard to the food additive provisions for edible sago flour, noted that the descriptor of Food Category 06.2.1 "Flours" of the GSFA only included flours produced from the milling of grain, cereals and tubers (e.g. cassava) and that, therefore, the use in this section of a general reference to the provisions of Tables 1 and 2 of the GSFA might not be appropriate. In view of this, the Committee agreed: to add in the section the food additive listing corresponding to food additives listed in the GSFA for Food Category 6.2.1; and to request CCFA to clarify whether Food Category 06.2.1 was intended to include products like sago flour. It was understood that in case of a positive reply from the CCFA, the listing of food additives would be replaced by the general reference to the provision of Tables 1 and 2 of the GSFA.

4. The Committee **is asked** to consider the above request.

<sup>1</sup> ALINORM 09/32/27, para. 96

<sup>2</sup> ALINORM 09/32/15, para. 71

### **Codex Committee on Fats and Oils (CCFO)<sup>3</sup>**

5. The 21<sup>st</sup> Session of the CCFO considered the matters arising from the CCFA<sup>4</sup> on the basis of the recommendations of the in-session Working Group on Food Additives as follows:

#### ***Standard for Fat Spreads and Blended Spreads***

6. The Committee noted that the in-session Working Group recommended a maximum use level of 20 mg/kg (as bixin) for annatto extracts, bixin-based (INS 160b(i)), while some delegations had requested a level of 100 mg/kg based on the use levels reported in certain products of their countries.

7. The Delegation of the European Community supported the level of 20 mg/kg, as this level was consistent with the levels for annatto extracts for food category 02.2.2 (Fat spreads, dairy fat spreads and blended spreads) of the *General Standard for Food Additives* (GSFA, CODEX STAN 192-1995) and in the *Standard for Dairy Fat Spreads* (CODEX STAN 253-2006), which had been adopted by the 31<sup>st</sup> Session of the Commission.

8. Several delegations supported the level of 100 mg/kg because in their view existence of the products with this use level indicated the technological need and suggested that whether this level was appropriate from the viewpoint of food safety be left for consideration by the Committee on Food Additives. It was noted that fat spreads and blended spreads could be produced from vegetable oils, which were usually less coloured than milk fats, and might require higher levels of colours to achieve the same technological effect. It was further noted that consumer preferences for coloured products vary among regions and that even if the maximum use level was set at a higher level, highly coloured products were unlikely to be widely marketed in a region with a different consumer preference.

9. In view of these observations, the Committee agreed with the level of 100 mg/kg. The Delegation of the European Community expressed its reservation on this decision.

10. The Committee agreed with the recommendation of the In-session Working Group to list beta-carotene (*Blakeslea trispora*) (160a(iii)) along with other carotenoids.

#### ***Annatto extracts***

11. The Committee agreed that annatto extracts approved for use in the *Standards for Edible Fats and Oils not covered by Individual Standards* (CODEX STAN 19-1981) and *Named Animal Fats* (CODEX STAN 211-1999) should be bixin-based and confirmed the current maximum use levels.

#### ***Review of food additive provisions in standards for fats and oils***

12. The Committee agreed with the recommendations of the In-session Working Group to delete food additives that did not have ADIs established by JECFA and to update the INS numbers and food additive names in accordance with the *Class Names and the International Numbering System for Food Additives* (CAC/GL 36-1989) in *Standards for Fat Spread ad Blended Spreads, Named Vegetable Oils, Edible Fats and Oils not covered by Individual Standards, Named Animal Fats and Olive Oils and Olive Pomace Oils*. In particular, the Committee noted the following and agreed to make amendments accordingly:

- Among several tocopherols, three types of alpha-tocopherols (INS 307a, b, c) were included in the group ADI established by JECFA, while synthetic gamma- and delta-tocopherols were not included;
- Among three sodium citrates (INS 331(i), (ii), (iii)), disodium monohydrogen citrate has not been evaluated by the JECFA;
- Curcumin (INS 100(i)) had an ADI established by JECFA, while turmeric (INS 100(ii)) did not; and
- "Monoglyceride citrate" was covered by the specifications for citric and fatty acid esters of glycerol (INS 472c)

13. The Committee further agreed to change the maximum use levels for tocopherols from GMP to 300 mg/kg, in line with the draft provision for corresponding food categories in the GSFA, noting that a numeric ADI was allocated to tocopherols. The Delegation of the European Community expressed its reservation on this decision.

