



JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS

Thirty-fourth Session

Ålesund, Norway, 19 – 24 October 2015

Report of the in-Session Working Group on Food Additives

The in-session WG was chaired by the European Union. The following delegations participated in its work: Argentina, Brazil, European Union, France, China, India, Japan, Malaysia, Mexico, New Zealand, Nigeria, Norway, South Africa, Spain, Thailand and United States of America.

The in-session working group was tasked to fulfil the following mandate:

Mandate: On the basis of the report CX/FFP 15/34/7 from the electronic working group, review outstanding issues to correct only inconsistencies/inaccuracies in the relevant standards for fish and fishery products and to give recommendations on para 15 and 24 of document CX/FFP 15/34/2 from agenda item 2a.

The in-session working group reviewed the proposals contained in Appendix to CX/FFP 15/34/7 and considered the issues outlined in para 15 and 24 of document CX/FFP 15/34/2 from agenda item 2a. This report summarises the outcomes of the discussion and provides the layout of the recommended revisions of the standards. The Committee is invited to consider the recommendations proposed.

Please note that only the parts of the Sections 4 for which revisions are proposed are outlined in this report (i.e. the report does not contain the complete Sections 4 of the individual standards).

New text of the Section 4 of the standards is presented in **underlined/bold** font and deletion in ~~strike through font~~.

A. Recommendations to correct inconsistencies/inaccuracies in the standards:

Standard for Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh CODEX STAN 165-1989 (GSFA FC 09.2.1)

The in-session WG supported the proposed editorial revisions. As regards INS 304 Ascorbyl palmitate it was considered whether or not the provision should be changed to INS 304, 305 Ascorbyl esters. The in-session WG accepted only the editorial revision of the provision for INS 304 Ascorbyl palmitate as currently listed in the standard and indicated that there is no need for INS 305 Ascorbyl stearate (this recommendation also applies to the standard CS 166-1989).

Recommendation 1: to revise the provisions for INS 304, 410 and 407 as outlined below

304	Ascorbyl palmitate	1000 mg/kg
410	Carob bean (Locust bean) gum	GMP
407	Carrageenan and its Na, K, NH ₄ salts (including Furcelleran)	GMP

Standard for Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets - Breaded or in Batter CODEX STAN 166-1989 (GSFA FC 09.2.2)

The in-session WG supported the editorial revisions of the names of food additives and of the maximum level for INS 304 (to be expressed in mg/kg).

As regards Annatto extracts INS 160b(i) and (ii) the in-session WG agreed that the provisions need to be revised to refer to the use level of 25 mg/kg separately due to the separate individual ADIs (Acceptable Daily Intake) values for Annatto extracts (1) bixin-based and (2) norbixin-based and being consistent with the decision taken by CCFFP30.

As regards INS 160a Carotenes the in-session WG agreed that the individual carotenes INS 160a(i) beta-Carotenes, synthetic; INS 160a(ii) beta-Carotenes, vegetable and INS 160a(iii) beta-Carotenes, *Blakeslea trispora* should be listed in the standard.

As regards modified starches the in-session WG agreed that they should be associated with the functional class “thickeners” and that the general heading “Modified Starches” should be deleted since it is redundant and confusing.

The in-session WG kept the maximum level for Glutamates unchanged (i.e. GMP). The request of one delegation to consider the inclusion of Sodium aluminium phosphate (INS 541) was not considered because out of the mandate of the in-session WG. It should be noted that one delegation expressed its disagreement with the decision of the 33rd Session of the Committee which revoked the provision for INS 541.

Recommendation 2: to revise the provisions as follows - editorial revisions of INS 304, 410, 407, 621, 622, 160e, 465, 471, 1401, 1402, 1412, 1420, 1421 and 1442; to list separately INS 160b(i) and 160b(ii); to list individual carotenes INS 160a(i), (ii), (iii); to list all modified starches listed in the standard under the heading “thickeners”; and to delete the heading “Modified Starches”

Note: it should be noted that the standard has three food additive sub-sections (i.e. (1) food additives permitted in all parts of the product, (2) additional food additives permitted for Minced Fish Flesh Only and (3) food additives for Breaded or Batter Coatings). This should be reflected when incorporating the revisions into the standard (for example some thickeners are listed twice in the standard)

