

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS****Thirty-third Session
Bergen, Norway
17 – 21 February 2014****PROPOSED FOOD ADDITIVE PROVISIONS IN STANDARDS FOR FISH AND FISHERY
PRODUCTS****(Food Additive Provisions in Adopted Standards)***Prepared by the Electronic Working Group led by the United States of America and the European Union*

At its 32nd Session the Codex Committee on Fish and Fishery Products (CCFFP) agreed to continue work on the consideration of food additives provisions in current standards for fish and fishery products. The Committee agreed to establish an electronic Working Group, working in English only and chaired by the European Union and the United States of America to prepare proposals for food additives in the standards for fish and fishery products following the approach taken for the Standard for Smoked Fish and to focus on technological justification for those food additives, and if necessary, propose changes to the GSFA¹.

Background

The CCFFP has the responsibility and expertise to appraise and justify the technological need for the use of additives in foods subject to commodity standards. The information given by the CCFFP may also be taken into account by the Codex Committee on Food Additives (CCFA) when considering food additive provisions in similar non-standardized foods². All provisions in respect of food additives contained in commodity standards require endorsement by the CCFA, on the basis of technological justification submitted by the CCFFP and on the recommendations of the Joint FAO/WHO Expert Committee on Food Additives concerning the safety-in-use (acceptable daily intake (ADI) and other restrictions) and an estimate of the potential and, where possible, the actual intake of the food additives, ensuring conformity with the Preamble of the GSFA³. The General Standard for Food Additives (GSFA), which is under development, should be a single reference point for food additives.

The in-session Working Group⁴ established at the 31st session of the CCFFP, reviewed the additive provisions in the adopted standards taking into consideration the related provisions listed in the GSFA. The working group concluded that the provisions in the standards were developed carefully and still satisfactory, and proposed to transfer all provisions to the GSFA following a final call for proposed changes/corrections to the existing additive provisions.

The additive provisions in adopted standards are the result of good work and careful decisions by the CCFFP. They have been endorsed by the CCFA, and have proven satisfactory with history of use and infrequent need for revision. CCFFP should conduct a final careful review of the provisions before they are incorporated into the GSFA in order to minimize the need for future changes to the GSFA related to fish and fishery product standards. Any proposal for a change should be accompanied with an appropriate technological justification.

It is worthwhile noting that the GSFA includes some food additive provisions for fish and fishery products that have been developed by the CCFA for “non-standardized” fishery products. Several of these provisions are inconsistent with the additives allowed in standardized products. The completion of the current review, followed by the incorporation of the already adopted provisions, as well the proposed amendments into the

¹ REP13/FFP, paras. 142-143.

² See Codex General Standard for Food Additives, CS 192-1995, Section 1.2

³ See Procedural Manual, 20th edition, p.45.

⁴ [FFP/31 CRD 30, Report of the in-Session Working Group on Food Additives](#)

GSFA, would correct these discrepancies. Once the ongoing alignment procedure is completed by the CCFA, all the adopted standards should be reviewed with the aim to include general references to the GSFA. In order to ensure that references to the GSFA are maintained any proposals to include new provisions in the GSFA that may have an impact on the standards for fish and fishery products, should be referred to CCFFP before endorsement by the CCFA.

The Electronic Working Group

In response to the invitation to participate in the electronic Working Group (e-WG) twenty Codex Members and three Observers expressed their interest⁵. Comments were received from Canada, China, the European Union, France, Malaysia, Norway, Spain, the United States of America, CEFIC, IFAC and MARINALG INT.

Two rounds of consultations were made. In the first round the eWG members were asked to provide their proposals for including new additive provisions, removing already adopted additives provisions, and amending maximum levels, for the adopted standards taking into consideration also additives listed in related food categories in the GSFA. A technological justification was requested for all proposed changes.

In reply to the first consultation the proposals for changes were received for fourteen standards. No changes were requested for the remaining seven standards for fish and fishery products. It has to be noted that the vast majority of the proposals were submitted by the observers requesting the use of Phosphates (INS 338-542), Alginates (INS 400-404) and Carrageenan (INS 407) in the majority of the standards.

In addition to proposals for changes of individual food additive provisions, some other issues were raised by the eWG members. These included:

- Proposal to fully align the fish and fishery product additive provisions listed in the GSFA and the additives allowed in standardized products, in order to tackle the existing inconsistencies. Also changes to the food additive provisions in the GSFA were proposed.
- Proposal for a systematic review of inconsistencies/inaccuracies in all standards for fish and fishery products (i.e. inconsistencies in food additive names and subscripts, review of proper use of functional classes, association of food additives with correct functional classes, consideration of a group of additives if only a few food additives from a group are listed, revision of the layout, inclusion of the Guidelines for the Use of Flavourings if a food additive listed in a standard does not have any function in the final product but in flavourings, consistency of the basis on which the maximum use level is expressed with the GSFA etc.)
- Proposal to consider use of antioxidants listed in the GSFA Table 3 (i.e. Ascorbic acid, L- (300), Calcium ascorbate (302), Citric acid (330), Citric and fatty acid esters of glycerol (472c), Erythorbic Acid (Isoascorbic acid) (315), Glucose oxidase (1102), Lecithin (322(i)), Nitrous oxide (942), Potassium ascorbate (303), Potassium lactate (326), Sodium ascorbate (301), Sodium erythorbate (316) and Sodium lactate (325)) with regard to the technological justification in *Standard for Live and Raw Bivalve Molluscs* (CODEX STAN 292-2008).
- Proposal to re-consider the use of acidity regulators in the products covered by the *Standard for Sturgeon Caviar* (CODEX STAN 291-2010) since the provisions for these additives might be too wide and not necessary (the standard permits all acidity regulators listed in Table 3 of the GSFA).
- Proposal to revise the provision for sodium aluminium phosphate (INS 541) in the *Standard for quick frozen fish sticks (fish fingers), fish portions and fish filets breaded or in batter* (CODEX STAN 166-1989) on an aluminium basis based on the recommendation made by the 45th CCFA meeting⁶ in the view of the revised JECFA PTWI in order to decrease the exposure to aluminium.

In the second round of consultation the eWG members who submitted the proposals were asked to complete the information provided, when some information was missing (e.g. information on technological justification, functional class etc.). All eWG members were invited to provide comments on the individual

⁵ Members of eWG: Argentina, Canada, China, the European Union, France, India, Indonesia, Ireland, Japan, Kenya, Malaysia, Mauritius, Morocco, New Zealand, Norway, Philippines, Poland, Spain, Thailand, the United States of America, CEFIC, IFAC and MARINALG INT.

⁶ REP13/FA, para. 96.

proposals. Other issues raised were summarised and the eWG members were asked to provide their feedback on them as well.

Discussion and recommendations

Proposed food additive provisions

The proposals for changes of food additive provisions were considered by the e-WG members. Two appendices are attached to this document. Appendix I contains the provisions which were supported by at least one Codex member and provisions for which further discussion is needed. Appendix II contains proposals not supported.

It should be noted that one eWG member proposed to revise the naming sections of the standards allowing phosphates to cover products with added water resulting from addition of phosphates in solution explaining that it is impossible to soak, spray or inject fish with phosphate solutions without the product also taking in and retaining some added water. This eWG member recommended that the amount of added water should be labelled in order not to mislead the consumer and that the revisions of other sections of standards related to additives should be considered.

Recommendation 1:

The Committee is invited to consider the proposals contained in Appendix I.

