CODEX ALIMENTARIUS COMMISSION E

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 5(b) **CX/FA 15/47/8**

December 2014

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-Seventh Session

Xi'an, China, 23-27 March 2015

PROVISIONS IN TABLES 1 AND 2 OF TABLE 3 FOOD ADDITIVES WITH "EMULSIFIER, STABILIZER, THICKENER" FUNCTION FOR THEIR USE FOR TECHNOLOGICAL FUNCTIONS OTHER THAN AS EMULSIFER STABILIZER, THICKENER

Prepared by an electronic Working Group lead by the United States of America (USA), with the assistance of Australia (AUS), Brazil, Costa Rica, European Union (EU), India, Indonesia, Iran, Japan, Norway, Russian Federation (RF), Thailand, CCTA, CEFIC, CEFS, EFEMA, ELC, IADSA, ICBA, ICGA, IDF, IFAC, IFU

Background

1. The physical working group (p-WG) on the General Standard for Food Additives (GSFA) for the 45th and 46th Codex Committee on Food Additives (CCFA) reached consensus on the horizontal approach for the use of Table 3 additives with "emulsifier, stabilizer, thickener" function in food categories listed in the Annex to Table 3 of the GSFA.[1, 2] These p-WGs then considered proposals for provisions for Table 3 additives with emulsifier, stabilizer, thickener function in the context of this horizontal approach and recommended that when emulsifier, stabilizer, thickeners are not justified in a food category, provisions for Table 3 food additives with functions in addition to emulsifier, stabilizer, thickener should be held at their current step in the GSFA.[3, 4] The 46th CCFA agreed that the e-WG on the GSFA for the 47th CCFA should prepare proposals for these held provisions for the use of these Table 3 food additives for functions other than emulsifier, stabilizer, thickener.[5]

Working Document

Appendix 1

2. Appendix 1 of this document presents proposals on provisions currently in the step process in Tables 1 and 2 of the GSFA for Table 3 food additives with emulsifier, stabilizer, thickener function for their use for technological functions other than emulsifier, thickener, stabilizer, or acidity regulator. Appendix 1 presents these proposals in the format of the food categories listed in the Annex to Table 3. The hierarchical nature of the food category system is reflected by including subcategories affected by the listing of a parent food category in the Annex to Table 3. Information on corresponding Codex commodity standards and the use of food additives in those commodity standards is provided for each food category. Information on the decision of the p-WG to the 45th or 46th CCFA as to justification of the use of emulsifiers, stabilizers, and thickeners, or of acidity regulators, in a food category is also presented where such information may be informative to the discussion of the provisions in that food category.

3. The proposals presented in Appendix 1 are based upon a consensus approach taking into account alignment with corresponding Codex commodity standards and comments by members of the e-WG. These recommendations are based on a "weight of evidence" approach; that is, comments containing justifications were given more weight than comments with no supporting justification.

[1] FA45/CRD 2, Appendix V.
[2] FA46/CRD 2, Appendix II.
[3] FA45/CRD 2, Appendix VI.
[4] FA46/CRD 2, Appendix I.
[5] REP 14/FA, para. 103.

Appendix 2

4. The 45th and 46th CCFA reached decisions on the majority of provisions in Tables 1 and 2 of the GSFA for the use of Table 3 additives as emulsifiers, stabilizers, or thickeners. In addition, the 45th CCFA reached decisions on the majority of provisions in Tables 1 and 2 of the GSFA for the use of Table 3 additives as acidity regulators. However, there are multiple provisions currently in the step process in Tables 1 and 2 of the GSFA for specific Table 3 additives where their use as emulsifiers, stabilizers, and thickeners, or as acidity regulators, has not been considered by the Committee.[6] These provisions are compiled in Appendix 2 and are categorized below:

a) Consideration of additives with functions in addition to emulsifier, stabilizer thickener, for use as emulsifiers, stabilizers, thickeners in subcategories of parent categories where emulsifiers, stabilizer, or thickeners are not justified on a general basis - As per the working principles for the p-WGs to the 45th and 46th CCFA, when emulsifiers, stabilizers, thickeners are not justified in a parent category, provisions for additives with technological functions in addition to emulsifier, stabilizer, thickener were held for consideration of the additional functions in the parent category. As such, these additives were not considered for use as emulsifiers, stabilizers, or thickeners in the subcategories relevant to that parent category. Should the current p-WG determine that these additives with functional effects in addition to emulsifier, stabilizer, thickener are not used for these additional function effects in either the parent category or its subcategories, the use of these food additives as emulsifiers, stabilizers, or thickeners in the relevant subcategories would still need to be considered. As such these provisions are presented in both Appendix 1 and 2.

b) Consideration of additives with both acidity regulator function and emulsifier, stabilizer, thickener function, for use as acidity regulators in subcategories of parent categories where acidity regulators are not justified on a general basis - As per the working principles for the p-WG to the 45th CCFA, when acidity regulators are not justified in a parent category, provisions for additives with function in addition to acidity regulators were held for consideration of the additional functions in the parent category. As such, these additives were not considered for use as acidity regulators in the subcategories relevant to that parent category. Should the current p-WG determine that additives with acidity regulator function and emulsifier, stabilizer, thickener function are not used for emulsifier, stabilizer, thickener function in the parent category or its subcategories, the use of these food additives as acidity regulators in the relevant subcategories would still need to be considered. Provisions for additives with functional effects in addition to acidity regulator and emulsifier, stabilizer, thickener are presented in both Appendix 1 and 2. Those with acidity regulator and emulsifier, stabilizer, thickener function only are presented in Appendix 2 only.

c) Consideration of provisions at Step 2 for additives with emulsifier, stabilizer, thickener function – The 46th CCFA entered provisions in Tables 1 and 2 for several Table 3 additives with emulsifier, stabilizer, thickener function into the GSFA step procedure at Step 2.[7, 8] Those provisions at Step 2 for Table 3 additives with technological functions in addition to emulsifier, stabilizer, thickener are considered for these additional functions in Appendix 1. Should the current p-WG determine that these provisions at Step 2 for Table 3 additives with functional effects in addition to emulsifier, stabilizer, thickener are not used for these additional functions, the use of these food additives as emulsifiers, stabilizers, or thickeners would still need to be considered. As such, provisions at Step 2 for Table 3 additives with functional effects in addition to emulsifier, stabilizer, thickener are also presented in Appendix 2. Provisions at Step 2 for Table 3 additives with emulsifier, stabilizer, thickener function only are presented in Appendix 2 only.

d) Consideration of Provisions for Guar gum (INS 412) - The p-WGs on the GSFA for the 45th and 46th CCFAs utilized working principles to implement the horizontal approach for emulsifiers, stabilizers, and thickeners in each Food Category. To assist with the application of these working principles, the p-WGs to the 45th and 46th CCFA compiled a table of those additives under consideration with associated functional class of emulsifier, stabilizer, thickener only.[3, 4] Although guar gum has only emulsifier, stabilizer, thickener function, it was omitted from this table. As such, provisions for guar gum were held in categories where the use of emulsifiers, stabilizers, and thickeners is not justified on a general basis, and the use of guar gum as an emulsifier, stabilizer, thickener was not considered in

[6] This document only considers provisions currently in the step process in Tables 1 and 2 of the GSFA for Table 3 additives with acidity regulator function when those additives also have emulsifier, stabilizer, or thickener function. Provisions currently in the step process in Tables 1 and 2 of the GSFA for Table 3 additives with acidity regulator function that do not also have emulsifier, stabilizer, or thickener function are compiled in CX/FA 15/47/7.
[7] REP14/FA, paras 84-86.
[8] REP14/FA. Appendix X.

the relevant subcategories to those parent categories. Proposals on these provisions for guar gum have been compiled in Appendix 2 only.

e) Provisions for Carrageenan (INS 407) in food categories 13.1.2 (Follow-up formulae) and 13.2 (Complementary foods for infants and young children) – Although the use of emulsifiers, stabilizers, and thickeners are justified in food categories 13.1.2 and 13.2 on a case-by-case basis, the p-WG to the 46th CCFA held provisions for carrageenan in food categories 13.1.2 and 13.2 pending the evaluation by the Joint Expert Committee on Food Additives (JECFA) of the use of this additive in foods intended for infants.[9] The 79th JECFA evaluated carrageenan for this use.[10] As carrageenan has functional effects in addition to emulsifier, stabilizer, thickener, these provisions are presented in both Appendix 1 and 2.

6. Appendix 2 of this document presents proposals on provisions currently in the step process in Tables 1 and 2 of the GSFA for Table 3 food additives for their use as emulsifiers, stabilizers and thickeners, or as acidity regulators. The hierarchical nature of the food category system is reflected in Appendix 2 by including subcategories affected by the listing of a parent food category in the Annex to Table 3. Information on corresponding Codex commodity standards and the use of food additives in those commodity standards is provided for each food category. Information on the decision of the p-WGs to the 45th and 46th CCFA as to justification of the use of emulsifiers, stabilizers, and thickeners, or of acidity regulators, in a food category is also presented when appropriate.

7. The proposals presented in Appendix 2 are based upon a consensus approach taking into account 1) alignment with corresponding Codex commodity standards; 2) the horizontal approach for emulsifiers, stabilizers, and thickeners, or acidity regulators, as developed by the p-WGs to the 45th and 46th CCFA; and 3) comments by members of the e-WG. These recommendations are based on a "weight of evidence" approach; that is, comments containing justifications were given more weight than comments with no supporting justification.

Conventions

8. The following conventions were used to prepare Appendix 1 and 2:

- Subcategories not listed in the Annex to Table 3, but affected by the listing of the parent food category in the Annex to Table 3, are indicated by underlining the food category number of the affected subcategory.
- When the recommendation is to move a food additive provision from a parent food category to a subcategory, the original provision in the parent food category is indicated with ~~strikethrough~~ font and the new provision in the subcategory is in **bold** font with no Step indicated in the "Step/Adopted" column
- As a space-saving measure, the emulsifier, stabilizer, or thickener function associated with an additive is not displayed in Appendix 1, with the exception of those provisions where emulsifier, stabilizer, or thickener function should be considered.

[9] FA46/CRD 2.
[10] JECFA/79/SC

Appendix 1: Table 3 food additives for use other than "emulsifier, stabilizer, thickener"

Food Category No. 01.1.1 (Milk and buttermilk (plain))

Other Considerations: This FC is under consideration by the e-WG on Descriptors for FC 01.1 and subcategories (i.e. Dairy descriptors) - see REP 14/FA para. 77.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[11]
AGAR	406	4000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Hold provisions - consider use as ES&T after the work of the eWG on Descriptors for FC 01.1 and its Subcategories is complete	
GELLAN GUM	418	GMP		7	Stabilizer, Thickener		
GUAR GUM	412	6000		7	Emulsifier, Stabilizer, Thickener		**Thailand:** Guar gum is used as stabilizer in plain UHT millk to maintain emulsion stability of products and improve the mouthfeel
KARAYA GUM	416	200		7	Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	10000		7	Antifoaming agent		**Thailand:** used as stabilizer in plain UHT millk to maintain emulsion stability of products and improve the mouthfeel.
PECTINS	440	GMP		7	Gelling agent		
POLYDEXTROSES	1200	GMP		7	Bulking agent, Glazing agent, Humectant		
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
TARA GUM	417	GMP		7	Gelling agent		
TRISODIUM CITRATE	331(iii)	GMP		7	Sequestrant		

[11] General comments: **Russian Federation**: use of additives (except those allowed in CODEX STAN 192-1995) can mislead consumers – plain milk and buttermilk are used to prepare other foods, use of additives could affect quality of those foods.

Food Category No. 01.1.1.1 (Milk (plain))

Other Considerations: This FC is under consideration by the e-WG on Descriptors for FC 01.1 and subcategories (i.e. Dairy descriptors) - see REP 14/FA para. 77.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[11]
CAROB BEAN GUM	410	GMP		7	Emulsifier, Stabilizer, Thickener	Hold provisions - consider use as ES&T after the work of the eWG on Descriptors for FC 01.1 and its Subcategories is complete	
CARRAGEENAN	407	10000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		**Thailand**: used as stabilizers in plain UHT millk to maintain emulsion stability of products and improve the mouthfeel.
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		4	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		
XANTHAN GUM	415	GMP		7	Foaming agent		

Food Category No. 01.1.1.2 (Buttermilk (plain))

Other Considerations: This FC is under consideration by the e-WG on Descriptors for FC 01.1 and subcategories (i.e. Dairy descriptors) - see REP 14/FA para. 77.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[11]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		7	Sequestrant	Hold provisions - consider use as ES&T after the work of the eWG on Descriptors for FC 01.1 and its Subcategories is complete	
ACETYLATED DISTARCH PHOSPHATE	1414	GMP		7	Emulsifier, Stabilizer, Thickener		
ALGINIC ACID	400	6000		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CALCIUM ALGINATE	404	6000		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[11]
					Sequestrant		
CAROB BEAN GUM	410	5000		7	Emulsifier, Stabilizer, Thickener		
CARRAGEENAN	407	6000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		7	Antioxidant, Flour treatment agent, Sequestrant		
GUM ARABIC (ACACIA GUM)	414	GMP		7	Bulking agent, Carrier, Glazing agent		
HYDROXYPROPYL CELLULOSE	463	GMP		7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP		7	Bulking agent, Glazing agent		
HYDROXYPROPYL STARCH	1440	GMP		7	Emulsifier, Stabilizer, Thickener		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		7	Sequestrant		
LECITHIN	322(i)	GMP		7	Antioxidant		
MAGNESIUM CHLORIDE	511	GMP		7	Colour retention agent, Firming agent		
METHYL CELLULOSE	461	GMP		7	Bulking agent, Glazing agent		
METHYL ETHYL CELLULOSE	465	GMP		7	Foaming agent		
OXIDIZED STARCH	1404	GMP		7	Emulsifier, Stabilizer, Thickener		
POTASSIUM ALGINATE	402	6000		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[11]
POWDERED CELLULOSE	460(ii)	GMP		7	Anticaking agent, Bulking agent, Glazing agent, Humectant		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP		7	Anticaking agent		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP		7	Anticaking agent		
SODIUM ALGINATE	401	6000		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	2000		7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		**Japan:** used to provide stable emulsification (inhibit solidification of fat)
TRAGACANTH GUM	413	GMP		7	Emulsifier, Stabilizer, Thickener		
XANTHAN GUM	415	3000		7	Foaming agent		

Food Category No. 01.2 (Fermented and renneted milk products (plain) excluding food category 01.1.2 (dairy based drinks))

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified on a general basis in this FC. However, ES&T are justified in certain subcategories.