304	Ascorbyl palmitate	1000 mg/kg
Thickeners		
410	Carob bean (Locust bean) gum	GMP
407	Carrageenan and its Na, K, NH ₄ salts (including Furcelleran)	GMP
Modified Starches		
1401	Acid treated starches	GMP
1402	Alkaline treated starches	
1404	Oxidized starches	
1410	Monostarch phosphate	
1412	Distarch phosphate esterified with sodium trimetaphosphate; esterified with phosphorus oxychloride	
1413	Phosphated distarch phosphate	
1414	Acetylated distarch phosphate	
1420	Starch acetate esterified with acetic anhydride	
1421	Starch acetate esterified with vinyl acetate	
1422	Acetylated distarch adipate	
1440	Hydroxypropyl starch	
1442	Hydroxypropyl <u>d</u> istarch phosphate	

621	Monosodium <u>L</u> -glutamate	GMP
622	Monopotassium <u>L</u> -glutamate	
160b(i)	Annatto extracts, <u>bixin</u> -based	25 mg/kg expressed as bixin 25 mg/kg expressed as bixin or norbixin
160b(ii)	Annatto extract, <u>(norbixin)</u> -based	25 mg/kg expressed as norbixin
160a(i)	β-carotene (Synthetic) beta-Carotenes, synthetic	100 mg/kg singly or in Combination
160a(ii)	beta-Carotenes, vegetable	
160a(iii)	beta-Carotenes, Blakeslea trispora	
160e	β-apo-carotenal Beta-Apo-8'-carotenal	
410	Carob bean (Locust bean) gum	GMP
407	Carrageenan and its Na, K, NH ₄ salts (including Furcelleran)	GMP
465	Methyl_ethyl_cellulose	GMP
471	Monoglycerides Mono- and di- glycerides of fatty acids	GMP
1412	Distarch phosphate esterified with sodium trimetaphosphate; esterified with phosphorus oxychloride	GMP
1420	Starch acetate esterified with acetic anhydride	GMP
1421	Starch acetate esterified with vinyl acetate	
1442	Hydroxypropyl d istarch phosphate	GMP

Standard for Salted Atlantic Herring and Salted Sprat CODEX STAN 244-2004 (GSFA FC 09.2.5)

The in-session WG intensely discussed the provision for sorbates with the proposed note “*The use of INS 201 Sodium sorbate is not permitted*”. Several delegations supported the inclusion of such note noting that sodium sorbate should not have been included in the standard since it does not fulfil the requirements for the inclusion (there are no JECFA specifications for that food additive). Other delegation did not support the note and expressed concerns on its possible impact since according to that delegation sodium sorbate is in use and its use is technologically justified. Codex Secretariat clarified that the issue of missing specifications is currently under consideration by the Codex Committee on Food Additives which requested information on the commercial use of that additive. Based on the data received the additive will be either removed from the Codex Standards or included in the JECFA priority list.

As a matter of compromise the in-session WG agreed to keep the note and ask the CCFA to provide advice on the retention of the note in the light of the outcome of the consideration of sodium sorbate.

The in-session WG agreed to other revisions proposed in CX/FFP 15/34/7 (INS 300 Ascorbic acid and INS 330 Citric acid to be associated with the functional class “antioxidants” in addition to “acidity regulators” and the change of the functional class for sorbates from “antioxidants” to “preservatives”).

Recommendation 3: to forward the issue related to Sodium sorbate to the CCFA; to revise the provisions as outlined below

Acidity Regulators, antioxidants		
INS Number	Additive Name	Maximum Level in Product
300	Ascorbic acid	GMP
330	Citric acid	GMP
Antioxidants		

200-203	Sorbates	200 mg/kg (expressed as sorbic acid)
Preservatives		
210-213	Benzoates	200 mg/kg (expressed as benzoic acid), <u>singly or in combination</u>
<u>200-203</u>	<u>Sorbates</u>	<u>200 mg/kg as sorbic acid, singly or in combination</u>

***The use of INS 201 Sodium sorbate is not permitted**

Standard for Salted Fish and Dried Salted Fish of the Gadidae Family of Fishes CODEX STAN 167-1989 (GSFA FC 09.2.5)

The issue of Sodium sorbate is related to CS 167-1989 as well. The in-session WG agreed to apply the same approach as discussed for CS 244-2004.

Recommendation 4: to forward the issue related to Sodium sorbate to the CCFA; to revise the provisions as outlined below

Preservatives		
INS Number	Additive Name	Maximum Level in Product
200 <u>200-203</u>	Sorbic acid <u>Sorbates</u>	200 mg/kg –expressed as sorbic acid, singly or in combination
201	Sodium sorbate	
202	Potassium sorbate	

***The use of INS 201 Sodium sorbate is not permitted**

Standard for Crackers from Marine and Freshwater Fish, Crustaceans and Molluscan Shellfish CODEX STAN 222-2001 (GSFA FC 09.2.5)

The in-session WG agreed with the revisions as proposed in CX/FFP 15/34/7.