<sup>3</sup> ALINORM 09/32/17, para. 23 and Appendix VII

<sup>4</sup> ALINORM 07/30/12, paras 48 and 70 and Appendix IV

14. One delegation pointed out that certain oils naturally contained high levels of tocopherol and suggested adding a remark to indicate that the level in the food additive list did not take into account naturally occurring tocopherols. While noting that the purpose of this remark was to prevent confusion during the enforcement of the standard, the Committee agreed that the problem was not specific to tocopherols in vegetable oils but more of a generic nature and that numeric limits indicated in food additive lists were maximum “use” levels and this would be enough to prevent possible misinterpretation by enforcement bodies.

15. The Committee agreed to forward the above amendments to sections on food additives of standards for fats and oils to the 32<sup>nd</sup> Session of the Commission for adoption, subject to the endorsement by the Committee on Food Additives.

16. The Committee **is asked** to endorse the proposed amendments presented in the Annex to this document.

ANNEX

**Amendments to the Sections of food Additives in the Standards for Fats and Oils  
(ALINORM 09/32/17, Appendix VII)**

**CODEX STANDARD FOR FAT SPREADS AND BLENDED SPREADS (CODEX STAN 256-2003)**

**4. FOOD ADDITIVES**

Only those food additive classes listed below are technologically justified and may be used in products covered by this Standard. Within each additive class only those food additives listed below, or referred to, may be used and only for the functions, and within the limits, specified.

**Additive Functional Classes**

- a. Acidity regulators
- b. Antifoaming agents
- c. Antioxidants
- d. Colours
- e. Emulsifiers
- f. Flavour enhancers
- g. Packing gases
- h. Preservatives
- i. Stabilizers
- j. Thickeners

Acidity regulators, antifoaming agents, antioxidants, colours, emulsifiers, flavour enhancers, packing gases, preservatives, stabilizers and thickeners used in accordance with Table 3 of the Codex General Standard for Food Additives are acceptable for use in foods conforming to this Standard.

**4.1 Acidity Regulators**

INS No.	Additive	Maximum Use Level
262(ii)	Sodium Diacetate	1,000 mg/kg
334; 335(i), 335(ii); 336(i), 336(ii); 337	Tartrates	100 mg/kg (as tartaric acid)
338; 339(i), 339(ii), 339(iii); 340(i), 340(ii), 340 (iii); 341(i), 341(ii), 341(iii); 342(i), 342(ii); 343(i), 343(ii), 343(iii); 450(i), 450(ii), 450(iii), 450(v), 450(vi); 450(vii), 451(i), 451(ii); 452(i), (ii), (iii), (iv), (v); 542	Phosphates	1000 mg/kg (as Phosphorus)

**4.2 Antifoaming agent**

INS No.	Additive	Maximum Use Level
900a	Polydimethylsiloxane	10 mg/kg (Frying purposes, only)

**4.3 Antioxidants**

INS No.	Additive	Maximum Use Level
304, 305	Ascorbyl esters	500 mg/kg (As ascorbyl stearate)
<del>307</del>	<del>Tocopherols</del>	<del>500 mg/kg</del>
<b>307a</b>	<b><u>Tocopherol, d-alpha-</u></b>	<b>500 mg/kg (Singly or in combination)</b>
<b>307b</b>	<b><u>Tocopherol concentrate, mixed</u></b>	
<b>307c</b>	<b><u>Tocopherol, dl-alpha</u></b>	
310	Propyl Gallate	200 mg/kg (Fat or oil basis) Singly or in combination
319	Tertiary-Butylhydroquinone	
320	Butylated Hydroxyanisole	
321	Butylated Hydroxytoluene	
384	Isopropyl Citrates	100 mg/kg