Corresponding commodity standards: None, 243-2003 corresponds to subcategories 01.2.1.1 & 01.2.1.2 - allows specific carbonating agents, stabilizers and thickeners in both FCs and Table 3 packaging gases in FC 01.2.1.2.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[12]
AGAR	406	5000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant,	Consider ES&T use in Appendix 2	**EU:** Commodity standards do not allow bulking/ gelling agents **Indonesia:** permits use as bulking and gelling agents.

[12] General Comments: **Russian Federation:** use of food additives in this food category could mislead consumers on quality.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[12]
					Emulsifier, Stabilizer, Thickener		
CARRAGEENAN	407	5000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		**EU:** Commodity standards do not allow bulking/ gelling agents **Indonesia:** permits use as bulking and gelling agents.
GUM ARABIC (ACACIA GUM)	414	GMP		4	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP		4	Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	5000		7	Antifoaming agent, Emulsifier, Stabilizer		**EU:** antifoaming agents are not permitted in 243-2003 **Indonesia:** permits use as antifoaming agent **IFAC:** used in some foods in this FC.
POLYDEXTROSES	1200	GMP		7	Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener		**EU:** bulking agents and humectants are not permitted in 243-2003 **Indonesia:** permits use as bulking agent and humectant
PROCESSED EUCHEUMA SEAWEED (PES)	407a	5000		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		**EU:** antifoaming agents are not permitted in 243-2003 **IFAC:** used as a foaming agent in some foods in this FC.
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		4	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		**Japan:** used to provide stable emulsification (inhibit solidification of fat). Supports e-WG proposal.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[12]
XANTHAN GUM	415	GMP		4	Foaming agent, Emulsifier, Stabilizer, Thickener		**EU, ELC:** antifoaming agents are not permitted in 243-2003 **IFAC:** used as a foaming agent in some foods in this FC.

Food Category No. 01.2.1.2 (Fermented milks (plain), heat-treated after fermentation))

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: 243-2003: allows stabilizers, thickeners, and table 3 packaging gases in foods corresponding to this food category.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	GMP		2	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener	Consider ES&T use in Appendix 2	**IFAC:** used as stabilizer/ thickener in applications when heat is applied after fermentation. Ensures a consistent thickness and uniformity of the product. Use level should be GMP.
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP		2	Antifoaming agent, Emulsifier, Stabilizer		**Japan:** INS 471 does not have thickener function, proposes add note "for use as stabilizer only" **EFEMA**: used as a stabilizer in fermented milk, heat treated after fermentation

Food Category No. 02.1.2 (Vegetable oils and fats)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis

Corresponding commodity standards: 019-1981, 210-1999: allows specific antioxidants, antioxidant synergists, and anti-foaming agents; 033-1981: does not allow food additives (except tocopherols).

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		7	Sequestrant	Discontinue - not allowed in corresponding commodity standards	**Brazil, EU, India, Japan, RF:** discontinue **Indonesia:** Does not support discontinuation
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
ALGINIC ACID	400	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					Humectant, Sequestrant		
AMMONIUM ALGINATE	403	5000		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		**Brazil, EU, India, Japan, RF:** discontinue
CALCIUM ALGINATE	404	5000		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		7	Antioxidant, Flour treatment agent, Sequestrant	Adopt at 100 mg/kg with Note 277[13] - conforms to corresponding standards	**Brazil:** Not allowed in Brazil **EU, India, Japan, EFEMA, IFAC**: Accepts proposal **RF:** also exclude from fats and oils essentially free from water.
GUM ARABIC (ACACIA GUM)	414	15000		7	Bulking agent, Carrier, Glazing agent	Discontinue - not allowed in corresponding commodity standards	**Brazil, EU, India, Japan, RF:** discontinue
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		7	Sequestrant		**Brazil, EU, Japan, RF:** discontinue
LECITHIN	322(i)	30000		7	Antioxidant	Refer to CCFO - information provided indicates use in this FC although not allowed in corresponding standards	**Brazil:** allowed at 2000mg/kg **EU:** permitted in EU (except virgin oils and olive oils). **EU, India:** Supports proposal **Japan, RF:** discontinue **ELC:** adopt. Widely used as an antioxidant for fats and oils. In particular it is effective as a synergist in combination with tocopherols, or other antioxidants.
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent	Discontinue - not allowed in corresponding	**Multiple members**: support e-WG proposal

[13] **Note 277**: Excluding virgin and cold pressed oils and products conforming to the standard for Olive Oils and Olive Pomace Oils (CODEX STAN 33-1981).

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	20000		7	Antifoaming agent	commodity standards	
PECTINS	440	GMP		7	Gelling agent		
POTASSIUM ALGINATE	402	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP		7	Sequestrant		**CEFIC:** Similar properties (sequestrant) as sodium citrates and authorized at QS (GMP) level in Europe with exception for "virgin oils and virgin olive oils." **Multiple members**: support e-WG proposal
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		**Multiple members**: support e-WG proposal
SODIUM ALGINATE	401	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM DIHYDROGEN CITRATE	331(i)	GMP		7	Sequestrant	Adopt with note 277 - conforms to corresponding standards	**Japan:** INS 331(i) is listed as "antioxidant synergist" in corresponding commodity standards but not the INS. Propose functional class of "antioxidant be added to INS 331(i) in CAC/GL 36-1989. **CEFIC:** sequestrant; authorized at QS (GMP) level in Europe with exception for "virgin oils and virgin olive oils." **Multiple members**: support e-WG proposal
TARA GUM	417	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal
TRICALCIUM CITRATE	333(iii)	GMP		7	Sequestrant	Refer to CCFO - information provided indicates use in this FC although not allowed in corresponding standards	**Brazil:** recognizes sequestrant use **EU:** citrates permitted in EU (except virgin oils and olive oils) **Japan, RF:** Discontinue **CEFIC:** sequestrant, similar to sodium citrates **Multiple members**: support e-WG proposal
TRIPOTASSIUM CITRATE	332(ii)	GMP		7	Sequestrant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
TRISODIUM CITRATE	331(iii)	GMP		7	Sequestrant	Adopt with note 277 - conforms to corresponding standards	**Japan:** INS 331(i) is listed as "antioxidant synergist" in corresponding commodity standards but not the INS. Propose functional class of "antioxidant be added to INS 331(i) in CAC/GL 36-1989. **CEFIC:** sequestrant; authorized at QS (GMP) level in Europe with exception for "virgin oils and virgin olive oils." **Multiple members**: support e-WG proposal
XANTHAN GUM	415	10000		4	Foaming agent	Discontinue	**Multiple members**: support e-WG proposal

Food Category <u>No. 02.1.3 (Lard, tallow, fish oil, and other animal fats)</u>

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are <u>not</u> justified in this FC on a general basis

Corresponding commodity standards: 019-1981: allows specific antioxidants, antioxidant synergists, and anti-foaming agents; 211-1999: allows specific antioxidants, antioxidant synergists.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[14]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		7	Sequestrant	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Not currently allowed in corresponding standards.	
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		**Indonesia:** Does not support any proposal to Discontinue
ALGINIC ACID	400	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		**Indonesia:** Does not support any proposal to Discontinue
AMMONIUM ALGINATE	403	5000		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		

[14] General comments on FC: **Brazil:** possible to discuss these provisions even if CCFO is not finished; **Multiple members**: support e-WG proposal

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[14]
CALCIUM ALGINATE	404	5000		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		7	Antioxidant, Flour treatment agent, Sequestrant	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Currently allowed in corresponding standards at 100 mg/kg.	
GUM ARABIC (ACACIA GUM)	414	15000		7	Bulking agent, Carrier, Glazing agent	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Not currently allowed in corresponding standards.	
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	80000		7	Sequestrant		
LECITHIN	322(i)	30000		7	Antioxidant		**EU:** permitted in EU (except virgin oils and olive oils) **ELC:** adopt. widely used as an antioxidant for fats and oils. In particular it is effective as a synergist in combination with tocopherols, or other antioxidants.
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	100000		7	Antifoaming agent		**Indonesia:** Does not support any proposal to Discontinue
PECTINS	440	GMP		7	Gelling agent		
POTASSIUM ALGINATE	402	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[14]
					Humectant, Sequestrant		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP		7	Sequestrant		**EU, CEFIC:** citrates permitted in EU at QS (GMP) level
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
SODIUM ALGINATE	401	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		**Indonesia:** Does not support any proposal to Discontinue
SODIUM DIHYDROGEN CITRATE	331(i)	GMP		7	Sequestrant	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Currently allowed in corresponding standards at GMP.	**CEFIC:** sequestrant; authorized at QS (GMP) level in Europe
TARA GUM	417	GMP		7	Gelling agent	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Not currently allowed in corresponding standards.	
TRICALCIUM CITRATE	333(iii)	GMP		7	Sequestrant		**EU, CEFIC:** citrates permitted in EU at QS (GMP) level
TRIPOTASSIUM CITRATE	332(ii)	GMP		7	Sequestrant		**EU, CEFIC:** citrates permitted in EU at QS (GMP) level
TRISODIUM CITRATE	331(iii)	GMP		7	Sequestrant	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Currently allowed in corresponding standards at GMP.	
XANTHAN GUM	415	10000		4	Foaming agent	Hold until the CCFO completes its work on the Codex Standard for Fish Oils. Not currently allowed in corresponding standards.	**ELC:** agrees to discontinue this provision.

Food Category No. 02.2.1 (Butter)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis

Corresponding commodity standards: 279-1971: refers to provisions in FC 02.2.1 in Tables 1 & 2.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUM ARABIC (ACACIA GUM)	414	GMP		4	Bulking agent, Carrier, Glazing agent	Discontinue	**Multiple members**: support e-WG proposal

Food Category No. 04.1.1.2 (Surface treated fresh fruit)

Horizontal approach (FA/46 CRD 2 Appendix II): Hold decision on horizontal justification of ES&T in this FC until discussion on additives in additives.

Corresponding commodity standards: 143-1985 (Codex Standard for Dates): allows only glycerol and sorbitol (INS 420) at GMP (Standard does not address coatings).

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[15]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	16[16]	7	Sequestrant	Hold provisions to consider use as ES&T after the discussion of the eWG on additives in additives	
ACETYLATED DISTARCH PHOSPHATE	1414	GMP	16	7	Emulsifier, Stabilizer, Thickener		
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
ALGINIC ACID	400	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
AMMONIUM ALGINATE	403	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		

[15] General comments for Food Category: **IFAC:** food additives with an emulsifier, stabilizer, thickener function should be horizontally justified in this category with a with note 3 "surface treatment." According to CODEX STAN 192-1995, "The surfaces of certain fresh fruit are coated with glazes or waxes or are treated with other food additives that act as protective coatings and/or help to preserve the freshness and quality of the fruit. Examples include apples, oranges, dates, and longans." – supports e-WG proposal; **Multiple members**: support e-WG proposal.