Appendix II is enclosed for information purposes.

Inconsistencies between the GSFA food additive provisions and the provisions in the standards

The members of the eWG acknowledged the opportunity to revisit food additive provisions in the standards. When considering the GSFA food additive provisions in the corresponding food categories it was pointed out that large discrepancies between the GSFA and the fish commodity standards exist. A reference was made to the alignment and harmonisation efforts carried out by the CCFA which could be taken into account when commenting upon existing food additives in the standards.

As regards the proposal for the full alignment/integration of the fish and fishery product additive provisions listed in the GSFA and the additives allowed in standardized products it was not within the mandate and capacities of the eWG to carry out such exercise. Also the proposed changes to food additive provisions included in the GSFA were disregarded. Instead, in accordance with the eWG mandate, the specific requests for corrections/changes to the adopted standards were considered.

It was pointed out that it is more appropriate to keep additive provisions in the standards since general references to the GSFA are not currently possible due to the fact that the GSFA has not been finalized yet and changes may be expected in the next years.

The current work of the CCFA regarding the use of Table 3 additives in the food categories included in the Annex to Table 3 was mentioned as well in the comments. The use of food additives in the categories listed in the Annex to Table 3 is generally more restrictive and thirteen of the CCFFP standards belong to either the GSFA food category 9.1 Fresh fish and fish products, including molluscs, crustaceans and echinoderms or 9.2 Processed fish and fish products, including molluscs, crustaceans and echinoderms. It was pointed out that also the CCFFP could consider the use of Table 3 additives in the standardised products to work in parallel with the CCFA. In this respect a clear technological justification should be provided. Furthermore, if a systematic review of inconsistencies in the standards is supported by the CCFFP (see below) then the Committee could further consider also the use of Table 3 additives in standardised products. In such case the CCFFP may ask the CCFA to postpone any work on the additive provisions related to the GSFA category 9.1 and 9.2 and to refer the proposed provisions to the CCFFP to appraise and justify the technological need in accordance with the Section 1.2 of the GSFA Preamble in order to avoid further inconsistencies between the GSFA and the standards for fish and fishery products.

Systematic review of inconsistencies in the standards

The eWG members who expressed the view on this issue supported a systematic review of inconsistencies/inaccuracies in all standards following a step-wise approach.

Recommendation 2:

The Committee is invited to consider whether a systemic review of inconsistencies/inaccuracies should be carried out following a step-wise approach.

Use of antioxidants listed in the GSFA Table 3 in the Standard for Live and Raw Bivalve Molluscs (CS 292-2008)

The proposal to consider the use of antioxidants listed in the Table 3 of the GSFA was raised to appraise the need for antioxidants not only in CODEX STAN 292-2008 but consequently also in the cross-referred food categories of the GSFA – i.e. 9.1.2 Fresh molluscs, crustaceans, and echinoderms and 9.2.1 Frozen fish, fish fillets, and fish products, including molluscs, crustaceans, and echinoderms which will be considered at the 46th CCFA meeting.

No specific comments justifying the need for antioxidants were received. However, it was indicated that whilst the PART I of CODEX STAN 292-2008 refers to live bivalve molluscs in which no additives are permitted (corresponds to the GSFA food category 09.1.2) PART II refers to raw bivalve molluscs (food category 09.1.2 and 09.2.1.) and antioxidants listed in the category 09.1.2 are permitted for chilled shucked molluscs and antioxidants listed in the category 09.2.1 are permitted for raw frozen molluscs. As regards Table 3 antioxidants it should be noted that Ascorbic acid (INS 300) and Ascorbates (INS 301-303) are the most common Table 3 antioxidants permitted in other fish standards falling under the food category 09.1.2 and 09.2.1.

Use of acidity regulators in the Standard for Sturgeon Caviar (CS 291-2010)

One member of the eWG clarified that it permits only Citric acid (INS 330) and Sodium citrates (INS 331) in prepared fish (which includes caviar/roe) as pH-adjusting, acid-reacting or water-correcting agents, at maximum levels of use consistent with GMP, however, that it does not suggest that the acidity regulators listed in Table 3 of the GSFA that are permitted for use in sturgeon caviar under conditions of GMP are not effective as acidity regulators. Another eWG member was not in favour of revising all the acidity regulators provisions at least at this stage given the implications that unnecessary restrictions could have in the industry. In light of these comments no recommendation as regards the use of acidity regulators in the standard was made.

Revision of the use of Sodium aluminium phosphate (INS 541) in the Standard for quick frozen fish sticks (fish fingers), fish portions and fish filets breaded or in batter (CS 166-1989)⁷

Two proposals for the revision of the use of Sodium aluminium phosphate (INS 541) were received. The first proposal requested the MPL of 1000 mg/kg expressed as aluminium which would in fact lead to a higher maximum level for aluminium than is the current provision. The second proposal requested the level of 190 mg/kg expressed as aluminium which according to the eWG member submitting the proposal would correspond to the current MPL if it was expressed as aluminium.

The majority of the members of the eWG were of the view that in order to reduce the exposure to aluminium the provision for INS 541 can be removed from the standard. It was stressed that there are alternatives (i.e. other raising agents in the standard) and that in fact only the basic form of Sodium aluminium phosphate (INS 541(i)) is used as a raising agent. Other eWG member supported efforts to establish maximum levels of use of additives that are consistent with the lowest level necessary to achieve the intended technical effect without providing the details on what such level would be.

Recommendation 3:

The Committee is invited to consider the revision of the use of Sodium aluminium phosphate (INS 541) either revoking the provision or expressing the maximum level as aluminium.

⁷ At the 45th session the CCFA committee considered the recommendations for provisions for aluminium containing food additives aiming at reducing the use of aluminium containing food additives based on the recommendation of the 67th JECFA meeting. The CCFA recommended for adoption the use of Sodium aluminium phosphates (INS 541) in the GSFA food category 06.6 Batters at 1000 mg/kg expressed as aluminium. In considering the alignment of this provision with the provision on Sodium aluminium phosphate (INS 541) in the Standard for quick frozen fish sticks (fish fingers), fish portions and fish filets breaded or in batter (CS 166-1989) it was realised that the alignment would result in a higher maximum level for aluminium than the current provision in the commodity standard which was expressed as phosphate (currently the standards CS 166-1989 permits the use of Sodium aluminium phosphate, basic and acidic (INS 541) at 1g/kg expressed as P₂O₅). Therefore, the CCFA recommended CCFPP to recalculate the provision on an aluminium basis, in line with its previous recommendation that all maximum use levels of aluminium containing food additives should be numerical and expressed on an aluminium basis.

Appendices

This part of the paper reflects the specific proposals submitted by the eWG members. Not all information as requested in the call for comments was provided for each proposal. Therefore, the members of the eWG were asked to submit the missing information. A few new proposals were received in the second round of consultation, therefore, the eWG members could not express their view and the column “comment” is empty for these new proposals, however, they were also included in Appendix I that the Committee can express its view on them. Moreover, two proposals related to Sodium aluminium phosphate (INS 541) were included in Appendix I in order to follow up the request made by the CCFA.

For better understanding the eWG co-chairs recommend that the eWG members compare the proposed provisions with the existing list of the food additives in the relevant commodity standard.