INS No.	Additive	Maximum Use Level
385, 386	EDTAs	100 mg/kg (as anhydrous calcium disodium EDTA)
388, 389	Thiodipropionates	200 mg/kg (As thiodipropionic acid)

#### 4.4 Colours

INS No.	Additive	Maximum Use Level
120	Carmines	500 mg/kg
150b	Caramel Colour Class II	500 mg/kg
150c	Caramel Colour Class III	500 mg/kg
150d	Caramel Colour Class IV	500 mg/kg
160a(ii)	Carotenes, Vegetable	1000 mg/kg
100(i)	Curcumin	10 mg/kg
101(i), 101(ii)	Riboflavins	300 mg/kg
160a(i)	Beta-carotene (synthetic)	35 mg/kg (Singly or in combination)
<b>160a(iii)</b>	<b>beta-Carotene (<i>Blakeslea trispora</i>)</b>	
160e	beta-Apo-8'-Carotenal	
160f	Beta-Apo-8'-Carotenoic Acid, methyl or ethyl ester	
<b>160b(i)</b>	<b>Annatto extracts, bixin-based</b>	<b>100 mg/kg (as bixin)</b>

#### 4.5 Emulsifiers

INS No.	Additive	Maximum Use Level
472e	Diacetyltartaric and Fatty Acid Esters of Glycerol	10,000 mg/kg
475	Polyglycerol Esters of Fatty Acids	5000 mg/kg
476	Polyglycerol Esters of Interesterified Ricinoleic Acid	4000 mg/kg
432, 433, 434, 435, 436	Polysorbates	10,000 mg/kg (Singly or in combination)
477	Propylene Glycol Esters of Fatty Acids	20,000 mg/kg
491, 492, 493, 494, 495	Sorbitan Esters of Fatty Acids	10,000 mg/kg (Singly or in combination)
481(i), 482(i)	Stearoyl-2-Lactylates	10,000 mg/kg (Singly or in combination)
484	Stearyl Citrate	100 mg/kg (Fat or oil basis)
474	Sucroglycerides	10,000 mg/kg
473	Sucrose Esters of Fatty Acids	10,000 mg/kg
479	Thermally oxidized soya bean oil interacted with mono and diglycerides of fatty acids)	5,000 mg/kg (In fat emulsions for frying or baking purpose, only.)

#### 4.6 Flavours

Natural flavouring substances and artificial flavouring substances

#### 4.7 Preservatives

INS No.	Additive	Maximum Use Level
200, 201, 202, 203	Sorbates	2,000 mg/kg (Singly or in combination (as sorbic acid))
210, 211, 212, 213	Benzoates	1,000 mg/kg (Singly or in combination (as benzoic acid))
If used in combination, the combined use shall not exceed 2000 mg/kg of which the benzoic acid portion shall not exceed 1000 mg/kg		

#### 4.8 Stabilizers and Thickeners

INS No.	Additive	Maximum Use Level
405	Propylene Glycol Alginate	3,000 mg/kg

## CODEX STANDARD FOR NAMED VEGETABLE OILS (CODEX STAN 210-1999)

### 4. FOOD ADDITIVES

4.1 No food additives are permitted in virgin or cold pressed oils.

#### 4.2 Flavours

Natural flavouring and their identical synthetic equivalents, and other synthetic flavours, except those which are known to represent a toxic hazard.

#### 4.3 Antioxidants

INS No.	Additive	Maximum Use Level
304	Ascorbyl palmitate	500 mg/kg ( <del>Singly</del> Individually or in combination)
305	Ascorbyl stearate	
<b>307a</b>	<b><u>Tocopherol, d-alpha-</u></b>	<b>300 mg/kg (<u>Singly or in combination</u>)</b>
<b>307b</b>	<b><u>Tocopherol concentrate, mixed</u></b>	
<b>307c</b>	<b><u>Tocopherol, dl-alpha</u></b>	
306	Mixed tocopherols concentrate	GMP
307	Alpha-tocopherol	GMP
308	Synthetic gamma-tocopherol	GMP
309	Synthetic delta-tocopherol	GMP
310	Propyl gallate	100 mg/kg
319	Tertiary butyl hydroquinone (TBHQ)	120 mg/kg
320	Butylated hydroxyanisole (BHA)	175 mg/kg
321	Butylated hydroxytoluene (BHT)	75 mg/kg
	Any combination of gallates, BHA, BHT, or TBHQ	200 mg/kg but limits above not to be exceeded
389	Dilauryl thiodipropionate	200 mg/kg