[16] **Note 16:** For use in glaze, coatings or decorations for fruit, vegetables, meat or fish only.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[15]
CALCIUM ALGINATE	404	GMP		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CAROB BEAN GUM	410	GMP		7	Emulsifier, Stabilizer, Thickener		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	16	7	Antioxidant, Flour treatment agent, Sequestrant		
GELLAN GUM	418	GMP		7	Stabilizer, Thickener		
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener		
GUM ARABIC (ACACIA GUM)	414	GMP	16	7	Bulking agent, Carrier, Glazing agent		
HYDROXYPROPYL CELLULOSE	463	GMP	16	7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP	16	7	Bulking agent, Glazing agent		
HYDROXYPROPYL STARCH	1440	GMP	16	7	Emulsifier, Stabilizer, Thickener		
KARAYA GUM	416	GMP		7	Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP	16	7	Sequestrant		
LECITHIN	322(i)	GMP	16	7	Antioxidant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[15]
MAGNESIUM CHLORIDE	511	GMP	16	7	Colour retention agent, Firming agent		
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener		
METHYL CELLULOSE	461	GMP	16	7	Bulking agent, Glazing agent		
METHYL ETHYL CELLULOSE	465	GMP	16	7	Foaming agent		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	16	7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP	16	7	Antifoaming agent		
OXIDIZED STARCH	1404	GMP	16	7	Emulsifier, Stabilizer, Thickener		
PECTINS	440	GMP		7	Gelling agent		
POTASSIUM ALGINATE	402	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
POWDERED CELLULOSE	460(ii)	GMP	16	7	Anticaking agent, Bulking agent, Glazing agent, Humectant		
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[15]
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP	16 & 71[17]	7	Anticaking agent		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP	16	7	Anticaking agent		
SODIUM ALGINATE	401	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	16	7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		**Japan**: used in Japan to keep from drying out
TARA GUM	417	GMP		7	Gelling agent		
TRAGACANTH GUM	413	GMP	16	7	Emulsifier, Stabilizer, Thickener		
XANTHAN GUM	415	GMP		7	Foaming agent		

Food Category <u>No. 04.1.1.3 (Peeled or cut fresh fruit)</u>

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are <u>not</u> justified in this FC on a general basis

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with note "as glazing agent". The	**EU:** Requests clarification of foods which utilize additive. **RF:** "...may contain additives" means antioxidants. Not

[17] **Note 71:** Calcium, potassium and sodium salts only.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	descriptor for parent FC 04.1.1 states "…fresh fruit that is coated or cut or peeled for presentation to the consumer may contain additives"	allowed in RF. **IFAC:** used as a glazing in some foods that fall into this food category. Glazing agents may be used in cut or peeled fruit to prevent browning or otherwise protect parts of the fruit that would not normally be exposed to the air.
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
PECTINS	440	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal.
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with note "as glazing agent". The descriptor for parent FC 04.1.1 states "…fresh fruit that is coated or cut or peeled for presentation to the consumer may contain additives"	**EU:** Requests clarification of foods which utilize additive. **Japan:** supports e-WG proposal for INS 466. **RF:** "...may contain additives" means antioxidants. Not allowed in RF. **IFAC:** used as a glazing in some foods that fall into this food category. Glazing agents may be used in cut or peeled fruit to prevent browning or otherwise protect parts of the fruit that would not normally be exposed to the air.
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		4	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		
TARA GUM	417	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal.
XANTHAN GUM	415	GMP		7	Foaming agent		**ELC:** Xanthanm gum is used to bind moisture when the fruit releases it, not as a foaming aid. **Multiple members**: support e-WG proposal.

Food Category No. 04.2.1 (Fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis. However, the use of ES&T in subcategory 04.2.1.2 was placed on hold for a decision on additives in additives.
(FA45/CRD 2, Appendix V): Acidity regulators are not justified in this FC on a general basis or in subcategories 04.2.1.2 or 04.2.1.3. However, acidity regulators are justified in FC 04.2.1.1 with the Note "For use in edible fungi and fungus products." (i.e. Note 262).

Corresponding commodity standards: None; subcategories have corresponding commodity standards.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUM ARABIC (ACACIA GUM)	414	83000	79[18]	7	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener	Consider ES&T use in subcategories as per Appendix 2	**EU, RF:** use of additives in unprocessed foods could mislead consumers.
SODIUM DIHYDROGEN CITRATE	331(i)	GMP		7	Acidity Regulator, Sequestrant, Emulsifier, Stabilizer		**EU:** move to FC 04.2.1.3, restrict use to refrigerated unprocessed vegetables ready for consumption and prepacked unprocessed and peeled potatoes **RF:** use of additives in unprocessed foods could mislead consumers. Not allowed in RF.
TRISODIUM CITRATE	331(iii)	2000		7	Acidity Regulator, Sequestrant, Emulsifier, Stabilizer		

[18] **Note 79:** For use on nuts only.

Food Category No. 04.2.1.1 (Untreated fresh vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes (including soybeans), and aloe vera), seaweeds and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.
(FA45/CRD 2, Appendix V): Acidity regulators are justified with the Note "For use in edible fungi and fungus products." (i.e. Note 262).

Corresponding commodity standards: 038-1981: allows specific acidity regulators in edible fungi and fungus product; 40R-1981, 131-1981, 171-1989, 185-1993, 186-1993, 188-1993, 197-1995, 200-1995, 218-1999, 224-2001, 225-2001, 238-2003, 293-2008, 300-2010, 303-2011, 304R-2011, 307-2011: do not allow food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 04.2.1.2 (Surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): hold decision on horizontal justification of ES&T in this FC until discussion on additives in additives.
(FA45/CRD 2, Appendix V): Acidity regulators are not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[16]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	16	7	Sequestrant	Hold provisions to take into consideration ES&T Function after the work of the eWG on additives in additives	
ACETYLATED DISTARCH PHOSPHATE	1414	GMP	16	7	Emulsifier, Stabilizer, Thickener		
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
ALGINIC ACID	400	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
AMMONIUM ALGINATE	403	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CALCIUM ALGINATE	404	GMP		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[16]
					Humectant, Sequestrant		
CALCIUM CARBONATE	170(i)	GMP	4[19] & 16	7	Anticaking agent, Colour, Firming agent, Flour treatment agent		
CALCIUM CHLORIDE	509	800	58[20]	7	Firming agent		
CALCIUM SULFATE	516	800	58	7	Acidity regulator, Firming agent, Flour treatment agent, Sequestrant, Stabilizer		
CAROB BEAN GUM	410	GMP		7	Emulsifier, Stabilizer, Thickener		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	16	7	Antioxidant, Flour treatment agent, Sequestrant		
GELLAN GUM	418	GMP		7	Stabilizer, Thickener		
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener		
HYDROXYPROPYL CELLULOSE	463	GMP	16	7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP	16	7	Bulking agent, Glazing agent		
HYDROXYPROPYL STARCH	1440	GMP	16	7	Emulsifier, Stabilizer, Thickener		
KARAYA GUM	416	GMP		7	Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent,		

[19] **Note 4:** For use in decoration, stamping, marking or branding the product only.
[20] **Note 58:** As calcium.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[16]
					Glazing agent, Humectant		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP	16	7	Sequestrant		
LECITHIN	322(i)	GMP	16	7	Antioxidant		
MAGNESIUM CHLORIDE	511	GMP	16	7	Colour retention agent, Firming agent		
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener		
METHYL CELLULOSE	461	GMP	16	7	Bulking agent, Glazing agent		
METHYL ETHYL CELLULOSE	465	GMP	16	7	Foaming agent		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	16	7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP	16	7	Antifoaming agent		
OXIDIZED STARCH	1404	GMP	16	7	Emulsifier, Stabilizer, Thickener		
PECTINS	440	GMP		7	Gelling agent		
POTASSIUM ALGINATE	402	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP	16	7	Sequestrant		
POWDERED CELLULOSE	460(ii)	GMP	16	7	Anticaking agent, Bulking agent, Glazing agent, Humectant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[16]
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP	16 & 71	7	Anticaking agent		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP	16	7	Anticaking agent		
SODIUM ALGINATE	401	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	16	7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		**Japan**: used in Japan to keep from drying out
TARA GUM	417	GMP		7	Gelling agent		
TRAGACANTH GUM	413	GMP	16	7	Emulsifier, Stabilizer, Thickener		
TRIPOTASSIUM CITRATE	332(ii)	GMP	16	7	Sequestrant		
XANTHAN GUM	415	GMP		7	Foaming agent		

Food Category No. 04.2.1.3 (Peeled, cut or shredded fresh vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.
(FA45/CRD 2, Appendix V): Acidity regulators are not justified in this FC on a general basis

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with note "as glazing agent". Note that the descriptor for parent FC 04.2.1 states "…fresh fruit that is coated or cut or peeled for presentation to the consumer may contain additives"	**EU:** Requests clarification of foods which utilize additive. **RF:** "...may contain additives" means antioxidants. Not allowed in RF. **IFAC:** used as a glazing in some foods that fall into this food category. Glazing agents may be used in cut or peeled fruit to prevent browning or otherwise protect parts of the fruit that would not normally be exposed to the air.
CALCIUM CHLORIDE	509	800	58	7	Firming agent	Discontinue	**Multiple members**: support e-WG proposal.
CALCIUM SULFATE	516	800	58	7	Acidity regulator, Firming agent, Flour treatment agent, Sequestrant, Stabilizer	Discontinue	**Multiple members**: support e-WG proposal.
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with note "as glazing agent". Note that the descriptor for parent FC 04.2.1 states "…fresh fruit that is coated or cut or peeled for presentation to the consumer may contain additives"	**EU:** Requests clarification of foods which utilize additive. **RF:** "...may contain additives" means antioxidants. Not allowed in RF. **IFAC:** used as a glazing in some foods that fall into this food category. Glazing agents may be used in cut or peeled fruit to prevent browning or otherwise protect parts of the fruit that would not normally be exposed to the air.
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		
PECTINS	440	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal.
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with note "as glazing agent". Note that the descriptor for parent FC 04.2.1 states "…fresh fruit that is coated or cut or peeled for presentation to the consumer may contain	**EU:** Requests clarification of foods which utilize additive. **Japan:** adopt, use in japan to keep from drying out. **RF:** "...may contain additives" means antioxidants. Not allowed in RF. **IFAC:** used as a glazing in some foods that fall into this food category. Glazing agents may be
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		4	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
						additives"	used in cut or peeled fruit to prevent browning or otherwise protect parts of the fruit that would not normally be exposed to the air.
TARA GUM	417	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal. **ELC:** INS 415 binds moisture when shredded/chopped fresh veggies release it. Not used for nuts and seeds or as a foaming agent.
XANTHAN GUM	415	GMP		7	Foaming agent		

Food Category No. 04.2.2.1 (Frozen vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: 038-198, 140-1983, allow only specific additives, 114-1981: only allows specific Sequestrants/processing aids; 41-1981, 110-1981, 111-1981, 77-1981, 112-1981, 113-1981, 133-1981, 132-1981, & 104-1981: do not allow food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Discontinue	**Multiple members**: support e-WG proposal.
CALCIUM CHLORIDE	509	4000		7	Firming agent	Adopt with Notes "for use as firming agent" and Note 29 "For use in non-standardized food only" - comments presented in CX/FA 13/45/7 state firming agents needed in frozen vegetables, but not allowed in corresponding commodity standards	**EU:** Requests information on identity of non-standardized products and if use misleads consumer as to quality and freshness **Thailand:** used to improve firmness and extend shelf-life. Strengthens cell wall structure and prevents the destruction of cell compartments during freezing of vegetables which cell walls can be damaged easily (e.g. aloe vera). **RF:** supports proposal
CALCIUM SULFATE	516	3500		7	Acidity regulator, Firming agent, Flour treatment agent, Sequestrant, Stabilizer		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Discontinue – no information on use provided	**Multiple members**: support e-WG proposal.
GUM ARABIC (ACACIA GUM)	414	83000		7	Bulking agent, Carrier, Glazing agent		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
LECITHIN	322(i)	GMP		7	Antioxidant		**India**: allowed as an antioxidant in India all foods **Multiple members**: support e-WG proposal
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		**Multiple members**: support e-WG proposal
PECTINS	440	20000		7	Gelling agent		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP		7	Sequestrant		**Multiple members**: support e-WG proposal **CEFIC:** Citrates are used as sequestrant in the processing of frozen vegetables (as in frozen fruits) and are authorised in Europe at QS (GMP)
POWDERED CELLULOSE	460(ii)	GMP		7	Anticaking agent, Bulking agent, Glazing agent, Humectant		**Multiple members**: support e-WG proposal
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP		7	Anticaking agent		
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		4	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant	Adopt with Notes "for use as firming agent" and Note 29 "For use in non-standardized food only" - comments presented in CX/FA 13/45/7 state firming agents needed in frozen vegetables, but not allowed in corresponding commodity standards	**EU:** Requests information on identity of non-standardized products and if use misleads consumer as to quality and freshness **Japan**: used in Japan to keep from drying out **RF, IFCA:** supports proposal **IFAC:** firming agents help to ensure frozen vegetables maintain the crisp texture of vegetables after they are frozen. This ensures frozen vegetables maintain a desired texture

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
SODIUM DIHYDROGEN CITRATE	331(i)	GMP		7	Sequestrant	Adopt with Note 29 "For use in non-standardized food only" - comments presented in CX/FA 13/45/7 state use in frozen vegetables, but not allowed in corresponding commodity standards	**EU, CEFIC:** citrates used as sequestrants in frozen vegetables. Citrates support antioxidants to prevent discoloration resulting from oxidation of colour producing substances **RF:** Not allowed in RF.
TARA GUM	417	GMP		7	Gelling agent	Discontinue	**Multiple members**: support e-WG proposal
TRICALCIUM CITRATE	333(iii)	GMP		7	Sequestrant	Adopt with Note 29 "For use in non-standardized food only"	**EU, CEFIC:** citrates used as sequestrants in frozen vegetables. Citrates support antioxidants to prevent discoloration resulting from oxidation of colour producing substances **RF:** Not allowed in RF.
TRIPOTASSIUM CITRATE	332(ii)	GMP		7	Sequestrant		
TRISODIUM CITRATE	331(iii)	GMP		7	Sequestrant		
XANTHAN GUM	415	GMP		7	Foaming agent	Discontinue	**Multiple members**: support e-WG proposal **ELC:** would be used more to bind moisture when the shredded/chopped fresh veggies release it. It would not be used for nuts and seeds and not as a foaming agent.