Appendix I – provisions proposed for further consideration by the Committee

Standard for Quick Frozen Finfish, Eviscerated or Uneviscerated (36-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level (mg/kg)	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request 339(i) Monosodium orthophosphate 340(i) Monopotassium orthophosphate 450(iii) Tetrasodium diphosphate 450(v) Tetrapotassium diphosphate 451(i) Pentasodium triphosphate 451(ii) Pentapotassium	-	5.000 expressed as P ₂ O ₅ singly or in combination eWG chair note: phosphates should be expressed as P – it would correspond to app. 2.200 as P	Humectants Cefic: Add also the functional class Stabiliser IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates		Malaysia: to be used as humectants to prevent excessive loss of water from small frozen finfish as tilapia and sardinella	EU: the EU would not object to the use of phosphates in frozen fish fillets at the level proposed (2.200 as P), however, the EU would like to ask for a clarification about the use/need for phosphates in a whole fish? Cefic: The standard applies to fish with or without head and fully or partly removed organs, an application of any additives is technically only possible to fish with head.off and removed organs. In case the fish is further processed (filleted, cut, ...) after freezing, the phosphate treatment can be done before freezing, which is desirable in order to prevent thawing losses which happen later. The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA. Marinalg: Functional class should be “Stabilizer”. Currently used in a number of countries in Asia Protects the product from freeze burn by coating the surface. Assists in the stabilization of the water-holding capacity in combination with pH regulators like phosphate, citrate, carbonate. Thus drip losses are reduced and dehydration of the fish muscle leading to

triphosphate 452(i) Sodium polyphosphate 452(iv) Calcium polyphosphate			activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.		a tough and stringy structure is prevented. Norway: We support phosphate at 2.200 mg/kg expressed as P Spain: We agree with the proposed additives for these products for consistency with other frozen fish products included in FC 9.2.1 in the GSFA at a level of 2200 mg/kg as P. USA: Do not support, or should include revision of the naming section and other applicable sections of the Standard. Reason: Water retention agents were certainly considered during the drafting of the Standard, however only antioxidants were allowed. Justification is lacking for allowing phosphates in frozen eviscerated or uneviscerated fish. Drip loss is minimal in whole fish due to the presence of the outer protective skin, and the membranes lining the abdominal cavity. For the same reason it is difficult to add phosphate solutions without extensive soaking or injection. Small whole fish may have greater drip loss than large fish (e.g., may be piled deeply with inadequate cooling), and it is beneficial to use phosphate solutions to restore drip loss in poorly handled small fish prior to freezing. The application of phosphate solutions to restore and/or retain moisture requires added water that must be properly labelled.
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Codex General Standard for Quick Frozen Fish Fillets (CS 190-1995)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
Correction Phosphates listed in the standard	-	10g/kg as P ₂ O ₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in	Moisture/Water Retention Agents to be corrected to Humectants Cefic: Add also	Cefic: Category 09.2.1: PHOSPHATES @ 2200 mg/kg (Note 33)	Norway: 1. For consistency with the GSFA proposed to express phosphates as P; 2. Functional class "Moisture/Water	EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg (without any note referring to natural phosphate) Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is

		<p>combination (includes natural phosphate)</p>	<p>the functional class Stabiliser</p> <p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.</p>		<p>Retention Agents" should be corrected to "Humectants"</p>	<p>additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA</p> <p>France: agrees with SP, the level of P is too high.</p> <p>The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We propose phosphate at 2.200 mg/kg expressed as P, singly or in combination. No reference to natural phosphates as the content in different species varies.</p> <p>Spain: This level is much higher than 2200 mg/kg as P, used for other similar products.</p> <p>Maybe a revision of phosphates maximum levels could be included in a future systematic review.</p> <p>USA: Support. To be exactly equivalent the level should be 4,364 mg/kg as phosphorous; should include revision of the naming section and other applicable sections of the Standard.</p> <p>This comment applies to this proposal for other standards.</p> <p>Country proposal to change functional class name: Do not change, or change to “Humectant - Moisture/Water Retention Agent”.</p> <p>Reason: “Moisture/water retention agent” is listed in the GSFA as a functional subclass of “humectant”, and when appropriate, a commodity standard may more narrowly specify how an additive is used rather than list the broad GSFA functional class. Phosphates have a varied history of use in seafood and extra care should be taken to not mislead the consumer when listing the function of phosphates on seafood packaging. The functional class name for phosphates was discussed over</p>
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						<p>several CCFFP sessions. The Committee agreed that the name ‘Moisture/Water Retention Agent’, proposed by CCFAC, should be used because this name was easily understood by consumers. “Humectant” is a broader, less well understood and less descriptive term.</p> <p>This comment applies to this proposal for other standards.</p>
<p>New request/correction</p> <p>Phosphates listed in the standard + 451(ii) Pentapotassium triphosphate + 452(i) Sodium polyphosphate</p>		<p>PHOSPHATES (whole group)@2500 mg/kg (as P in addition to natural content; excluding natural phosphates since there are species with more than 4000 mg/kg naturally) (or @5800 mg/kg as P2O5)</p>	<p>Humectants</p> <p>Cefic: Add also the functional class Stabiliser</p> <p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are</p>		<p>CEFIC: new proposed use level; whole group phosphates; Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg (without any note referring to natural phosphate)</p> <p>Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA.</p> <p>France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We support the new request, as these do act as humectants</p> <p>But keep ML at 2.200 mg/kg expressed as P as the others due to difficulties to differentiate between the different phosphates</p> <p>Spain: We agree with the inclusion of 451(ii) and 452 (i) for these products for consistency with other frozen fish products included in FC 9.2.1 in the GSFA at a level of 2200 mg/kg as P.</p> <p>USA: Additive industry proposal to increase the phosphate maximum level to 2,500 mg/kg phosphorous in addition to natural content: Do not support</p>

			reduced and dehydration of the fish muscle leading to a toughening is prevented.			<p>Reason: This proposal essentially raises the maximum phosphorous level from 4,364 mg/kg to 6,500 mg/kg (2,500 mg/kg added + 4,000 mg/kg max. natural) because the natural phosphate content of different fish species has not been established under Codex. Undesirable flavors develop at about 0.5% added phosphate (PO₄) by weight (1,631 mg/kg phosphorous). If certain species have very high natural phosphate and need as much as 2,500 mg/kg added phosphorous, then this data should be presented and allowances for these species could be considered. Presumably the variation in natural phosphate levels in different species was considered in establishing the current limit that includes natural phosphates. This proposal, like nitrogen levels, would require maintaining a list of agreed natural phosphate levels for different species.</p> <p>Note that different added phosphates always convert to orthophosphate, which is the natural form, so natural and added phosphates cannot be differentiated in the fish.</p> <p>This comment applies to similar additive industry proposals for other standards.</p>
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Standard for Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh (CS 165-1989)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
Correction 339(i) Monosodium orthophosphate 340(i) Monopotassium orthophosphate 450(iii) Tetrasodium	-	10g/kg as P ₂ O ₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in combination (includes natural phosphate)	Moisture/Water Retention Agents to be corrected to Humectants Cefic: Add also the functional class Stabiliser IFAC: add	Cefic: Category 09.2.1: PHOSPHATES @ 2200 mg/kg (Note 33)	Norway: 1. For consistency with the GSFA proposed to express phosphates as P; 2. Functional class "Moisture/Water Retention Agents" should be corrected to "Humectants"	EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency

<p>diphosphate 450(v) Tetrapotassium diphosphate 451(i) Pentasodium triphosphate 451(ii) Pentapotassium triphosphate 452(i) Sodium polyphosphate 452(v) Calcium polyphosphates</p>			<p>function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.</p>			<p>with the GSFA. France: agrees with SP, the level of P is too high. The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: We propose phosphate at 2.200 mg/kg expressed as P, singly or in combination. No reference to natural phosphates as the content in different species varies. Spain: This level is much higher than 2200 mg/kg as P, used for other similar products. Maybe a revision of phosphates maximum levels could be included in a future systematic review. USA: see relevant comments on CS 190-1995</p>
<p>New request/correction Phosphates listed in the standard + 451(ii) Pentapotassium triphosphate + 452(i) Sodium</p>		<p>PHOSPHATES (whole group)@2500 mg/kg (as P in addition to natural content; excluding natural phosphates since</p>	<p>Humectants Cefic: Add also the functional class Stabiliser IFAC: add function “stabiliser” - phosphates</p>	<p>Cefic: Category 09.2.1: PHOSPHATES @ 2200 mg/kg (Note 33)</p>	<p>CEFIC: new proposed use level; whole group phosphates; Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not</p>

polyphosphate		there are species with more than 4000 mg/kg naturally) (or @5800 mg/kg as P2O5)	stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.		therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.	individual species of PHOSPHATES for consistency with the GSFA France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: We support the new request, as these do act as humectants But keep ML at 2.200 mg/kg expressed as P as the others due to difficulties to differentiate between the different phosphates Spain: We agree with the inclusion of 451(ii) and 452 (i) for these products for consistency with other frozen fish products included in FC 9.2.1 in the GSFA at a level of 2200 mg/kg as P. USA: see relevant comments on CS 190-1995
New request 400 Alginic acid 401 Sodium alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium		GMP	eWG chair: functional class to be added		Marinalg: to protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression	EU: whilst the EU recognises a potential technological need for alginates in certain processed products, the EU does not support their use in unprocessed products. There should not be any freeze-thaw cycles with an impact on structure changes. The use of additives should not mislead the consumer as for fish freshness and good manufacturing practices. France: In minced fish filets, these additives have a texturing effect.

<p>alginate 407 Carrageenan 407a Processed Euchema Seaweed (PES)</p>						<p>Marinalg: Functional class should be “Stabilizer”. Currently used in a number of countries in Asia Protects the product from freeze burn by coating the surface. Assists in the stabilization of the water-holding capacity in combination with pH regulators like phosphate, citrate, carbonate. . Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented. Provides easier handling of the fish blocks after de-freezing Norway: We do not support the use of alginate as emulsifier, stabilizers and thickeners in CS which correspond to subcategory 9.2.1 Frozen fish, fish fillets ... The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefore mislead the consumer The justification provided is for battered products, therefore the corresponding provisions should be discussed in CS which correspond to subcategory 9.2.2 Spain: More information about the technological need would be needed. Are these FAs used as carriers for other food additive in preparations? USA: see relevant comments on CS 190-1995</p>
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Standard for Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets - Breaded or in Batter (CS 166-1989)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
For Fish Fillets and Minced Fish Flesh Only						
<p>Correction</p> <p>Phosphates listed in the standard</p>		<p>10g/kg as P₂O₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in combination (includes natural phosphate)</p>	<p>Moisture/Water Retention Agents to be corrected to Humectants</p> <p>Cefic: Add also the functional class Stabiliser</p> <p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus,</p>		<p>Spain</p>	<p>EU: the EU can support the correction - the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>France: agrees with SP, the level of P is too high.</p> <p>The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We propose phosphate at 2.200 mg/kg expressed as P, singly or in combination. No reference to natural phosphates as the content in different species varies.</p> <p>Spain: This level is much higher than 2200 mg/kg as P, used for other similar products.</p> <p>Maybe a revision of phosphates maximum levels could be included in a future systematic review.</p> <p>USA: see relevant comments on CS 190-1995</p>

			drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.			
<p>New request/correction</p> <p>Phosphates listed in the standard + 451(ii) Pentapotassium triphosphate + 452(i) Sodium polyphosphate</p>		<p>PHOSPHATES (whole group)@2500 mg/kg (as P in addition to natural content; excluding natural phosphates since there are species with more than 4000 mg/kg naturally) (or @5800 mg/kg as P2O5)</p>	<p>Humectants</p> <p>Cefic: Add also the functional class Stabiliser</p> <p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of</p>	<p>Cefic: Category 09.2.1: PHOSPHATES @ 2200 mg/kg (Note 33)</p>	<p>CEFIC: new proposed use level; whole group phosphates; Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p>	<p>EU: the EU can support the correction - the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>Cefic: Agree with 2200mg/kg (Note 33 of the GSFA); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA.</p> <p>France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We support the new request, as these do act as humectants</p> <p>But keep ML at 2.200 mg/kg expressed as P as the others due to difficulties to differentiate between the different phosphates</p> <p>Spain: We agree with the inclusion of 451(ii) and 452 (i) for these products for consistency with other frozen fish products included in FC 9.2.1 in the GSFA at a level of 2200 mg/kg as P.</p> <p>USA: do not support - see relevant comments on CS 190-1995</p>

			the fish muscle leading to a toughening is prevented.			
Food Additives for Breaded or Batter Coatings						
Correction 341(i) Monocalcium orthophosphate 341(ii) Dicalcium orthophosphate		1g/kg expressed as P ₂ O ₅ , singly or in combination; would correspond to app 400 mg/kg as P	Leavening Agents to be corrected to Raising agents		Norway: 1. For consistency with the GSFA proposed to express phosphates as P	EU: the EU can support the correction to "raising agents". As for the use level, the EU supports that the use level is expressed as P. For the consistency with the appropriate GSFA food category (i.e. 06.6 Batters) the EU could support the use level of 5.600 mg/kg France: agrees with SP, the level of P is too high. The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: Support as 341 (ii) - do have raising agent as functional group 341 (i) do not have raising agent as functional group – need to make an application to the INS USA: support
New request/correction Phosphates whole group		PHOSPHATES (whole group)@6000 mg/kg (as P)	Raising agents	Cefic: Category 6.6: PHOSPHATES are permitted @ 5600 mg/kg (Note 33)	CEFIC: new proposed use level; whole group phosphates; Phosphates are used as raising agent in combination with a carbon dioxide source in order to promote a crispy structure. Chemical leavening is a traditional way of bringing volume into baked goods. This is commonly done by raising agents. Baking	EU: not all phosphates have the "raising agents" function, therefore the EU prefers that the standards lists individual additives instead of the whole group of phosphates Cefic: For consistency with the GSFA we proposed to allow all permitted PHOSPHATES as authorised in category 6.6 of the GSFA at a level of 5600 mg/kg with a note corresponding to GSFA note 33. This is essential with regard to a possible limitation of INS541 in this food. Norway do not support phosphates as a whole group. We may support those phosphates which do have the functional class "Raising agent" and then with a note: In batter, only.