Recommendation 5: to revise the provisions for INS 452 and 621 as outlined below

Sequestrants		
INS Number	Additive Name	Maximum Level in Product
452(i)	Polyphosphates <u>Sodium polyphosphate</u>	<u>2200 mg/kg as phosphorus, 5 g/kg expressed as P₂O₅, singly or in combination</u>
452(ii)	<u>Potassium polyphosphate</u>	
452(iii)	<u>Sodium calcium polyphosphate</u>	
452(iv)	<u>Calcium polyphosphate</u>	
452(v)	<u>Ammonium polyphosphate</u>	
Flavour enhancers		
621	Monosodium <u>L</u> -glutamate	Limited by GMP

Standard for Canned Shrimps or Prawns CODEX STAN 37-1981 (GSFA FC 09.4)

The in-session WG agreed with the revisions proposed in CX/FFP 15/34/7.

Recommendation 6: to revise the provisions as outlined below

124	Ponceau 4R (<u>Cochineal red A</u>)	

385-386	Calcium disodium EDTA Ethylene diamine tetra acetates	250 mg/kg as anhydrous calcium disodium ethylenediaminetetraacetate*
338	Orthophosphoric Phosphoric acid	850 mg/kg 540 mg/kg as phosphorus

* The note “as anhydrous calcium disodium ethylenediaminetetraacetate” was not captured in CX/FFP 15/34/7 and it was not discussed in the in-session WG. However, it should be included to clarify the basis on which the maximum level is expressed taking into account the support of the in-session WG to the proposed revisions.

Standard for Canned Tuna and Bonito CODEX STAN 70-1981 (GSFA FC 09.4)

The in-session WG agreed with the revisions of the functional class (thickeners) and the names of additives as outlined in CX/FFP 15/34/7.

As regards the use of natural flavours, which are currently listed within the food additive provisions, the in-session WG considered that the new wording proposed in CX/FFP 15/34/7 should be revised as follows:

“Natural flavouring substances and smoke flavourings are permitted in products covered by this standard.”

The in-session WG did not support the inclusion of the second sentence “*The flavourings used in products covered by this standard should comply with the Guidelines for the use of flavourings (CAC/GL 66-2008)*” due to concerns that such wording might implicate that all flavourings (not only natural) would be permitted for use in foods falling under the standard.

The provision for INS 450(i) Disodium diphosphate was addressed when the standard CS 90-1981 was discussed (see below). Since no consensus was found no revisions (apart from the editorial ones to express the maximum level as phosphorus) were proposed.

Recommendation 7: *to revise the functional class (thickeners) and the names of additives; to replace the provisions for natural flavours with the text referring to them; to progress only with the editorial revisions for INS 450(i)*

Thickening Thickeners <u>or and</u> Gelling Agents (for use in packing media only)		
407	Carrageenan and its Na, K, and NH4 salts (including furcelleran	
466	Sodium carboxymethyl cellulose (cellulose gum)	
1401	Acid treated starches (including white and yellow dextrins)	GMP
1402	Alkaline treated starches	
1412	Distarch phosphate esterified	
1420/4424	Starch acetate	
1442	Hydroxypropyl di starch phosphate	
260	Acetic acid, glacial	
Natural Flavours		
Spice oils		GMP
Spice extracts		
Smoke flavours (Natural smoke solutions and extracts)		
Acidity Regulators		

450(i)	Disodium diphosphate	10 mg/kg expressed as P ₂ O ₅ , <u>5 mg/kg as phosphorus</u> (includes natural phosphate)
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Natural flavouring substances and smoke flavourings are permitted in products covered by this standard.

Standard for Canned Crab Meat CODEX STAN 90-1981 (GSFA FC 09.4)

The in-session WG discussed the need for the use of INS 338 Phosphoric acid and INS 450(i) Disodium diphosphate, what would be the appropriate use level and the functional class. It was noted that the discussion was relevant also for the standards CS 70-1981 and CS 37-1981.

Divergent views were expressed by the delegations. One delegation questioned the need for the mentioned additives whilst other delegations supported different use levels. No agreement was found on the appropriate functional class even if some comments were provided as regards the technological need and the efficacy of the mentioned additives to pursue different technological functions (i.e. acidity regulators, humectants and sequestrants). In the lack of consensus the in-session WG was not in the position to formulate any recommendation on this issue, therefore, only editorial changes of the mentioned provisions were considered.