Food Category No. 06.1 (Whole, broken, or flaked grain, including rice)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: 202-1995: does not allow food additives; 169-1989, 201-1995, 172-1989, 153-1985, 199-1995, 198-1995: do not discuss food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		7	Sequestrant	Discontinue	**Multiple members**: support e-WG proposal
CALCIUM CARBONATE	170(i)	2220	184[21]	7	Anticaking agent, Colour, Firming agent, Flour treatment agent	Discontinue – vitamin supplement is not a food	**Brazil, RF:** Not allowed in Brazil, RF. **EU:** adopt with Note 184 "For use in nutrient coated rice grain premixes only" **USA:** allowed in USA in enriched rice as a vitamin

[21] **Note 184:** For use in nutrient coated rice grain premixes only.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
						additive use	supplement up to ~ 2200 mg/kg (as calcium) **CX/FA 14/46/8 Add 1, Appendix 1** - Adopt with new note "For use as anticaking agent"
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		7	Sequestrant	Discontinue	**Multiple members**: support e-WG proposal
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP		7	Antifoaming agent		**Multiple members**: support e-WG proposal **EFEMA:** adopt; can be used to reduce foaming when cooking rice
TARA GUM	417	GMP		7	Gelling agent		**Multiple members**: support e-WG proposal

Food Category No. 06.2 (Flours and starches (including soybean powder))

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are <u>not</u> justified in this FC on a general basis. However, they are justified in subcatgory 06.2.1 with the Note " For use at GMP in full fat soy flour only."

Corresponding commodity standards: None; subcategory 06.2.1 has corresponding commodity standards.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM CARBONATE	170(i)	10000	58	4	Anticaking agent, Colour, Firming agent, Flour treatment agent	Discontinue - no information on use in FC 06.2.2 provided - use in flours covered by proposed (INS 170(i)) and adopted (INS 322(i)) provision in FC 06.2.1	**Brazil:** allowed at 10000 mg/kg. **Multiple members**: support e-WG proposal
LECITHIN	322(i)	5000		7	Antioxidant		**India**: use as antioxidant is allowed in all foods
TRISODIUM CITRATE	331(iii)	GMP		4	Sequestrant	Consider ES&T use in subcategories as per Appendix 2	

Food Category No. 06.2.1 (Flours)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are justified with the Note " For use at GMP in full fat soy flour only."
(FA45/CRD 2, Appendix V): Acidity regulators are not justified in this FC on a general basis

Corresponding commodity standards: 301R-2011: references FC 06.2.1 Tables 1 & 2; 176-1989, 154-1985, 173-1989, 170-1989, 178-1991, 155-1985: do not discuss food additives; 152-1985: only lists enzymes and flour treatment agents.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM CARBONATE	170(i)	GMP	57[22]	7	Anticaking agent, Colour, Firming agent, Flour treatment agent, Stabilizer	Adopt with note "excluding products conforming to CODEX STAN 152-1985" - both have the tech function of "flour treatment agent" - pWG to 46th CCFA noted these additives are not used as ES&T in this FC (see REP14/FA para 62)	**Brazil:** allowed at 10000 mg/kg. **EU, RF:** Discontinue. **USA:** allowed in USA in flour as a vitamin supplement up to 2,100 mg/kg (as calcium)
CALCIUM SULFATE	516	GMP	57	7	Acidity regulator, Firming agent, Flour treatment agent, Sequestrant, Stabilizer		**Brazil**: allowed at GMP. **EU, RF:** Discontinue. **USA:** allowed in USA as a flour treatment agent (bleaching agent) up to 60,000 mg/kg

Food Category No. 06.2.2 (Starches)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

[22] **Note 57:** GMP is 1 part benzoyl peroxide and not more than 6 parts of the subject additive by weight.

Food Category No. 06.4.1 (Fresh pastas and noodles and like products)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are justified in noodles on a general basis, case-by-case in pasta.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		2	Sequestrant, Emulsifier, Stabilizer	Consider ES&T use in subcategories as per Appendix 2 – no information on non-ES&T use provided	**Brazil:** Not allowed in Brazil. **Japan:** used as a stabilizer to maintain organoleptic property of noodles by retaining water within the food.
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		2	Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		2	Sequestrant, Emulsifier, Stabilizer		

Food Category No. 06.4.2 (Dried pastas and noodles and like products)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&Ts are justified on a general basis with the note "For use in noodles, gluten-free pasta and pasta intended for hypoproteic diets only." (i.e. Note 256).

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
DEXTRINS, ROASTED STARCH	1400	GMP		2	Carrier, Emulsifier, Stabilizer, Thickener	Consider ES&T use in subcategories as per Appendix 2	**Brazil:** Not allowed in Brazil.

Food Category No. 08.1 (Fresh meat, poultry, and game)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&Ts are not justified in this FC on a general basis. However, ES&Ts are justified in subcategories 08.1.1 (with note) and 08.1.2.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing	Consider in Appendix 2 –	**Brazil:** technological function "glazing agent" is not applicable to meat in accordance with the definition of

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					agent, Humectant	result of ES&T discussion may also apply to glazing agent use	CAC/GL 36-1989. **IFAC:** glazing agents may be used in this FC as per the descriptor "coatings, such as glazes and spice rubs, may be applied to meat products prior to marketing to the consumer (e.g. glazed ham, and barbecued chicken). In the Food Category System, this is indicated with a notation for "use as a glaze or coating (surface treatment)." It should be noted that the coatings marketed per se are included in food categories 04.1.2.8 (fruit-based glazes, e.g. for ham) and 12.2 (spice rubs)."
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener	Consider ES&T use in subcategories as per Appendix 2	
PECTINS	440	GMP		7	Gelling agent		
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Consider in Appendix 2 – result of ES&T discussion may also apply to glazing agent use	
TARA GUM	417	GMP		7	Gelling agent	Consider ES&T use in subcategories as per Appendix 2	
XANTHAN GUM	415	GMP		7	Foaming agent		

Food Category <u>No. 08.1.1 (Fresh meat, poultry, and game, whole pieces or cuts)</u>

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified with Note "For use in glaze, coatings or decorations for fruit, vegetables, meat or fish." (i.e. Note 16).

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 08.1.2 (Fresh meat, poultry, and game, comminuted)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis. However, during discussion of this FC during the plenary, the Note "For use only in fresh minced meat which contains other ingredients apart from comminuted meat." was added to all provisions for ES&T recommended for adoption (see REP14 FA Appendix IX).

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 09.1 (Fresh fish and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified on a general basis in this FC or its subcategories.

Corresponding commodity standards: None; 292-2008 & 312-2013 correspond to subcategory 09.1.2, food additives not allowed in live bivalve molluscs live abalone or raw, fresh, chilled or frozen abalone. Only antioxidants allowed in raw bivalve molluscs (chilled shucked molluscs) as per provisions in FC 09.1.2.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[23]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	16	7	Sequestrant	Discontinue	
CARRAGEENAN	407	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	16	7	Antioxidant, Flour treatment agent, Sequestrant	Refer to CCFFP for use as antioxidant. Note previous recommendation for other antioxidants in CX/FA 14-46-9 Appendix 1 of "Adopt with note "Excluding live bivalve molluscs".	**EU:** ascorbic acid and ascorbates are used as antioxidants in fresh fish. However, the EU is not aware of the use /need for INS 472c (which acts as an antioxidant synergist) in this food category. **Japan, IFAC:** support proposal **Norway:** Move to appropriate subcategories. Request CCFFP to clarify allowance in CS 292-2008 for antioxidants in FC 09.1.2 when majority are not yet adopted. **Note:** the only antioxidants adopted in FC 09.1.2 are Sulfites.

[23] General Comments: **EU:** generally does not support the use of additives in such products. According to the descriptor the term "fresh" refers to products that are untreated except for refrigeration, storage on ice, or freezing upon catching. **RF:** use of additives in unprocessed food could mislead consumers.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[23]
GUM ARABIC (ACACIA GUM)	414	GMP	16	7	Bulking agent, Carrier, Glazing agent	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
HYDROXYPROPYL CELLULOSE	463	GMP	16	7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP	16	7	Bulking agent, Glazing agent		
KONJAC FLOUR	425	GMP		4	Carrier, Gelling agent, Glazing agent, Humectant		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP	16	7	Sequestrant	Discontinue	**Multiple members**: support e-WG proposal
LECITHIN	322(i)	GMP	16	7	Antioxidant	Refer to CCFFP for use as antioxidant. Note previous recommendation for other antioxidants in CX/FA 14-46-9 Appendix 1 of "Adopt with note "Excluding live bivalve molluscs".	**EU:** ascorbic acid and ascorbates are used as antioxidants in fresh fish. However, the EU is not aware of the use /need for INS 472c (which acts as an antioxidant synergist) in this food category. **Japan, IFAC:** support proposal **Norway:** Move to appropriate subcategories. Request CCFFP to clarify allowance in CS 292-2008 for antioxidants in FC 09.1.2 when majority are not yet adopted. **Note:** the only antioxidants adopted in FC 09.1.2 are Sulfites.
MAGNESIUM CHLORIDE	511	GMP	16	7	Colour retention agent, Firming agent	Discontinue	**Multiple members**: support e-WG proposal
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener		
METHYL CELLULOSE	461	GMP	16	7	Bulking agent, Glazing agent	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
METHYL ETHYL CELLULOSE	465	GMP	16	7	Foaming agent	Discontinue	**Multiple members**: support e-WG proposal

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[23]
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	16	7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP	16	7	Antifoaming agent	Discontinue	**Multiple members**: support e-WG proposal
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP		7	Sequestrant	Discuss use as Sequestrant in this FC	**Australia:** Permitted in AUS at GMP in uncooked crustacea **EU**: Does not support provision **RF**: adopt **CEFIC:** Citrates are used as sequestrant in fresh fish and fish products, including mollusks, crustaceans and echinoderms and are authorised in Europe (QS (GMP))
POWDERED CELLULOSE	460(ii)	GMP	16	7	Anticaking agent, Bulking agent, Glazing agent, Humectant	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP		4	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP	16 & 71	7	Anticaking agent	Discontinue	**Multiple members**: support e-WG proposal
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP	16	7	Anticaking agent		
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant	Discuss use of glazing agents in this FC	**EU:** does not support provision **IFAC**: glazing agents may be used in this FC.
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	16	7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant	Discuss use as glazing agent/humectant in this FC	**EU:** does not support provision **Japan:** used in Japan to keep from drying out (Humectant) **IFAC**: glazing agents may be used in this FC.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[23]
SODIUM DIHYDROGEN CITRATE	331(i)	GMP		7	Sequestrant	Discuss use as Sequestrants in this FC – Corresponding Commodity Standards do not list Sequestrants.	**Comments do not apply to INS 576:** **Australia**: Cirates permitted in AUS at GMP in uncooked crustacea **EU**: accepts citrates as Sequestrants **RF**: adopt provisions for citrates **CEFIC:** Citrates are used as sequestrant in fresh fish and fish products, including mollusks, crustaceans and echinoderms and are authorised in Europe at QS (GMP)
SODIUM GLUCONATE	576	GMP		4	Sequestrant		
TRICALCIUM CITRATE	333(iii)	GMP		7	Sequestrant		
TRIPOTASSIUM CITRATE	332(ii)	GMP		7	Sequestrant		
TRISODIUM CITRATE	331(iii)	GMP		7	Sequestrant		

Food Category No. 09.1.1 (Fresh Fish)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified on a general basis in this FC.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 09.1.2 (Fresh mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified on a general basis in this FC.

Corresponding commodity standards: 292-2008 and 312-2013: food additives not allowed in live bivalve molluscs live abalone or raw, fresh, chilled or frozen abalone. Only antioxidants allowed in raw bivalve molluscs (chilled shucked molluscs) as per provisions in FC 09.1.2.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM CARBONATE	170(i)	GMP	4 & 16	7	Anticaking agent, Colour, Firming agent, Flour treatment agent	Discontinue	**Multiple members**: support e-WG proposal

Food Category No. 09.2 (Processed fish and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified on a general basis in this FC. However, they are justified in subcategories 09.2.1, 09.2.2, 09.2.4.1, 09.2.4.3, and 09.2.5 with specific notes, and in 09.2.3 on a general basis.