					<p>powders are produced for more than 100 years now. Natural leavening (yeast) causes a strong flavour which is undesirably in certain baked goods where other tastes should be perceived. The only known alternative to natural leavening is chemical leavening (raising).</p>	<p>Spain: Phosphates are already authorised at a level of 5600 mg/kg as P in the GSFA for batters FC 06.6.</p> <p>These additives are supposed to have an effect on the batter so maybe this particular request may not be needed.</p> <p>USA: further information needed. Phosphates are already allowed. The justification provided does not address why the maximum level should be increased. Data from bread/batter manufacturers is needed. GSFA maximum levels are based on safety, while commodity standards consider the amount needed to perform the function in the specific product.</p>
<p>Correction</p> <p>541 (i) Sodium aluminium phosphate, acidic</p>		190 mg/kg expressed as Al.	Leavening Agents to be corrected to Raising agents		<p>Norway: a numerical subscript (i) should be added and the word basic should be deleted reflecting that only INS 541 (i) is used as a raising agent. The use level should be expressed as Al</p>	<p>EU: EU believes that the provision for INS 541 is not necessary since there are alternatives – other raising agents in the standards and the exposure to Al should be reduced where possible. EU strongly recommends that the provision is deleted from the standard.</p> <p>Cefic: If the use level will be restricted, technical alternatives need to be permitted simultaneously. See our comment above on the use of PHOSPHATES according to the GSFA in category 6.6.</p> <p>France: These products are breaded or in batter. For the function described, phosphates are authorized in the batters. It seems sufficient.</p> <p>Norway strongly oppose as the use of Al-containing FA should be reduced as much as possible</p> <p>Not authorized in Norwegian legislation</p> <p>Spain: We wonder whether this additive use is necessary. It was proposed for discontinuation in the 45th CCFA.</p> <p>It could be covered by the uses in the batters in F.C 06.6</p>
<p>Correction</p> <p>541 (i) Sodium aluminium</p>		1000 mg/kg expressed as Al	Raising agents	Cefic: Category 6.6: permitted at 1000mg/kg (Note	CEFIC: new proposed use level; Phosphates are used as raising agent in combination	EU: see the comments above + the EU opposes to change the use level of 1000 mg/kg expressed as P ₂ O ₅ to 1000 mg/kg expressed as Al which could lead

<p>phosphate, acidic</p>				<p>6: as aluminium)</p>	<p>with a carbon dioxide source in order to promote a crispy structure. Chemical leavening is a traditional way of bringing volume into baked goods. This is commonly done by raising agents. Baking powders are produced for more than 100 years now. Natural leavening (yeast) causes a strong flavour which is undesirably in certain baked goods where other tastes should be perceived. The only known alternative to natural leavening is chemical leavening (raising).</p>	<p>even to an increased exposure to Al</p> <p>Cefic: There was a decision in the GSFA eWG on aluminium that the basis for all aluminium-containing additives shall be aluminium. A change is therefore required, independently from a potential discussion about removal</p> <p>France: It is recommended by the CCFA to reduce levels of aluminium in NGAA. (JECFA 62th meeting recommendations)</p> <p>Norway strongly oppose as the use of Al-containing FA should be reduced as much as possible</p> <p>Not authorized in Norwegian legislation</p> <p>Spain: We wonder whether this additive use is necessary. It was proposed for discontinuation in the 45th CCFA.</p> <p>Is this new level referred to the fish product or to the batters?</p> <p>It could be covered by the uses in the batters.</p> <p>USA: Further information is needed. This additive is already allowed. The justification provided does not address why the maximum level should be increased. Data from bread/batter manufacturers is needed. GSFA maximum levels are based on safety, while commodity standards consider the amount needed to perform the function in the specific product.</p>
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p>		<p>GMP</p>	<p>eWG chair: functional class to be added</p>		<p>Marinalg: improve adhesion in batters, reduce fat uptake during frying and improve the crispiness of the batter. They protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression</p>	<p>EU: the EU can support the use of alginates as thickeners but in batters only – i.e. in the section "Food Additives for Breaded or Batter Coatings".</p> <p>France: In minced fish filets, these additives have a texturing effect</p> <p>For the effect in the batter, the authorisation in the fish is not necessary.</p> <p>Marinalg: Functional class should be “Stabilizer”. Currently used in widespread use in Europe and Asia Increases the processability during production of the fish fingers.</p> <p>Improve adhesion in batters, reduce fat uptake during</p>

<p>407 Carrageenan</p> <p>407a Processed eucheama seaweed (PES)</p>						<p>frying and improve the crispiness of the batter. They protect the product from structure changes during the freeze-thaw cycles, during handling and storage.</p> <p>Norway: We do not support the use of alginate as emulsifier, stabilizers and thickeners in CS which correspond to subcategory 9.2.1 Frozen fish, fish fillets ...</p> <p>The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefore mislead the consumer</p> <p>The justification provided is for battered products, therefore the corresponding provisions should be discussed in CS which correspond to subcategory 9.2.2</p> <p>Spain: More information about the technological need would be needed.</p> <p>Are these FAs used as carriers for other food additive in preparations?</p> <p>USA: see relevant comments on CS 190-1995</p>
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Standard for Quick Frozen Shrimps or Prawns (CS 92-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>Correction</p> <p>Phosphates listed in the standard</p>		<p>10g/kg as P₂O₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in combination (includes natural phosphate)</p>	<p>IFAC: add function "stabiliser" - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble</p>		<p>Norway: 1. For consistency with the GSFA proposed to express phosphates as P</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA</p> <p>France: agrees with SP, the level of P is too high.</p>

			<p>proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.</p>			<p>The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We propose phosphate at 2.200 mg/kg expressed as P, singly or in combination. No reference to natural phosphates as the content in different species varies.</p> <p>Spain: This level is much higher than 2200 mg/kg as P, used for other similar products.</p> <p>Maybe a revision of phosphates maximum levels could be included in a future systematic review.</p> <p>USA: see relevant comments on CS 190-1995</p>
<p>New request/correction Phosphates whole group</p>		<p>PHOSPHATES (whole group)@2500 mg/kg (as P; excluding natural phosphates since lots of species vary between 1000-3000 mg/kg P naturally) (or @5800 mg/kg as P2O5)</p>	<p>Humectants Cefic: Add also the functional class Stabiliser IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals,</p>	<p>Cefic: Category 09.2.1: PHOSPHATES @ 2200 mg/kg (Note 33)</p>	<p>CEFIC: new proposed use level; whole group phosphates; Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>Cefic: Agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA.</p> <p>France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway We support the new request, as these do act as humectants</p>

			<p>vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.</p>		<p>water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p>	<p>But keep ML at 2.200 mg/kg expressed as P as the others due to difficulties to differentiate between the different phosphates</p> <p>Spain: We agree with the proposal. The phosphates level seems to be very high compared to 2200 mg/kg as P, used for other similar products.</p> <p>USA: see relevant comments on CS 190-1995</p>
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Standard for Quick Frozen Lobsters (CS 95-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>Correction</p> <p>Phosphates listed in the standard</p>		<p>10g/kg as P₂O₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in combination (includes natural phosphate)</p>	<p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins,</p>		<p>Norway: 1. For consistency with the GSFA proposed to express phosphates as P; 2. Functional class "Moisture/Water Retention Agents" should be corrected to "Humectants"</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>Cefic: agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA.</p> <p>France agrees with SP, the level of P is too high.</p> <p>The 76 JECFA recommended to revise the</p>

			minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.			<p>toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We propose phosphate at 2.200 mg/kg expressed as P, singly or in combination. No reference to natural phosphates as the content in different species varies.</p> <p>Spain: This level is much higher than 2200 mg/kg as P, used for other similar products.</p> <p>Maybe a revision of phosphates maximum levels could be included in a future systematic review.</p> <p>USA: see relevant comments on CS 190-1995</p>
<p>New request/correction</p> <p>Phosphates whole group</p>		<p>PHOSPHATES (whole group)@2500 mg/kg (as P; excluding natural phosphates since lots of species vary between 1000-3000 mg/kg P naturally) (or @5800 mg/kg as P2O5)</p>	<p>Humectants</p> <p>Cefic: Add also the functional class Stabiliser</p>		<p>CEFIC: new proposed use level; whole group phosphates; Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity.</p>	<p>EU: for the consistency with the GSFA the EU can support the use of whole group of phosphates at 2.200 mg/kg without any note</p> <p>Cefic: agree with 2200mg/kg (Note 33); remove any reference to natural P inclusion, since this is additional P, not natural (which can be higher than that as already provided in the 1st circular comments). The authorisation should list the GROUP and not individual species of PHOSPHATES for consistency with the GSFA.</p> <p>France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: We support the new request, as these do act as humectants</p> <p>But keep ML at 2.200 mg/kg expressed as P as the</p>

					Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.	others due to difficulties to differentiate between the different phosphates Spain: We agree with the proposal. The phosphates level seems to be very high compared to 2200 mg/kg as P, used for other similar products. USA: see relevant comments on CS 190-1995
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Standard for Canned Tuna and Bonito (CS 70-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSEA food category	Technological justification	Comments – 2nd draft
<p>New request/correction</p> <p>Phosphates whole group</p>		<p>PHOSPHATES (whole group)@1000 mg/kg (as P; in addition to natural phosphates; excluding natural phosphates in tuna species vary between 2000-4000 mg/kg P naturally</p>	<p>Humectants</p> <p>Cefic: sequesterant instead of humectants IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate</p>	<p>Cefic: PHOSPHATES are permitted in category 09.2.4.1 @ 2200 mg/kg (Note 33)</p>	<p>CEFIC: Current technical use level of 10mg/kg is below any functionality. Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented. Di-, Tri- and Polyphosphates also prevent the occurrence of struvite (magnesium ammonium phosphate), which can appear as small glass slivers in canned seafood.</p>	<p>EU: whilst the EU recognises the need for phosphates in frozen unprocessed products, the EU does not support their use in canned fish products. The EU believes that the functions of phosphates described are not beneficial for the products falling under the standard.</p> <p>If the current use level is below any functionality the EU recommends that the provision is deleted from the standard.</p> <p>Cefic: Di-, Tri- and Polyphosphates prevent the occurrence of struvite (magnesium ammonium phosphate), which appear as small glass slivers in canned seafood and which are potential threat for injuries. They are used as sequesterants in this particular application.</p> <p>France: The level of P is too high.</p> <p>The 76 JECFA recommended to</p>

			<p>actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.</p>			<p>revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: supports</p> <p>USA: Do not support Reason: Humectants are not an allowed additive functional class in standardized canned tuna and burrito. Humectant use would change canned tuna’s expected organoleptic characteristics, and would reduce the amount of fish needed in the can to meet net weight.</p> <p>Phosphates are only justified and used in these products as ‘acidity regulators’ to prevent struvite crystal formation. Disodium diphosphate (sodium acid pyrophosphate) is used by industry to prevent struvite in albacore “white” tuna. Struvite does not form in “light” tuna species, therefore no phosphates are used. Only a small amount is needed regulate acidity and prevent struvite crystal formation, as reflected by the maximum level in the Standard. See also comment on proposed MPL for CS 190-1995</p>
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Standard for Canned Shrimps or Prawns (CS 37-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request/correction</p> <p>Phosphates whole group</p>		<p>PHOSPHATES (whole group)@850 mg/kg (as P in addition to natural content; excluding natural phosphates since lots of species vary between 1000-3000 mg/kg P naturally) (or @1950 mg/kg as P₂O₅)</p>	<p>Humectants</p> <p>Cefic: Add the functional class sequestrant + stabiliser</p> <p>IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of</p>	<p>Cefic: PHOSPHATES are permitted in category 09.2.4.2 @ 2200 mg/kg (Note 33)</p>	<p>CEFIC: Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented. Di-, Tri- and Polyphosphates also prevent the occurrence of struvite (magnesium ammonium phosphate), which can appear as small glass slivers in canned seafood. However, phosphoric acid alone does not function as humectant.</p>	<p>The EU does not support the use of phosphates in this standard. The EU believes that the functions of phosphates described are not beneficial for the products falling under the standard.</p> <p>The standard currently permits only Orthophosphoric acid to be used as acidity regulator. No humectants are permitted.</p> <p>Cefic: Di-, Tri- and Polyphosphates prevent the occurrence of struvite (magnesium ammonium phosphate), which appear as small glass slivers in canned seafood and which are potential threat for injuries. They are used as sequesterants in this particular application besides the possible use as humectants and stabiliser.</p> <p>France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report).</p> <p>There could be potential affects on human health.</p> <p>Norway: supports</p> <p>Spain: We do not oppose to the</p>

			the fish muscle leading to a toughening is prevented.			proposal. USA: do not support Humectants are not an allowed additive functional class in standardized canned shrimp. Their use would change canned shrimp's expected organoleptic characteristics, and would reduce the amount of shrimp needed in the can to meet net weight.
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Standard for Canned Crab Meat (CS 90-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
Correction Phosphates listed in the standard		10g/kg as P ₂ O ₅ – would correspond to app 4.400 mg/kg expressed as P, singly or in combination (includes natural phosphate)	Cefic: Add the functional classes sequestrant + humectant + stabiliser IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and other	Cefic: PHOSPHATES are permitted in category 09.2.4.2 @ 2200 mg/kg (Note 33)	Norway: 1. For consistency with the GSFA proposed to express phosphates as P	EU: whilst the EU recognises the need for phosphates in frozen unprocessed products, the EU does not support their use as humectants in canned products. The EU believes that the functions of phosphates described are not beneficial for the products falling under the standard. Cefic: Di-, Tri- and Polyphosphates prevent the occurrence of struvite (magnesium ammonium phosphate), which appear as small glass slivers in canned seafood and which are potential threat for injuries. They are used as sequesterants in this particular application besides the possible use as humectants

			components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.			and stabiliser. France: too high level of P The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: Technological justification?? Spain: The actual level in the CODEX STAN is 10mg/kg USA: do not support - see relevant comments on CS 190-1995
New request/correction Phosphates whole group		PHOSPHATES (whole group)@850 mg/kg (as P; excluding natural phosphates since lots of species vary between 1000-3000 mg/kg P naturally) (or @1950 mg/kg as P2O5)	Humectants Cefic: Add the functional class sequestrant + stabiliser IFAC: add function “stabiliser” - phosphates stabilize fish and seafood products against drip and thawing losses, therefore reducing losses of soluble proteins, minerals, vitamins, and	Cefic: PHOSPHATES are permitted in category 09.2.4.2 @ 2200 mg/kg (Note 33	CEFIC: Current technical use level of 10mg/kg is below any functionality. Phosphates stabilize fish and sea-food products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented. Di-, Tri- and Polyphosphates also prevent the occurrence of struvite (magnesium ammonium phosphate), which can appear as small glass slivers in canned seafood.	EU: whilst the EU recognises the need for phosphates in frozen unprocessed products, the EU does not support their use as humectants in canned products. The EU believes that the functions of phosphates described are not beneficial for the products falling under the standard. Cefic: Di-, Tri- and Polyphosphates prevent the occurrence of struvite (magnesium ammonium phosphate), which appear as small glass slivers in canned seafood and which are potential threat for injuries. They are used as sequesterants in this particular application besides the possible use as humectants