#### 4.4 Antioxidant synergists

INS No.	Additive	Maximum Use Level
330	Citric acid	GMP
<del>331</del>	<del>Sodium citrates</del>	<del>GMP</del>
<b>331(i)</b>	<b><u>Sodium dihydrogen citrate</u></b>	GMP
<b>331(iii)</b>	<b><u>Trisodium citrate</u></b>	GMP
384	Isopropyl citrates	100 mg/kg ( <del>Singly</del> Individually or in combination)
<b>472c</b>	<del>Monoglyceride citrate</del> <b><u>Citric and fatty acid esters of glycerol</u></b>	

#### 4.5 Antifoaming Agents (oils for deep frying)

INS No.	Additive	Maximum Use Level
900a	Polydimethylsiloxane	10 mg/kg

## CODEX STANDARD FOR EDIBLE FATS AND OILS NOT COVERED BY INDIVIDUAL STANDARDS (CODEX STAN 19-1981)

### 3. FOOD ADDITIVES

3.1 No additives are permitted in virgin or cold pressed oils covered by this Standard.

#### 3.2 Colours

No colours are permitted in vegetable oils covered by this Standard.

The following colours are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

INS No.	Additive	Maximum Use Level
<b>100(i)</b>	<del>Curcumin or Turmeric</del>	<del>5 mg/kg (calculated as total curcumin)</del>
<del>160a</del>	<del>Beta-carotene</del>	<del>25 mg/kg</del>
<b>160a(ii)</b>	<b><u>Carotenes, Vegetable</u></b>	<b>25 mg/kg</b>

INS No.	Additive	Maximum Use Level
<b>160a(i)</b>	<b>Beta-carotene (synthetic)</b>	<b>25 mg/kg (Singly or in combination)</b>
<b>160a(iii)</b>	<b>beta-Carotene (<i>Blakeslea trispora</i>)</b>	
<b>160e</b>	<b>beta-Apo-8'-Carotenal</b>	
<b>160f</b>	<b>Beta-Apo-8'-Carotenoic Acid, methyl or ethyl ester</b>	
<b>160b(i)</b>	<b>Annatto Extracts, bixin-based</b>	<b>10 mg/kg (as bixin)</b>

### 3.3 Flavours

Natural flavours and their identical synthetic equivalents and other synthetic flavours, except those which are known to represent a toxic hazard.

### 3.4 Antioxidants

INS No.	Additive	Maximum Use Level
304	Ascorbyl Palmitate	500 mg/kg ( <b>Singly</b> Individually or in combination)
305	Ascorbyl Stearate	
<b>307a</b>	<b>Tocopherol, d-alpha-</b>	<b>300 mg/kg (Singly or in combination)</b>
<b>307b</b>	<b>Tocopherol concentrate, mixed</b>	
<b>307c</b>	<b>Tocopherol, dl-alpha</b>	
306	Mixed tocopherols concentrate	GMP
307	Alpha-tocopherol	GMP
308	Synthetic gamma-tocopherol	GMP
309	Synthetic delta-tocopherol	GMP
310	Propyl gallate	100 mg/kg
319	Tertiary butyl hydroquinone (TBHQ)	120 mg/kg
320	Butylated hydroxyanisole (BHA)	175 mg/kg
321	Butylated hydroxytoluene (BHT)	75 mg/kg
Any combination of gallates, BHA, BHT, and/or TBHQ		200 mg/kg but limits above not to be exceeded
389	Dilauryl thiodipropionate	200 mg/kg