Corresponding commodity standards: None; subcategories have corresponding commodity standards, some of which do not allow food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ALGINIC ACID	400	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant	Consider ES&T use in subcategories as per Appendix 2	**Multiple members**: supports e-WG proposal. **IFAC**: used in re-structured or re-formed food products. For example, processed fish products can be made by taking pieces of fish, binding them together to form products like fish sticks. Has gelling function (holds the pieces of fish together).Also functions as humectant keeping these products moist after processing and freezing. Also, glazing agents can be applied to the surface of these products to provide a protective coating, This is particularly important when the products are frozen after processing.
CALCIUM CARBONATE	170(i)	10000	58	4	Acidity Regulator, Anticaking agent, Colour, Firming agent, Flour treatment agent, Stabilizer	Discontinue - provisions at GMP already adopted for INS 170(i) in all subcategories of FC 09.2	**Multiple members**: supports e-WG proposal.
CALCIUM CHLORIDE	509	10000	58	4	Firming agent	Consider ES&T use in subcategories as per Appendix 2	**Multiple members**: supports e-WG proposal.
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant		**Multiple members**: supports e-WG proposal. **IFAC**: used in re-structured or re-formed food products. For example, processed fish products can be made by taking pieces of fish, binding them together to form products like fish sticks. Has gelling function (holds the pieces of fish together). Also functions as humectant keeping these products moist after processing and freezing. Also, glazing agents can be applied to the surface of these products to provide a protective coating, This is particularly important when the products are frozen after processing.
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	10000		7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent		**Multiple members**: supports e-WG proposal.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	10000		7	Antifoaming agent		
POTASSIUM CHLORIDE	508	GMP		4	Flavour enhancer		
SODIUM GLUCONATE	576	GMP		4	Sequestrant		

Food Category No. 09.2.4 (Cooked and/or fried fish and fish products, including molluscs, crustaceans, and echinoderms)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC. However, ES&T are justified in subcategories 09.2.4.1 and 09.2.4.3 with specific Notes
(FA45/CRD 2, Appendix V): Acidity Regulators are justified in this FC on a general basis.

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		7	Sequestrant	Consider ES&T use in subcategories as per Appendix 2	
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Adopt with Note 241 "For use in surimi products only"	**RF:** used in RF at GMP **IFAC:** used in surimi products as a gelling agent and humectant. As a gelling agent, it helps ensure a consistent and desirable texture. As a humectant, it helps to prevent the product retain moisture if it is frozen.
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		7	Antioxidant, Flour treatment agent, Sequestrant	Consider ES&T use in subcategories as per Appendix 2	**RF:** used in RF at GMP **Multiple members**: support e-WG proposal
GUM ARABIC (ACACIA GUM)	414	GMP		7	Bulking agent, Carrier, Glazing agent		
HYDROXYPROPYL CELLULOSE	463	GMP		7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP		7	Bulking agent, Glazing agent		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		7	Sequestrant		
LECITHIN	322(i)	GMP		7	Antioxidant		**India:** allowed as an antioxidant in India all foods **RF:** used in RF at GMP **Multiple members**: support e-WG proposal
MAGNESIUM CHLORIDE	511	GMP		7	Colour retention agent, Firming agent		**RF:** used in RF at GMP as carrier and firming agent **Multiple members**: support e-WG proposal
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener		**Multiple members**: support e-WG proposal
METHYL CELLULOSE	461	GMP		7	Bulking agent, Glazing agent		
METHYL ETHYL CELLULOSE	465	GMP		7	Foaming agent		
PECTINS	440	GMP		7	Gelling agent		
POLYDEXTROSES	1200	GMP		7	Bulking agent, Glazing agent, Humectant		
POWDERED CELLULOSE	460(ii)	GMP		7	Anticaking agent, Bulking agent, Glazing agent, Humectant		**RF:** used in RF at GMP
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP		7	Anticaking agent		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP		7	Anticaking agent		
SODIUM ALGINATE	401	GMP		4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant	Adopt with Note 241 "For use in surimi products only"	**Japan:** (INS 466) used in Japan to keep from drying out **RF:** used in RF at GMP **IFAC**: used in surimi products as a gelling agent and humectant. As a gelling agent, it helps ensure a

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP		7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		
TARA GUM	417	GMP		7	Gelling agent	**RF:** used in RF at GMP	**RF:** used in RF at GMP
XANTHAN GUM	415	GMP		7	Foaming agent		**RF:** used in RF at GMP **ELC:** discuss ES&T in subcategories

Food Category No. 10.2.1 (Liquid egg products)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM SULFATE	516	GMP		2	Firiming agent, Flour treatment agent, Sequestrant	Consider ES&T use in subcategories as per Appendix 2	**Multiple members**: support e-WG proposal
DEXTRINS, ROASTED STARCH	1400	GMP		2	Carrier, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP		2	Antifoaming agent, Emulsifier, Stabilizer		

Food Category No. 11.2 (Brown sugar, excluding products of food category 11.1.3 (soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar))

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		4	Anticaking agent, Bulking agent, Carrier, Foaming agent,	Further information on use?	**AUS:** permitted in AUS in sugar at GMP **EU:** Discontinue or provide information as per preamble. **RF:** used in RF at GMP as carrier, emulsifier,

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					Glazing agent		stabilizer, thickener. **CEFS:** FC covers only solid sugars, ES&T not justified, other technological functions are questioned.
POLYDEXTROSES	1200	GMP		7	Bulking agent, Glazing agent, Humectant		

Food Category No. 11.3 (Sugar solutions and syrups, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3 (soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar))

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP		4	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent	Discontinue	**CEFS:** 11.3 covers only liquid sugars, so use for non ES&T tech functions is questioned. ES&T is not justified. A mixture of sugar solutions and syrups with a foaming agent would rather be covered by food category 11.4 than by food category 11.3.
POLYDEXTROSES	1200	GMP		7	Bulking agent, Glazing agent, Humectant		

Food Category No. 12.2.1 (Herbs and spices)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis

Corresponding commodity standards: None – Note: Table 3 additives can be used in spices without provisions in this food category. The Annex to Table 3 only lists herbs.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[24]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	5000	51[25]	7	Sequestrant	Discontinue – non-ES&T use in herbs not clear from comments	**EU:** does not support provision **RF:** used in RF at GMP as carrier (colours and liposoluble antioxidants), emulsifier, stabilizer, thickener.
AGAR	406	GMP	51	7	Bulking agent, Carrier,		

[24] General Comment: **EU:** Very limited need for additives in herbs and spices. Herbs and Spices are different then seasonings (FC 12.2.2) which are blends of herbs and/or spices with other food ingredients for which more additives are needed.
[25] **Note 51:** For use in herbs only.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[24]
					Gelling agent, Glazing agent, Humectant		
ALGINIC ACID	400	GMP	51	4	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant		
CALCIUM CARBONATE	170(i)	10000	51& 58	4	Anticaking agent, Colour, Firming agent, Flour treatment agent	Adopt at GMP with no notes	**EU**: Does not support use. **Japan:** used to prevent spice powders from adhering to one another. The ML in Japan is 25000 mg/kg. Propose ML of GMP **RF:** used in RF at GMP as colour (surface), anticaking agent, carrier, stabilizer.
CALCIUM CHLORIDE	509	10000	51 & 58	4	Firming agent	Discontinue	
CARRAGEENAN	407	GMP	51	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Discontinue – non-ES&T use in herbs not clear from comments	**EU:** does not support provision **RF:** used in RF at GMP as carrier gelling agent, thickener.
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	51	7	Antioxidant, Flour treatment agent, Sequestrant		
GUM ARABIC (ACACIA GUM)	414	GMP	51	7	Bulking agent, Carrier, Glazing agent		**EU:** does not support provision **RF:** allowed in RF
HYDROXYPROPYL CELLULOSE	463	GMP	51	7	Foaming agent, Glazing agent		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP	51	7	Bulking agent, Glazing agent		
KONJAC FLOUR	425	GMP	51	7	Carrier, Gelling agent, Glazing agent, Humectant		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	5000	51	7	Sequestrant		
LECITHIN	322(i)	GMP	51	7	Antioxidant		**EU:** does not support provision **India**: allowed as antioxidant in India for all foods **RF:** allowed in RF
MAGNESIUM CHLORIDE	511	GMP	51	7	Colour retention agent,		**EU:** does not support provision

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[24]
					Firming agent		**RF:** allowed in RF
MANNITOL	421	60000	51	4	Anticaking agent, Bulking agent, Humectant, Sweetener		
METHYL CELLULOSE	461	GMP	51	7	Bulking agent, Glazing agent		
METHYL ETHYL CELLULOSE	465	GMP	51	7	Foaming agent		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	51	7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent	Adopt at GMP with no notes	**EU**: Does not support use. **Japan:** used to prevent spice powders from adhering to one another. The ML in Japan is 9000 mg/kg. Propose ML of GMP **RF:** used in RF at GMP
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	5000	51	7	Antifoaming agent	Discontinue – non-ES&T use in herbs not clear from comments	**EU:** does not support provision **RF:** allowed in RF
PECTINS	440	GMP	51	7	Gelling agent		
POLYDEXTROSES	1200	GMP	51	7	Bulking agent, Glazing agent, Humectant		
POTASSIUM CHLORIDE	508	GMP	51	4	Flavour enhancer		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP	51	7	Sequestrant	Adopt at GMP with no notes	**EU:** does not support provision **RF:** allowed in RF **CEFIC**: Citrates are used in herbs and spices (powder form) to improve the taste by modifying the acidity and or sequestering certain metals. Is authorised in EU although the definition of herbs and spices is not exactly the same as in tCodex. Example curry powder is under condiments in Europe.
POWDERED CELLULOSE	460(ii)	GMP	51	7	Anticaking agent, Bulking agent, Glazing agent, Humectant		**EU**: Does not support use. **Japan:** used to prevent spice powders from adhering to one another. The ML in Japan is GMP **RF:** used in RF at GMP
PROCESSED EUCHEUMA SEAWEED (PES)	407a	GMP	51	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant	Discontinue – non-ES&T use in herbs not clear	**EU:** does not support provision **RF:** allowed in RF

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[24]
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP	51	7	Anticaking agent	from comments	
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP	51	7	Anticaking agent		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	51	7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		
SODIUM DIHYDROGEN CITRATE	331(i)	GMP	51	7	Sequestrant	Adopt at GMP with no notes. Information provided that Sequestrants are used in this FC.	**EU:** Does not support use. **RF:** allowed in RF **CEFIC:** Citrates are used in herbs and spices (powder form) to improve the taste by modifying the acidity and or sequestering certain metals. Is authorised in EU although the definition in EU of herbs and spices is not exactly the same as in the Codex. Example: curry powder is under condiments in Europe.
SODIUM GLUCONATE	576	GMP	51	4	Sequestrant		
TARA GUM	417	GMP	51	7	Gelling agent	Discontinue	**RF:** allowed in RF
TRICALCIUM CITRATE	333(iii)	GMP	51	7	Sequestrant	Adopt at GMP with no notes. Information provided that Sequestrants are used in this FC	**EU:** Does not support use. **RF:** allowed in RF **CEFIC:** Citrates are used in herbs and spices (powder form) to improve the taste by modifying the acidity and or sequestering certain metals. Is authorised in EU although the definition in EU of herbs and spices is not exactly the same as in the Codex. Example: curry powder is under condiments in Europe.
TRIPOTASSIUM CITRATE	332(ii)	GMP	51	7	Sequestrant		
TRISODIUM CITRATE	331(iii)	GMP	51	7	Sequestrant		
XANTHAN GUM	415	GMP	51	7	Foaming agent	Discontinue	**RF:** allowed in RF **ELC:** no rational for use.

Food Category No. 13.1 (Infant formulae, follow-up formulae, and formulae for special medical purposes for infants)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: None, 072-1981 applies to subcategories 13.1.1 & 13.1.3; 156-1987 applies to subcategory 13.1.2

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUM ARABIC (ACACIA GUM)	414	GMP		4	Bulking agent, Carrier, Glazing agent	Hold pending consideration by CCNFSDU - not currently allowed in standards corresponding to subcategories	**EU, RF:** Discontinue **India**: supports e-WG proposal **Japan**: Hold this provision. Gum Arabic is used as a carrier to facilitate handling on fat soluble vitamins and is listed in the proposed draft revision of the list of food additives (CX/NFSDU 13/35/8). The food additive provision for Gum Arabic is under consideration in the CCNFSDU.

Food Category No. 13.1.1 (Infant formulae)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 072-1981: allows specific antioxidants and packaging gases, also allows specific acidity regulators.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 13.1.2 (Follow-up formulae)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 156-1987: allows specific antioxidants and flavours.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	300	72[26] & 151[27]	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener	Consider use as ES&T in Appendix 2 – comments indicate used as ES&T	

[26] **Note 72:** "on the ready-to-eat basis"
[27] **Note 151:** "Except for use in hydrolyzed protein and/or amino acid-based formula at 1 000 mg/kg."

Food Category No. 13.1.3 (Formulae for special medical purposes for infants)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 072-1981: allows specific antioxidants and packaging gases and acidity regulators.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	There are no provisions in this Food Category; included for information purposes only

Food Category No. 13.2 (Complementary foods for infants and young children)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 073-1981: allows specific antioxidants, flavours, packaging gasses; 74-1981: anticaking agents, raising agents, packaging gases, antioxidants.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	300	72 & 151	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener	Consider use as ES&T in Appendix 2 – comments indicate used as ES&T	

Food Category No. 14.1.2 (Fruit and vegetable juices)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in FC 14.1.2. However, ES&T are justified on a case-by-case basis in subcategories 14.1.2.1 and 14.1.2.3. ES&T are not justified in subcategories 14.1.2.2 & 14.1.2.4.