			other components of high nutritional value. Like ATP, phosphates activate actomyosin, which helps to stabilize the water-holding capacity. Thus, drip losses are reduced and dehydration of the fish muscle leading to a toughening is prevented.			and stabiliser. Norway: Not technological justified Spain: We agree with the proposal. Maximum level seems very low when compared to similar products. USA: do not support Humectants are not an allowed additive functional class in standardized canned crab. Their use would change canned crab's expected organoleptic characteristics, and would reduce the amount of crab needed in the can to meet net weight
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Standard for Salted Fish and Dried Salted Fish of the Gadidae Family of Fishes (CS 167-1989)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request from Cefic PHOSPHATES		2200 mg/kg (Note 33 – as phosphorous)	Sequestering agent		Phosphates prevent discolorations / rancidity of fat in salted fish and act as sequestering agents to prolong the shelf-life and the improve the quality of salted fish. The use does NOT increase P- intake, since it is washed out during desalting before consumption. <u>References:</u> (1) use is accepted in EU, regulation underway. (2) Thorarinsdottir et al. (2010) - The Effects of Presalting Methods from Injection to Pickling, on the Yields of Heavily Salted Cod (Gadus morhua),	

					Journal of Food Science, 75(8) (E544-E551)	
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Standard for Fish Sauce (CS 302-2011)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request from Cefic PHOSPHATES		2200 mg/kg (Note 33 – as phosphorous)	Stabilizer; acidity regulator;	PHOSPHATES are permitted in category 12.6. at a level 2200 mg/kg with the note 33.	Phosphates have the function as acidity regulator and stabilizer which are necessary functions in the standard. We propose therefore to align the standard with the GSFA regarding the use of PHOSPHATES.	

Standard for Crackers from Marine and Freshwater Fish, Crustaceans and Molluscan Shellfish (CS 222-2001)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
Correction 452 Polyphosphates		5g/kg as P ₂ O ₅ – would correspond to app 2.200 mg/kg expressed as P, singly or in combination (includes natural phosphate)			Norway: 1. For consistency with the GSFA proposed to express phosphates as P	France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: Technological justification?? USA: see relevant comments on CS 190-1995
New request/correction Phosphates whole group		PHOSPHATES (whole group)@2500 mg/kg (as P in addition to	Sequestrants	Cefic: 07.1.2 Crackers, excluding sweet crackers: PHOSPHATES are permitted @ 9300 mg/kg	CEFIC: Phosphates are only needed for the fish/seafood itself prior to or during processing, there is no intended impact on the final cracker. (Phosphates stabilize fish and sea-food	Cefic: the authorisation should list the GROUP with its maximum use level and not individual species of PHOSPHATES for consistency

		<p>natural content; excluding natural phosphates since there are species with more than 4000 mg/kg naturally) in the fish portion of the product (or @5800 mg/kg as P2O5)</p>		<p>with Notes 33 and 229.</p>	<p>products against discolorations, drip losses, thawing losses and cooking losses, and therefore reduce losses of soluble proteins, minerals, vitamins, and other components of high nutritional value. Similarly to ATP, phosphates activate actomyosin, leading to a stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.)</p>	<p>with the GSFA. France: The 76 JECFA recommended to revise the toxicological basis of the MTDI for phosphates expressed in P (CCFFA2013 report). There could be potential affects on human health. Norway: Not technological justified Spain: We do not oppose to this proposal. USA: do not support; Standardized seafood crackers are a “traditional food” with specified low moisture content. The technological justification given focuses on water retention and does not match the allowed ‘sequestrant’ (preservative) function in seafood crackers. The proposal also does not indicate why the maximum level should be increased.</p>
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Appendix II – provisions enclosed for information purposes

Standard for Quick Frozen Finfish, Eviscerated or Uneviscerated (36-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level (mg/kg)	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression</p>	<p>EU: whilst the EU recognises a potential technological need for alginates in certain processed products, the EU does not support their use in unprocessed products. According to the standard (section 2.2) the freezing process shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly and the product shall be kept deep frozen so as to maintain the quality during transportation, storage and distribution.</p> <p>Therefore, there should not be any freeze-thaw cycles with an impact on structure changes. The use of additives should not mislead the consumer as for fish freshness and good manufacturing practices.</p> <p>France: does not support. The use of these additives could mislead the consumer about the freshness of the product (change of the structure).</p> <p>Norway: We do not support the use of alginate as emulsifier, stabilizers and thickeners in CS which correspond to subcategory 9.2.1 Frozen fish, fish fillets ...</p> <p>The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefore mislead the consumer</p> <p>The justification provided is for battered products, therefore the corresponding provisions should be discussed in CS which correspond to subcategory 9.2.2</p> <p>Spain: More information about the technological need would be needed.</p>

						<p>Are these FAs used as carriers for other food additive in preparations?</p> <p>USA: Do not support Reason: The listed technical justification is “to protect the product from structure changes during the freeze/thaw cycles...”. We question if quick frozen whole fish should be subjected to freeze/thaw cycles, and would expect temperature fluctuations to be controlled by GMPs. Additives are only justified when their objectives cannot be achieved by other means that are economically and technologically practicable (GSFA). How are alginates and carrageenan added to whole fish?</p>
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Codex General Standard for Quick Frozen Fish Fillets (CS 190-1995)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p> <p>407a Processed Euchema Seaweed (PES)</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression</p>	<p>EU: whilst the EU recognises a potential technological need for alginates in certain processed products, the EU does not support their use in unprocessed products.</p> <p>There should not be any freeze-thaw cycles with an impact on structure changes. The use of additives should not mislead the consumer as for fish freshness and good manufacturing practices.</p> <p>France does not support. The use of these additives could mislead the consumer about the freshness of the product (change of the structure).</p> <p>Marinalg: Functional class should be “Stabilizer”.</p> <p>Currently used in a number of countries in Asia Protects the product from freeze burn by</p>

						<p>coating the surface.</p> <p>Assists in the stabilization of the water-holding capacity in combination with pH regulators like phosphate, citrate, carbonate. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p> <p>Norway: We do not support the use of alginate as emulsifier, stabilizers and thickeners in CS which correspond to subcategory 9.2.1 Frozen fish, fish fillets ...</p> <p>The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefor mislead the consumer</p> <p>Spain: More information about the technological need would be needed.</p> <p>Are these FAs used as carriers for other food additive in preparations?</p> <p>USA: Do not support.</p> <p>Reason: The technological justification given is to protect the product from structural changes during freeze-thaw cycles, but they can also be used for other purposes. Note that the GSFA lists the following possible functions:</p> <ul style="list-style-type: none"> • Bulking agent • Carrier • Emulsifier • Foaming agent • Gelling agent • Glazing agent • Humectant • Sequestrant • Stabilizer
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						<ul style="list-style-type: none"> Thickener <p>Some of the ways they are used are not justified under the Standard. For example, it is difficult to attain 20% added water in fish fillets using phosphate solutions without also using colloidal additives. In addition, the thickening and temperature stabilizing properties help attain higher deglazed net weights relative to untreated product when using the AOAC deglazing method. We question the need for a special additive for quick frozen fish fillets that are thawed and refrozen, a process that should be avoided under GMPs.</p>
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Standard for Quick Frozen Shrimps or Prawns (CS 92-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSEFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression</p>	<p>EU: does not support. There should not be any freeze-thaw cycles with an impact on structure changes. The use of additives should not mislead the consumer as for the freshness and good manufacturing practices.</p> <p>France does not support. The use of these additives could mislead the consumer about the freshness of the product (change of the structure).</p> <p>Marinalg: Functional class should be “Stabilizer”.</p> <p>Protects the product from freeze burn by coating the surface.</p> <p>Assists in the stabilization of the water-holding capacity in combination with pH regulators like phosphate, citrate, carbonate. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p> <p>Norway: We do not support the use of alginate as</p>