### 3.5 Antioxidant synergist

INS No.	Additive	Maximum Use Level
330	Citric acid	GMP
331	Sodium citrates	GMP
<b>331(i)</b>	<b>Sodium dihydrogen citrate</b>	<b>GMP</b>
<b>331(iii)</b>	<b>Trisodium citrate</b>	<b>GMP</b>
384	Isopropyl citrates	100 mg/kg ( <b>Singly</b> Individually or in combination)
472c	Monoglyceride citrate <b>Citric and fatty acid esters of glycerol</b>	

### 3.6 Antifoaming agents (for oils and fats for deep frying)

INS No.	Additive	Maximum Use Level
900a	Polydimethylsiloxane	10 mg/kg

## CODEX STANDARD FOR NAMED ANIMAL FATS (CODEX STAN 211-1999)

### 4. Food Additives

#### 4.1 Colours

The following colours are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

INS No.	Additive	Maximum Use Level
<b>100(i)</b>	<b>Curcumin or Turmeric</b>	<b>5 mg/kg (calculated as total curcumin)</b>
<del>160a</del>	<del>Beta-carotene</del>	<del>25 mg/kg</del>
<b>160a(ii)</b>	<b>Carotenes, Vegetable</b>	<b>25 mg/kg</b>
<b>160a(i)</b>	<b>Beta-carotene (synthetic)</b>	<b>25 mg/kg (Singly or in combination)</b>
<b>160a(iii)</b>	<b>beta-Carotene (<i>Blakeslea trispora</i>)</b>	

INS No.	Additive	Maximum Use Level
<b>160e</b>	<b>beta-Apo-8'-Carotenal</b>	
<b>160f</b>	<b>Beta-Apo-8'-Carotenoic Acid, methyl or ethyl ester</b>	
<b>160b(i)</b>	<b>Annatto extracts, bixin-based</b>	<b>10 mg/kg (as bixin)</b>

#### 4.2 Antioxidants

INS No.	Additive	Maximum Use Level
304	Ascorbyl palmitate	500 mg/kg ( <u>Singly</u> Individually or in combination )
305	Ascorbyl stearate	
<b>307a</b>	<b>Tocopherol, d-alpha-</b>	<b>300 mg/kg (Singly or in combination)</b>
<b>307b</b>	<b>Tocopherol concentrate, mixed</b>	
<b>307c</b>	<b>Tocopherol, dl-alpha</b>	
306	Mixed tocopherols concentrate	GMP
307	Alpha tocopherol	GMP
308	Synthetic gamma tocopherol	GMP
309	Synthetic delta tocopherol	GMP
310	Propyl gallate	100 mg/kg
319	Tertiary butyl hydroquinone (TBHQ)	120 mg/kg
320	Butylated hydroxyanisole (BHA)	175 mg/kg
321	Butylated hydroxytoluene (BHT)	75 mg/kg
Any combination of gallates, BHA, BHT, or TBHQ		200 mg/kg but limits above not to be exceeded

#### 4.3 Antioxidant synergist

INS No.	Additive	Maximum Use Level
330	Citric acid	GMP
<del>331</del>	<del>Sodium citrates</del>	<del>GMP</del>
<b>331(i)</b>	<b>Sodium dihydrogen citrate</b>	<b>GMP</b>
<b>331(iii)</b>	<b>Trisodium citrate</b>	<b>GMP</b>
384	Isopropyl citrates	
<b>472c</b>	<b>Monoglyceride citrate Citric and fatty acid esters of glycerol</b>	100 mg/kg ( <u>Singly</u> Individually or in combination )

### CODEX STANDARD FOR OLIVE OILS AND OLIVE POMACE OILS (CODEX STAN 33-1981)

#### 4. FOOD ADDITIVES

##### 4.1 Virgin olive oils

No additives are permitted in these products.

##### 4.2 Refined olive oil, olive oil, refined olive-pomace oil and olive-pomace oil

The addition of alpha-tocopherols (**d-alpha tocopherol (INS 307a)**; **mixed tocopherol concentrate (INS 307b)**; **dl-alpha-tocopherol (INS 307c)**) to the above products is permitted to restore natural tocopherol lost in the refining process. The concentration of alpha-tocopherol in the final product shall not exceed 200 mg/kg.