Corresponding commodity standards: None, 247-2005 corresponds to subcategory 14.1.2.1 & 14.1.2.3

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	440	3000		2	Gelling agent, Emulsifier, Stabilizer, Thickener	Consider ES&T use in subcategories as per Appendix 2	Comments submitted by multiple members, all discuss use as ES&Ts. Comments are compiled in Appendix 2.
XANTHAN GUM	415	3000		2	Foaming agent, Emulsifier, Stabilizer, Thickener		

Food Category No. 14.1.3 (Fruit and vegetable nectars)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis. However, ES&T are justified on a case-by-case basis for each of the subcategories.

Corresponding commodity standards: None, 247-2005 corresponds to subcategory 14.1.3.1

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	440	3000		2	Gelling agent, Emulsifier, Stabilizer, Thickener	Consider ES&T use in subcategories as per Appendix 2	Comments submitted by multiple members, all discuss use as ES&Ts. Comments are compiled in Appendix 2.
XANTHAN GUM	415	3000		2	Foaming agent, Emulsifier, Stabilizer, Thickener		

Food Category No. 14.2.3 (Grape wines)

Corresponding commodity standards: None

Other Considerations: This FC is under consideration by the eWG on FC 14.2.3 "Grape wines" and its subcategories - see REP 14/FA para. 72.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUM ARABIC (ACACIA GUM)	414	GMP		4	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener	Hold - provisions are under discussion by the eWG on FC 14.2.3 "grape wines" and its subcategories	**Multiple members:** support e-WG proposal **RF:** processing aids? **Japan:** INS 466 - used to prevent sedimentation of tartartic acid
GUM ARABIC (ACACIA GUM)	414	300		7	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	100		2	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant		

Food Category No. 14.2.3.3 (Fortified grape wine, grape liquor wine, and sweet grape wine)

Corresponding commodity standards: None

Other Considerations: This FC is under consideration by the eWG on FC 14.2.3 "Grape wines" and its subcategories - see REP 14/FA para. 72.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM SULFATE	516	2000		7	Acidity regulator, Firming agent, Flour treatment agent, Sequestrant, Stabilizer	Hold - provision is under discussion by the eWG on FC 14.2.3 "grape wines" and its subcategories	**Multiple members:** support e-WG proposal **RF:** used as acidity regulator

Appendix 2: Table 3 food additives for use as "emulsifier, stabilizer, thickener" or "acidity regulator"

Food Category No. 01.2 (Fermented and renneted milk products (plain) excluding food category 01.1.2 (dairy based drinks))

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this food category on a general basis. However, ES&T are justified in certain subcategories

Corresponding commodity standards: None, 243-2003 corresponds to subcategories 01.2.1.1 & 01.2.1.2

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[28]
~~AGAR~~	~~406~~	~~5000~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~	Consider ES&T use in subcategories	**Multiple members:** support e-WG proposal
~~CARRAGEENAN~~	~~407~~	~~5000~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~GUAR GUM~~	~~412~~	~~GMP~~		~~4~~	~~Emulsifier, Stabilizer, Thickener~~		
~~GUM ARABIC (ACACIA GUM)~~	~~414~~	~~GMP~~		~~4~~	~~Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener~~		
~~KONJAC FLOUR~~	~~425~~	~~GMP~~		~~4~~	~~Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~MONO- AND DI-GLYCERIDES OF FATTY ACIDS~~	~~471~~	~~5000~~		~~7~~	~~Antifoaming agent, Emulsifier, Stabilizer~~		
~~POLYDEXTROSES~~	~~1200~~	~~GMP~~		~~7~~	~~Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener~~		
~~PROCESSED EUCHEUMA SEAWEED (PES)~~	~~407a~~	~~5000~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		

[28] General comments: **EU:** Differences in the technological need for the sub-categories (especially between heat-treated and non-heat treated products) exist and the provisions of the commodity standard CS 243-2003 corresponding to FC 01.2.1.1 and 01.2.1.2 should be respected. **RF:** Technological justification for the expansion of the use of food additives in this food category should be provided. Such expansion could mislead consumers and reduce quality of these foods. Food additives are not necessary in fermented milk for obtain consistence of acid milk or in milk containing technological microorganisms.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[28]
~~SODIUM ALGINATE~~	~~401~~	~~GMP~~		~~4~~	~~Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener~~		
~~SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)~~	~~466~~	~~GMP~~		~~4~~	~~Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~XANTHAN GUM~~	~~415~~	~~GMP~~		4	~~Foaming agent, Emulsifier, Stabilizer, Thickener~~		

Food Category No. 01.2.1 (Fermented milks (plain), not heat-treated after fermentation)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this food category on a general basis. However, ES&T are justified in certain subcategories

Corresponding commodity standards: None, 243-2003 corresponds to subcategories 01.2.1.1 & 01.2.1.2

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal
There are no provisions in this Food Category for discussion by the p-WG; included for information purposes only.						No provisions would be moved from the parent category 01.2 based upon the horizontal approach that ES&T are not justified in the subcategory 01.2.1

Food Category No. 01.2.1.1 (Fermented milks (plain))

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified on a general basis with notes "For use as a stabilizer or thickener only"(i.e. Note 234) and "Use restricted to reconstitution and recombination only" (i.e. Note 235).

Corresponding commodity standards: 243-2003: allows various additives in various foods

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[29]
AGAR	**406**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent,**	Adopt at GMP with	**Thailand:** used as stabilizer in plain for improving texture of products

[29] General comments: **RF:** Technological justification for the expansion of the use of food additives in this food category should be provided. Such expansion could mislead consumers and reduce quality of these foods. Food additives are not necessary in fermented milk for obtain consistence of acid milk or in milk containing technological microorganisms. **IFAC:** use of Notes 234 & 235 corresponds to CODEX STAN 243-2003. **Multiple members:** support e-WG proposal

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[29]
					Humectant, Emulsifier, Stabilizer, Thickener	notes 234 & 235 as per horizontal approach	**Multiple members:** support e-WG proposal
CARRAGEENAN	**407**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
GUAR GUM	**412**	**GMP**			**Emulsifier, Stabilizer, Thickener**		**USA:** allowed in USA in milk products at 6,000 mg/kg as stabilizer/thickener
GUM ARABIC (ACACIA GUM)	**414**	**GMP**			**Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	**471**	**5000**			**Antifoaming agent, Emulsifier, Stabilizer**		
POLYDEXTROSES	**1200**	**GMP**			**Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener**		
PROCESSED EUCHEUMA SEAWEED (PES)	**407a**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
SODIUM ALGINATE	**401**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	**466**	**GMP**			**Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[29]
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		

Food Category No. 01.2.1.2 (Fermented milks (plain), heat-treated after fermentation)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: 243-2003: allows table 3 packaging gases in foods corresponding to this food category

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[30]
AGAR	**406**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP with Note 234 "For use as a stabilizer or thickener only" - although horizontal approach states ES&Ts allowed on a general basis, CODEX STAN 243-2003 limits use to stabilizer/thickener function only	**Japan**: used to prevent syneresis and separation of solids during storage by increasing the viscosity and reducing the fluidity.
CARRAGEENAN	407	GMP		2	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		**IFAC:** used as stabilizer/ thickener in applications when heat is applied after fermentation. Ensures a consistent thickness and uniformity of the product. Use level should be GMP.
GUAR GUM	**412**	**GMP**		**4**	**Emulsifier, Stabilizer, Thickener**		**Indonesia:** proposes ML of 5,000 mg/kg **USA:** allowed in USA in milk products at 6,000 mg/kg as stabilizer/thickener **IFAC:** helps to improve texture and prevents the wheying-off defect.
GUM ARABIC (ACACIA GUM)	**414**	**GMP**			**Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		**RF:** limit to 10,000 mg/kg Konjac gum, Konjac glucomannane individually or in combination.
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP		2	Antifoaming agent, Emulsifier, Stabilizer		**Japan:** INS 471 does not have thickener function, proposes add note "for use as stabilizer only" **EFEMA**: used as a stabilizer in fermented milk, heat treated after fermentation for stabilisation of the protein

[30] General Comments: **Multiple members:** support e-WG proposal. **IFAC:** use of additives with Notes 234 corresponds to CODEX STAN 243-2003.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[30]
							prior to heat treatment, stabilisation and optimisation of the viscosity, and to prevent protein aggregation
POLYDEXTROSES	**1200**	**GMP**			**Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener**		
PROCESSED EUCHEUMA SEAWEED (PES)	**407a**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
SODIUM ALGINATE	**401**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	**466**	**GMP**			**Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		

Food Category No. 01.2.2 (Renneted milk (plain))

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	**406**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**	Adopt - as per horizontal approach	**Multiple members:** support e-WG proposal.
CARRAGEENAN	**407**	**5000**			**Bulking agent, Carrier, Gelling agent, Glazing agent,**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					Humectant, Emulsifier, Stabilizer, Thickener		
GUAR GUM	412	GMP			Emulsifier, Stabilizer, Thickener		
GUM ARABIC (ACACIA GUM)	414	GMP			Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP			Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	5000			Antifoaming agent, Emulsifier, Stabilizer		
POLYDEXTROSES	1200	GMP			Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener		
PROCESSED EUCHEUMA SEAWEED (PES)	407a	5000			Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SODIUM ALGINATE	401	GMP			Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP			Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
XANTHAN GUM	415	GMP			Foaming agent, Emulsifier, Stabilizer, Thickener		

Food Category No. 02.1.2 (Vegetable oils and fats)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis

Corresponding commodity standards: 019-1981, 210-1999: allows specific antioxidants, antioxidant synergists, and anti-foaming agents; 033-1981: does not allow food additives (except tocopherols).

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	20000		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Brazil, EU, India, Japan, RF:** Discontinue

Food Category No. 02.1.3 (Lard, tallow, fish oil, and other animal fats)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis

Corresponding commodity standards: 019-1981: allows specific antioxidants, antioxidant synergists, and anti-foaming agents; 211-1999: allows specific antioxidants, antioxidant synergists.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	20000		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Japan:** Hold provisions until the CCFO completes its work on the Codex Standard for Fish Oils.

Food Category No. 01.8.2 (Dried whey and whey products, excluding whey cheeses)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are justified in this FC on a case-by-case basis

Corresponding commodity standards: 289-1995: refers to provisions in FC 01.8.2 in Tables 1 & 2.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
LECITHIN	322(i)	30000		2	Antioxidant, Emulsifier	Adopt at GMP	**India:** allowed as an antioxidant in India in all foods **ELC:** added to whey powders during drying process to improve wettability/dispersability of the whey products. Typical use level is 1-2 % but up to 3% might be needed. Lecithin is also used as an antioxidant in dried whey and whey products; it is effective as a synergist in combination with tocopherols, or other antioxidants. **IFAC:** widely used in whey protein concentrate and whey protein isolate for instantizing. Lecithin is required to disperse dried whey to help emulsify the mixture. As this is a table 3 additive, the use level

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
							should be GMP.

Food Category No. 04.1.1.3 (Peeled or cut fresh fruit)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Multiple Members:** support e-WG proposal

Food Category No. 04.2.1 (Fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis. However, the use of ES&T in subcategory 04.2.1.2 was placed on hold for the decision on additives in additives.

(FA45/CRD 2, Appendix V): The use of Acidity Regulators is not justified in this FC on a general basis or in subcategories 04.2.1.2 or 04.2.1.3. However, acidity regulators are justified in FC 04.2.1.1with the Note "For use in edible fungi and fungus products." (i.e. Note 262)..

Corresponding commodity standards: None; subcategories have corresponding commodity standards

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~GUM ARABIC (ACACIA GUM)~~	~~414~~	~~83000~~	~~79~~	~~7~~	~~Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener~~	Consider ES&T or Acidity Regulator use in subcategories	**Multiple Members:** support e-WG proposal
~~SODIUM DIHYDROGEN CITRATE~~	~~331(i)~~	~~GMP~~		~~7~~	~~Acidity Regulator, Sequestrant, Emulsifier, Stabilizer~~		
~~TRISODIUM CITRATE~~	~~331(iii)~~	~~2000~~		~~7~~	~~Acidity Regulator, Sequestrant, Emulsifier, Stabilizer~~		

Food Category No. 04.2.1.1 (Untreated fresh vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes (including soybeans), and aloe vera), seaweeds and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis.
(FA45/CRD 2, Appendix V): The use of Acidity Regulators is justified in this FC with the Note "For use in edible fungi and fungus products." (i.e. Note 262).