						<p>emulsifier, stabilizers and thickeners in CS which correspond to subcategory 9.2.1 Frozen fish, fish fillets ...</p> <p>The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefore mislead the consumer</p> <p>The justification provided is for battered products, therefore the corresponding provisions should be discussed in CS which correspond to subcategory 9.2.2</p> <p>Spain: More information about the technological need would be needed.</p> <p>Are these FAs used as carriers for other food additive in preparations?</p> <p>USA: see relevant comments on CS 190-1995</p>
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Standard for Quick Frozen Lobsters (CS 95-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to protect the product from structure changes during the freeze-thaw cycles, during handling and storage, by decreasing the freezing point depression</p>	<p>EU: does not support. There should not be any freeze-thaw cycles with an impact on structure changes. The use of additives should not mislead the consumer as for the freshness and good manufacturing practices.</p> <p>France does not support. The use of these additives could mislead the consumer about the freshness of the product (change of the structure).</p> <p>Marinalg: Functional class should be "Stabilizer".</p> <p>Protects the product from freeze burn by coating the surface.</p> <p>Assists in the stabilization of the water-holding capacity. Thus drip losses are reduced and dehydration of the fish muscle leading to a tough and stringy structure is prevented.</p> <p>Norway: We do not support the use of alginate as emulsifier, stabilizers and thickeners in CS</p>

						<p>which correspond to subcategory 9.2.1 Frozen fish, fish fillets ...</p> <p>The textural properties of fish relate to its freshness. The use of "texturizing agents" in whole fish would therefore mislead the consumer</p> <p>The justification provided is for battered products, therefore the corresponding provisions should be discussed in CS which correspond to subcategory 9.2.2</p> <p>Spain: More information about the technological need would be needed.</p> <p>Are these FAs used as carriers for other food additive in preparations?</p> <p>USA: see relevant comments on CS 190-1995</p>
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Standard for Canned Salmon (CS 3-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: eWG chair - technological justification to be provided</p>	<p>EU: no additives are currently permitted in the standard. A technological justification has to be provided for this request.</p> <p>Marinalg: Functional class should be "Stabilizer". Lowers the cooking loss and helps to maintain the shape of the fish cut during the heat treatment. Table 3 additives are allowed in FC 9.4 according to the online GSFA.</p> <p>USA: see relevant comments on CS 190-1995</p>

Standard for Canned Shrimps or Prawns (CS 37-1981)

Additive (INS +	Product	Maximum use	Functional	Status in	Technological justification	Comments
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name)	subclasses in the standard	level	class	corresponding GSFA food category		
New request 400 Alginic acid 401 Sodium alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium alginate 407 Carrageenan		GMP	eWG chair: functional class to be added		Marinalg: eWG chair - technological justification to be provided	EU: Technological justification has to be provided for this request. Marinalg: Functional class should be “Stabilizer”. Lowers the cooking loss and helps to maintain the shape of the fish cut during the heat treatment. Table 3 additives are allowed in FC 9.4 according to the online GSFA. USA: do not support - see relevant comments on CS 190-1995

Standard for Canned Crab Meat (CS 90-1981)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request 400 Alginic acid 401 Sodium alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium alginate 407 Carrageenan		GMP	eWG chair: functional class to be added		Marinalg: eWG chair - technological justification to be provided	EU: Technological justification has to be provided for this request. Marinalg: Functional class should be “Stabilizer”. Lowers the cooking loss and helps to maintain the shape of the fish cut during the heat treatment. Table 3 additives are allowed in FC 9.4 according to the online GSFA. USA: do not support - see relevant comments on CS 190-1995; no technological justification provided

Standard for Salted Fish and Dried Salted Fish of the Gadidae Family of Fishes (CS 167-1989)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request</p> <p>400 Alginic acid</p> <p>401 Sodium alginate</p> <p>402 Potassium alginate</p> <p>403 Ammonium alginate</p> <p>404 Calcium alginate</p> <p>407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to improve the texture. The use results in a softer and more juicy product.</p>	<p>EU: Technological justification has to be provided for this request.</p> <p>France does not support. This function is not necessary as this product is known as naturally dry.</p> <p>Marinalg: Functional class should be “Stabilizer”.</p> <p>Norway: Not authorized in corresponding food category 9.2.5 smoked, dried, fermented, and/or salted fish and fish products, including molluscs, crustaceans, and echinoderms</p> <p>USA: do not support; The technological justification given, to create a “softer more juicy product”, is that of a ‘moisture/water retention agent’ that is not allowed in standardized salt cod. This function may counter the drying process.</p>

Standard for Boiled Dried Salted Anchovies (CS 236-2003)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request 400 Alginic acid 401 Sodium alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium alginate 407 Carrageenan		GMP	eWG chair: functional class to be added		Marinalg: to improve the texture. The use results in a softer and more juicy product.	EU: Technological justification has to be provided for this request. France does not support. This function is not necessary as this product is known as naturally dry. Marinalg: Functional class should be “Stabilizer”. Norway: Not authorized in corresponding food category 9.2.5 smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms USA: do not support No additives are allowed in these products. Introducing additives would change the expected organoleptic characteristics of an established standardized product. The technological justification given, to create a “softer more juicy product”, is a function that may hinder the drying process.

Standard for Fish Sauce (CS 302-2011)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
New request 400 Alginic acid 401 Sodium		GMP	eWG chair: functional class to be added		Marinalg: eWG chair - technological justification to be provided	EU: Technological justification has to be provided for this request.

alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium alginate 407 Carrageenan						<p>Marinalg: Functional class should be “Stabilizer”. Provides viscosity and stabilises the fish sauce. Table 3 additives are allowed in FC 16.6.4 according to the online GSFA.</p> <p>USA: do not support No technological function or justification listed. The standard for fish sauce was recently adopted and no producing countries expressed a need for these additives.</p>
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Standard for Crackers from Marine and Freshwater Fish, Crustaceans and Molluscan Shellfish (CS 222-2001)

Additive (INS + name)	Product subclasses in the standard	Maximum use level	Functional class	Status in corresponding GSFA food category	Technological justification	Comments
<p>New request 400 Alginic acid 401 Sodium alginate 402 Potassium alginate 403 Ammonium alginate 404 Calcium alginate 407 Carrageenan</p>		GMP	eWG chair: functional class to be added		<p>Marinalg: to improve the texture. The use results in a softer and more juicy product.</p>	<p>EU: Technological justification has to be provided for this request.</p> <p>France: These are crackers products, they don’t need to be juicy</p> <p>Marinalg: Functional class should be “Stabilizer”. Table 3 additives are allowed in FC 15.3 according to the online GSFA.</p> <p>USA: do not support The technological justification given, to create “a softer and more juicy product”, does not appear to align with the desired qualities of dry seafood crackers</p>