Recommendation 8: to revise the provisions as outlined below

Acidity Regulators		
INS Number	Additive Name	Maximum Level in Product
330	Citric acid	GMP
338	Orthophosphoric Phosphoric acid	10 mg/kg expressed as P ₂ O ₅ , <u>5 mg/kg as phosphorus</u> , singly or in combination (includes natural phosphate)
450(i)	Disodium diphosphate	
Sequestrants		
385-386	Calcium disodium EDTA Ethylene diamine tetra acetates	250 mg/kg as anhydrous calcium disodium ethylenediaminetetraacetate
Flavour enhancers		
621	Monosodium L -glutamate	GMP

Standard for Canned Sardines and Sardine-Type Products CODEX STAN 94-1981 (GSFA FC 09.4)

The in-session WG supported the editorial revisions as proposed in CX/FFP 15/34/7.

As regards the use of natural flavours the same conclusion was reached as for CS 70-1981.

Recommendation 9: to revise the provisions as outlined below

Thickening Thickeners or and Gelling Agents (for use in packing media only)		
407	Carrageenan and its Na, K, and NH₄ salts (including furcelleran	
466	Sodium carboxymethyl cellulose (cellulose gum)	
1401	Acid treated starches	
1402	Alkaline treated starches	
1412	Distarch phosphate esterified with sodium trimetaphosphate; esterified with phosphorus oxychloride	
		GMP

1442	Hydroxypropyl <u>distarch phosphate</u>	
260	Acetic acid, <u>glacial</u>	GMP
Natural Flavours		
Spice oils		
Spice extracts		
Smoke flavours (Natural smoke solutions and extracts)		

Natural flavouring substances and smoke flavourings are permitted in products covered by this standard.

Standard for Canned Finfish CODEX STAN 119-1981 (GSFA FC 09.4)

The in-session WG supported the editorial revisions as proposed in CX/FFP 15/34/7.

As regards the use of natural flavours the same conclusion was reached as for CS 70-1981.

Recommendation 10: to revise the provisions as outlined below

Thickening-Thickeners or and Gelling Agents (for use in packing media only)		
407	Carrageenan and its Na, K, and NH ₄ salts (including furcelleran)	
466	Sodium carboxymethyl cellulose (<u>cellulose gum</u>)	
1401	Acid treated starches (including white and yellow dextrins)	GMP
1402	Alkaline treated starches	
1412	Distarch phosphate esterified	
1420/1421	Starch acetate	
1442	Hydroxypropyl <u>distarch phosphate</u>	
260	Acetic acid, <u>glacial</u>	GMP
Natural Flavours		
Spice oils		
Spice extracts		
Smoke flavours (Natural smoke solutions and extracts)		

Natural flavouring substances and smoke flavourings are permitted in products covered by this standard.

B. Recommendations to address para 15 and 24 of document CX/FFP 15/34/2 from agenda item 2a

Para 15 of CX/FFP 15/34/2

Codex Secretariat clarified that the level of 400 mg/kg as phosphorus (i.e. note 299 of the GSFA) was incorrectly included due to the error in the report of the CCFA46.

Recommendation 11: the in-session WG recommended to request the CCFA to revise the note to appropriately reflect the maximum level for phosphates as laid down in CS 166-1989 (i.e. 440 mg/kg as phosphorus).

Para 24 of CX/FFP 15/34/2

The in-session WG discussed whether INS 342 (i), (ii) Ammonium phosphates and INS 343 (i) – (iii) Magnesium phosphates have a function of humectants or sequestrants when used in accordance with the Standard for Fresh and Quick Frozen Raw Scallop Products (CS 315-2014) - i.e. the function which is not recognised for those additives in CAC/GL 36/1989.

During the discussion two possible alternatives were mentioned: (1) to recognise based on the technical arguments that INS 342 and INS 343 could act as humectants or sequestrants or (2) to recognise that whilst phosphates used in accordance with the standard act mainly as humectants or sequestrants the mentioned phosphates perform the function of acidity regulators (function recognised for those additives in CAC/GL 36/1989) facilitating the function of other permitted phosphates to act as humectants or sequestrants. The latter option was supported by several delegations. Another delegation considered that the mentioned phosphates act as stabilizers.

Recommendation 12: based on the discussion of the in-session WG the Committee should consider associating the functional class “acidity regulators” and / or “stabilisers” with INS 342 and INS 343 in the standard CS 315-2014.

*Humectant / Sequestrant / **Acidity Regulator ??? / Stabilizer ???***

INS	Additive name	Maximum Level
338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i),(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii); 451(i),(ii); 452(i)-(v); 542	Phosphates	2200 mg/kg as phosphorus