Corresponding commodity standards: 038-1981: only allows specific acidity regulators; 40R-1981, 131-1981, 171-1989, 185-1993, 186-1993, 188-1993, 197-1995, 200-1995, 218-1999, 224-2001, 225-2001, 238-2003, 293-2008, 300-2010, 303-2011, 304R-2011, 307-2011: do not allow food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
SODIUM DIHYDROGEN CITRATE	**331(i)**	**GMP**			**Acidity Regulator, Sequestrant, Emulsifier, Stabilizer**	Adopt at GMP with Note 262 as per the horizontal approach for Acidity Regulators in this FC	**Brazil, Iran:** does not allow food additives in untreated fresh vegetables, including mushrooms and fungi **EU:** request information on use as acidity regulator **Japan:** supports proposal **RF:** use of additives in unprocessed foods could mislead consumers.
TRISODIUM CITRATE	**331(iii)**	**2000**			**Acidity Regulator, Sequestrant, Emulsifier, Stabilizer**		

Food Category No. 04.2.1.2 (Surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): Hold decision on horizontal justification of ES&T in this FC until discussion on additives in additives.
(FA45/CRD 2, Appendix V): The use of Acidity Regulators is not justified in this FC on a general basis**.**

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	16	7	Sequestrant, Emulsifier, Stabilizer	Hold provisions to take into consideration ES&T Function after the work of the eWG on additives in additives	**Brazil:** only allows additives in nuts and seeds **Multiple members:** support e-WG proposal
ACETYLATED DISTARCH PHOSPHATE	1414	GMP	16	7	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener		
AGAR	406	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
ALGINIC ACID	400	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
AMMONIUM ALGINATE	403	GMP		7	Bulking agent, Carrier, Foaming		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
CALCIUM ALGINATE	404	GMP		7	Antifoaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener		
CALCIUM CARBONATE	170(i)	GMP	4 & 16	7	Acidity Regulator, Anticaking agent, Colour, Firming agent, Flour treatment agent, Stabilizer		
CALCIUM CHLORIDE	509	800	58	7	Firming agent, Stabilizer, Thickener		
CALCIUM SULFATE	516	800	58	7	Acidity Regulator, Firiming agent, Flour treatment agent, Sequestrant, Stabilizer		
CAROB BEAN GUM	410	GMP		7	Emulsifier, Stabilizer, Thickener		
CARRAGEENAN	407	GMP		7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	16	7	Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer		
GELLAN GUM	418	GMP		7	Stabilizer, Thickener		
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener		
GUM ARABIC (ACACIA GUM)	**414**	**83000**	**79**		**Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener**		
HYDROXYPROPYL CELLULOSE	463	GMP	16	7	Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP	16	7	Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
HYDROXYPROPYL STARCH	1440	GMP	16	7	Emulsifier, Stabilizer, Thickener		
KARAYA GUM	416	GMP		7	Emulsifier, Stabilizer, Thickener		
KONJAC FLOUR	425	GMP		7	Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					Thickener		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP	16	7	Sequestrant, Emulsifier, Stabilizer		
LECITHIN	322(i)	GMP	16	7	Antioxidant, Emulsifier		
MAGNESIUM CHLORIDE	511	GMP	16	7	Colour retention agent, Firming agent, Stabilizer		
MANNITOL	421	GMP		4	Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener		
METHYL CELLULOSE	461	GMP	16	7	Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
METHYL ETHYL CELLULOSE	465	GMP	16	7	Foaming agent, Emulsifier, Stabilizer, Thickener		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	16	7	Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP	16	7	Antifoaming agent, Emulsifier, Stabilizer		
OXIDIZED STARCH	1404	GMP	16	7	Emulsifier, Stabilizer, Thickener		
PECTINS	440	GMP		7	Gelling agent, Emulsifier, Stabilizer, Thickener		
POTASSIUM ALGINATE	402	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
POTASSIUM DIHYDROGEN CITRATE	332(i)	GMP	16	7	Acidity Regulator, Sequestrant, Stabilizer		
POWDERED CELLULOSE	460(ii)	GMP	16	7	Anticaking agent, Bulking agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
PROCESSED EUCHEUMA	407a	GMP		7	Bulking agent, Carrier, Gelling agent,		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
SEAWEED (PES)					Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP	16 & 71	7	Anticaking agent, Emulsifier, Stabilizer		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP	16	7	Anticaking agent, Emulsifier, Stabilizer		
SODIUM ALGINATE	401	GMP		7	Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	16	7	Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SODIUM DIHYDROGEN CITRATE	**331(i)**	**GMP**			**Acidity Regulator, Sequestrant, Emulsifier, Stabilizer**		
TARA GUM	417	GMP		7	Gelling agent, Stabilizer, Thickener		
TRAGACANTH GUM	413	GMP	16	7	Emulsifier, Stabilizer, Thickener		
TRIPOTASSIUM CITRATE	332(ii)	GMP	16	7	Acidity Regulator, Sequestrant, Stabilizer		
TRISODIUM CITRATE	**331(iii)**	**2000**			**Acidity Regulator, Sequestrant, Emulsifier, Stabilizer**		
XANTHAN GUM	415	GMP		7	Foaming agent, Emulsifier, Stabilizer, Thickener		
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	16	7	Sequestrant, Emulsifier, Stabilizer		
ACETYLATED DISTARCH PHOSPHATE	1414	GMP	16	7	Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener		

Food Category No. 04.2.1.3 (Peeled, cut or shredded fresh vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis
(FA45/CRD 2, Appendix V): The use of Acidity Regulators is not justified in this FC on a general basis**.**

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Multiple Members:** support e-WG proposal

Food Category No. 04.2.2.1 (Frozen vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: 038-198, 140-1983, allow only specific additives, 114-1981: only allows specific Sequestrants/processing aids; 41-1981, 110-1981, 111-1981, 77-1981, 112-1981, 113-1981, 133-1981, 132-1981, & 104-1981: do not allow food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	20000		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Multiple Members:** support e-WG proposal

Food Category No. 06.1 (Whole, broken, or flaked grain, including rice)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: 202-1995: does not allow food additives; 169-1989, 201-1995, 172-1989, 153-1985, 199-1995, 198-1995: do not discuss food additives.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	GMP		7	Emulsifier, Stabilizer, Thickener	Discontinue	**Multiple Members:** support e-WG proposal

Food Category No. 06.2 (Flours and starches (including soybean powder))

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis. However, they are justified in subcatgory 06.2.1 with the Note " For use at GMP in full fat soy flour only."

Corresponding commodity standards: None; subcategory 06.2.1 has corresponding commodity standards.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~TRISODIUM CITRATE~~	~~331(iii)~~	~~GMP~~		~~4~~	~~Sequestrant, Emulsifier, Stabilizer~~	Consider ES&T use in subcategories	**Multiple Members:** support e-WG proposal

Food Category No. 06.2.1 (Flours)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T are justified in this FC with the Note 25 "For use at GMP in full fat soy flour only."

Corresponding commodity standards: 301R-2011: references FC 06.2.1 Tables 1 & 2; 176-1989, 154-1985, 173-1989, 170-1989, 178-1991, 155-1985: do not discuss food additives; 152-1985: only lists enzymes and flour treatment agents

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
TRISODIUM CITRATE	**331(iii)**	**GMP**			**Sequestrant, Emulsifier, Stabilizer**	Adopt with Note 25	**Brazil:** Permitted in Brazil at 5,000 mg/kg **Japan:** supports e-WG proposal **RF:** technological need?

Food Category No. 06.2.2 (Starches)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T are not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal
There are no provisions in this Food Category for discussion by the pWG; included for information purposes only.						No provisions would be moved from the parent category based upon the horizontal approach that ES&T are not justified in this subcategory

Food Category No. 06.4.1 (Fresh pastas and noodles and like products)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T are justified in noodles on a general basis, case-by-case in pasta.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP		2	Sequestrant, Emulsifier, Stabilizer	Adopt with Note 211 "For use in noodles only" as per the horizontal approach for this FC	**Brazil:** Not allowed in Brazil. **Japan:** used as a stabilizer to maintain organoleptic property of noodles by retaining water within the food. **Multiple Members:** support e-WG proposal
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP		2	Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP		2	Sequestrant, Emulsifier, Stabilizer		

Food Category No. 06.4.2 (Dried pastas and noodles and like products)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&Ts are justified on a general basis with the note "For use in noodles, gluten-free pasta and pasta intended for hypoproteic diets only." (i.e. Note 256).

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETYLATED DISTARCH ADIPATE	1422	GMP		2	Emulsifier, Stabilizer, Thickener	Adopt with Note 256 as per the horizontal approach for this FC	**Brazil:** Not allowed in Brazil. **Multiple Members:** support e-WG proposal
ACETYLATED DISTARCH PHOSPHATE	1414	GMP		2	Emulsifier, Stabilizer, Thickener		
DEXTRINS, ROASTED STARCH	1400	GMP		2	Carrier, Emulsifier, Stabilizer, Thickener		

Food Category No. 08.1 (Fresh meat, poultry, and game)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T are not justified in this FC on a general basis. However, ES&Ts are justified in subcategories 08.1.1 (with note) and 08.1.2.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~AGAR~~	~~406~~	~~GMP~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~	Consider use in subcategories	**Multiple members:** support e-WG proposal
~~CARRAGEENAN~~	~~407~~	~~GMP~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~KONJAC FLOUR~~	~~425~~	~~GMP~~		~~7~~	~~Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~MANNITOL~~	~~421~~	~~GMP~~		~~4~~	~~Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener~~		
~~PECTINS~~	~~440~~	~~GMP~~		~~7~~	~~Gelling agent, Emulsifier, Stabilizer, Thickener~~		
~~PROCESSED EUCHEUMA SEAWEED (PES)~~	~~407a~~	~~GMP~~		~~4~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~TARA GUM~~	~~417~~	~~GMP~~		~~7~~	~~Gelling agent, Stabilizer, Thickener~~		
~~XANTHAN GUM~~	~~415~~	~~GMP~~		~~7~~	~~Foaming agent, Emulsifier, Stabilizer, Thickener~~		

Food Category No. 08.1.1 (Fresh meat, poultry, and game, whole pieces or cuts)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified with Note "For use in glaze, coatings or decorations for fruit, vegetables, meat or fish." (i.e. Note 16).

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	**406**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP with Note 16 "For use in glaze, coatings or decorations for fruit, vegetables, meat or fish." – The descriptor for parent FC 08.1 states "coatings, such as glazes and spice rubs, may be applied to meat products prior to marketing to the consumer (e.g. glazed ham, and barbecued chicken). In the Food Category System, this is indicated with a notation for "use as a glaze or coating (surface treatment)."	**Brazil:** partially supports e-WG proposal. However, discontinue provisions for INS 421, 440, 417, and 415. **Japan:** supports e-WG proposal **RF:** use of additives in this FC could mislead **IFAC:** supports e-WG proposal. Glazes or coatings are very important in meats that are sold as fresh meat but may include a glaze added to the meat prior to marketing to the consumer (e.g. glazed ham, and barbecued chicken). Glazes may also function as a microbial barrier protecting meat between butchering and packaging. **IFAC:** INS 407 and 407a are approved as a glaze for application to fresh slaughtered beef by the U.S. Department of Agriculture (USDA) as a microbial barrier for carcasses in storage. We have been advised that in the US this is not a food additive application as carrageenan is actually removed before the carcass is butchered. **ELC:** support e-WG proposal for Xantham gum.
CARRAGEENAN	**407**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MANNITOL	**421**	**GMP**			**Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener**		
PECTINS	**440**	**GMP**			**Gelling agent, Emulsifier, Stabilizer, Thickener**		
PROCESSED EUCHEUMA SEAWEED (PES)	**407a**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
TARA GUM	**417**	**GMP**			**Gelling agent, Stabilizer, Thickener**		
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		

Food Category No. 08.1.2 (Fresh meat, poultry, and game, comminuted)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis. However, during discussion of this FC during the plenary, Note 281 "For use only in fresh minced meat which contains other ingredients apart from comminuted meat only." was added to all provisions for ES&T recommended for adoption (see REP14/FA para 62).

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
AGAR	**406**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP with Note 281 "For use only in fresh minced meat which contains other ingredients apart from comminuted meat." - as per the horizontal approach	**Brazil:** Revise note to provide more details on meaning of "other ingredients". Current note may allow ES&T when use is not justified (i.e, if the meat has any kind of ingredients, such as salt and seasons, the GSFA will allow the use of ES&T). **Japan:** supports e-WG proposal **RF:** does not support e-WG proposal. Food additives in this FC should be limited even if other additives used. Use of additives could mislead consumers. **ELC:** supports e-WG proposal for Xantham gum. **IFAC:** supports e-WG proposal. ESTs are used in re-structured or re-formed food products that fall into this category. For example, sodium alginate, calcium carbonate, lactic acid and calcium lactate are mixed with meat pieces to form a calcium alginate gel that binds the meat pieces together. This reduces food waste of these comminuted pieces. The proposed note is sufficient to protect regional products such as minced-meats that may be common in countries like Singapore.
CARRAGEENAN	**407**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MANNITOL	**421**	**GMP**			**Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener**		
PECTINS	**440**	**GMP**			**Gelling agent, Emulsifier, Stabilizer, Thickener**		
PROCESSED EUCHEUMA SEAWEED (PES)	**407a**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
TARA GUM	**417**	**GMP**			**Gelling agent, Stabilizer, Thickener**		
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer,**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					Thickener		

Food Category No. 09.2 (Processed fish and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&Ts is not justified in this food category on a general basis. However, they are justified in subcategories 09.2.1, 09.2.2, 09.2.4.1, 09.2.4.3, and 09.2.5 with specific notes, and in 09.2.3 on a general basis.

(FA/45 CRD2 Appendix IV): The use of acidity regulators is not justified in this food category on a general basis. However, they are justified in subcategory 09.2.1 on a case-by-case basis and in 09.2.2, 09.2.3, and 09.2.4 on a general basis.

Corresponding commodity standards: None; subcategories have corresponding commodity standards, some of which do not allow food additives

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~ALGINIC ACID~~	~~400~~	~~GMP~~		~~4~~	~~Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener~~	Consider use in subcategories	**Multiple members:** support e-WG proposal
~~CALCIUM CHLORIDE~~	~~509~~	~~10000~~	~~58~~	~~4~~	~~Firming agent, Stabilizer, Thickener~~		
GUAR GUM	412	GMP		4	Emulsifier, Stabilizer, Thickener	Discontinue – already adopted in subcategories with exception of 09.2.4, which has a separate provision	**Multiple members:** support e-WG proposal
~~KONJAC FLOUR~~	~~425~~	~~GMP~~		~~7~~	~~Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~	Consider use in subcategories	**Multiple members:** support e-WG proposal
~~MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)~~	~~460(i)~~	~~10000~~		~~7~~	~~Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener~~		
~~MONO- AND DI-GLYCERIDES OF FATTY ACIDS~~	~~471~~	~~10000~~		~~7~~	~~Antifoaming agent, Emulsifier, Stabilizer~~		
~~POTASSIUM CARBONATE~~	~~501(i)~~	~~GMP~~		~~4~~	~~Acidity regulator, Stabilizer~~		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~POTASSIUM CHLORIDE~~	~~508~~	~~GMP~~		~~4~~	~~Flavour enhancer, Stabilizer, Thickener~~		
~~SODIUM GLUCONATE~~	~~576~~	~~GMP~~		4	~~Sequestrant, Stabilizer,Thickener~~		

Food Category No. 09.2.1 (Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC with note 29 "For use in non-standardized food only"
(FA/45 CRD2 Appendix IV): The use of acidity regulators is justified in this food category on a case-by-case basis.

Corresponding commodity standards: 092-1981: allows specific antioxidants & preservatives; 95-1981: allows specific water retention agents, preservatives, antioxidants; 190-1995, 165-1989: allows specific water retention agents, antioxidants; 36-1981: allows specific antioxidants; 191-1995: does not allow food additives; 292-2008: food additives not allowed in live bivalve molluscs, only antioxidants allowed in raw bivalve molluscs (raw frozen molluscs) as per provisions in FC 09.2.1; 311-2013: does not allow food additives - None of these standards discuss glazing (coatings) ingredients

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP with Note 29 "For use in non-standardized food only" - as per the horizontal approach for ES&T in this FC - See discussion from CX/FA 14/46/8, many comments showing use of ES&T in these products	**Brazil, EU, Iran, Norway:** requests technological justification in non-standardized products **Japan:** supports e-WG proposal **RF:** use could mislead consumers **IFAC:** supports e-WG proposal. As noted at the 46th CCFA, ESTs are needed for all frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms to maintain the texture of the products after thawing. They are used to protect the product from structure changes during the freeze-thaw cycles during handling and storage, by decreasing the freezing point. Per the horizontal approach the use level should be GMP. We do not object to the proposed note as we understanding these uses are for non-standardized products
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	**460(i)**	**10000**			**Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	**471**	**10000**			**Antifoaming agent, Emulsifier, Stabilizer**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
POTASSIUM CARBONATE	**501(i)**	**GMP**			**Acidity regulator, Stabilizer**		
POTASSIUM CHLORIDE	**508**	**GMP**			**Flavour enhancer, Stabilizer, Thickener**		
SODIUM GLUCONATE	**576**	**GMP**			**Sequestrant, Stabilizer,Thickener**		

Food Category No. 09.2.2 (Frozen battered fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC with note 29 "For use in non-standardized food only"
(FA/45 CRD2 Appendix IV): The use of acidity regulators is justified in this food category on a general basis.

Corresponding commodity standards: 166-1989: allows specific water retention agents & antioxidants, specific additives in breaded and batter coatings: Leavening agents, flavour enhancers, modified starches.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP with Note 29 "For use in non-standardized food only" - as per the horizontal approach for ES&T in this FC	**Brazil, EU, Iran, Norway:** requests technological justification in non-standardized products **Japan:** supports e-WG proposal **RF:** use could mislead consumers **IFAC:** supports e-WG proposal. As noted at the 46th CCFA, ESTs are commonly used in the batter preparations of products in this food category, but also function to stabilize the fish or mollusks protecting against degradation due to freezing and thawing. In the batters ESTs improve adhesion, reduce fat uptake during frying and improve the crispiness of the batter. CODEX STAN 165-1989 and 166-1989, permit thickeners, including in batters. IFAC does not object to use of the proposed note.
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	**460(i)**	**10000**			**Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	**471**	**10000**			**Antifoaming agent, Emulsifier, Stabilizer**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
POTASSIUM CARBONATE	**501(i)**	**GMP**			**Acidity regulator, Stabilizer**	Adopt as per horizontal approach for acidity regulators	**Japan:** supports e-WG proposal **Norway, RF**: technological need?
POTASSIUM CHLORIDE	**508**	**GMP**			**Flavour enhancer, Stabilizer, Thickener**	Adopt at GMP with Note 29 "For use in non-standardized food only"	**Brazil, EU, Iran, Norway:** requests technological justification in non-standardized products **Japan:** supports e-WG proposal **RF:** use could mislead consumers **IFAC:** same comment as above.
SODIUM GLUCONATE	**576**	**GMP**			**Sequestrant, Stabilizer,Thickener**		

Food Category No. 09.2.3 (Frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this food category on a general basis.
(FA/45 CRD2 Appendix IV): The use of acidity regulators is justified in this food category on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**	Adopt at GMP as per horizontal approach for ES&T in this FC	**Brazil, Iran, Norway:** requests technological justification **Japan:** supports e-WG proposal **RF:** use could mislead consumers **IFAC:** supports e-WG proposal. As noted at the 46th CCFA and above, the justification in this food category is the same as in other frozen fish products (for water retention) to maintain the texture of the products after thawing by compensating the drip-loss.
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	**460(i)**	**10000**			**Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	**471**	**10000**			**Antifoaming agent, Emulsifier, Stabilizer**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
POTASSIUM CARBONATE	**501(i)**	**GMP**			**Acidity regulator, Stabilizer**	Adopt as per horizontal approach for acidity regulators	
POTASSIUM CHLORIDE	**508**	**GMP**			**Flavour enhancer, Stabilizer, Thickener**	Adopt as per horizontal approach for ES&T in this FC	
SODIUM GLUCONATE	**576**	**GMP**			**Sequestrant, Stabilizer,Thickener**		

Food Category No. 09.2.4 (Cooked and/or fried fish and fish products, including molluscs, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T are not justified in this FC on a general basis. However, ES&T are justified in subcategories 09.2.4.1 and 09.2.4.3 with specific Notes.

(FA/45 CRD2 Appendix IV): The use of acidity regulators is justified in this food category and all subcategories on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~ACETIC AND FATTY ACID ESTERS OF GLYCEROL~~	~~472a~~	~~GMP~~		~~7~~	~~Sequestrant, Emulsifier, Stabilizer~~	Consider use in subcategories 09.2.4.1 & 09.2.4.3 - ES&T horizontally justified in these subcategories with specific notes	**Multiple members:** support e-WG proposal
~~AGAR~~	~~406~~	~~GMP~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~CARRAGEENAN~~	~~407~~	~~GMP~~		~~7~~	~~Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~CITRIC AND FATTY ACID ESTERS OF GLYCEROL~~	~~472c~~	~~GMP~~		~~7~~	~~Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer~~		
~~GUAR GUM~~	~~412~~	~~GMP~~		~~7~~	~~Emulsifier, Stabilizer, Thickener~~		
~~GUM ARABIC (ACACIA GUM)~~	~~414~~	~~GMP~~		~~7~~	~~Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener~~		
~~HYDROXYPROPYL~~	~~463~~	~~GMP~~		~~7~~	~~Foaming agent, Glazing agent,~~		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~CELLULOSE~~					~~Emulsifier, Stabilizer, Thickener~~		
~~HYDROXYPROPYL METHYL CELLULOSE~~	~~464~~	~~GMP~~		~~7~~	~~Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener~~		
~~LACTIC AND FATTY ACID ESTERS OF GLYCEROL~~	~~472b~~	~~GMP~~		~~7~~	~~Sequestrant, Emulsifier, Stabilizer~~		
~~LECITHIN~~	~~322(i)~~	~~GMP~~		~~7~~	~~Antioxidant, Emulsifier~~		
~~MAGNESIUM CHLORIDE~~	~~511~~	~~GMP~~		~~7~~	~~Colour retention agent, Firming agent, Stabilizer~~		
~~MANNITOL~~	~~421~~	~~GMP~~		~~4~~	~~Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener~~		
~~METHYL CELLULOSE~~	~~461~~	~~GMP~~		~~7~~	~~Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener~~		
~~METHYL ETHYL CELLULOSE~~	~~465~~	~~GMP~~		~~7~~	~~Foaming agent, Emulsifier, Stabilizer, Thickener~~		
~~PECTINS~~	~~440~~	~~GMP~~		~~7~~	~~Gelling agent, Emulsifier, Stabilizer, Thickener~~		
~~POLYDEXTROSES~~	~~1200~~	~~GMP~~		~~7~~	~~Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener~~		
POTASSIUM CARBONATE	**501(i)**	**GMP**			**Acidity regulator, Stabilizer**	Adopt as per horizontal approach for acidity regulators	
~~POWDERED CELLULOSE~~	~~460(ii)~~	~~GMP~~		~~7~~	~~Anticaking agent, Bulking agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~	Consider use in subcategories 09.2.4.1 & 09.2.4.3 - ES&T horizontally justified in these subcategories with specific notes	**Multiple members:** support e-WG proposal
~~SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM~~	~~470(i)~~	~~GMP~~		~~7~~	~~Anticaking agent, Emulsifier, Stabilizer~~		
~~SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND~~	~~470(ii)~~	~~GMP~~		~~7~~	~~Anticaking agent, Emulsifier, Stabilizer~~		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~SODIUM~~							
~~SODIUM ALGINATE~~	~~401~~	~~GMP~~		~~4~~	~~Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener~~		
~~SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)~~	~~466~~	~~GMP~~		~~7~~	~~Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener~~		
~~TARA GUM~~	~~417~~	~~GMP~~		~~7~~	~~Gelling agent, Stabilizer, Thickener~~		
~~XANTHAN GUM~~	~~415~~	~~GMP~~		~~7~~	~~Foaming agent, Emulsifier, Stabilizer, Thickener~~		

Food Category No. 09.2.4.1 (Cooked fish and fish products)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified with Note 241 "For use in surimi products only."

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[31]
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	**472a**	**GMP**			**Sequestrant, Emulsifier, Stabilizer**	Adopt at GMP with Note 241 "For use in surimi products only." as per horizontal approach for ES&Ts in this FC	**Japan:** used to blend fish paste with seasonings entirely for keeping its quality uniform in surimi products.
AGAR	**406**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent,**		

[31] General Comments: **Norway:** requests information on the technological need for additives in this FC. **IFAC:** As noted at the 46th CCFA, ESTs, including carrageenan, cellulose gum, HPMC, HPC, MC and Konjac are extremely important for use in surimi as thickeners. These additives help to bind the fish paste/bits into a uniform product and ensure a desired consistency. **Multiple Members:** support e-WG proposal.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[31]
					Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
CARRAGEENAN	**407**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	**472c**	**GMP**			**Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer**		**Japan:** used to blend fish paste with seasonings entirely for keeping its quality uniform in surimi products.
GUAR GUM	**412**	**GMP**			**Emulsifier, Stabilizer, Thickener**		**Japan:** used to maintain texture by retention of air in surimi products.
GUM ARABIC (ACACIA GUM)	**414**	**GMP**			**Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener**		**Japan:** used to make texture smooth by keeping moisture in surimi products.
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
HYDROXYPROPYL CELLULOSE	**463**	**GMP**			**Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
HYDROXYPROPYL METHYL CELLULOSE	**464**	**GMP**			**Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	**472b**	**GMP**			**Sequestrant, Emulsifier, Stabilizer**		**Japan:** used to blend fish paste with seasonings entirely for keeping its quality uniform in surimi products.
LECITHIN	**322(i)**	**GMP**			**Antioxidant, Emulsifier**		
MAGNESIUM CHLORIDE	**511**	**GMP**			**Colour retention agent, Firming agent, Stabilizer**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[31]
MANNITOL	**421**	**GMP**			**Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener**		
METHYL CELLULOSE	**461**	**GMP**			**Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
METHYL ETHYL CELLULOSE	**465**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	**460(i)**	**10000**			**Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	**471**	**10000**			**Antifoaming agent, Emulsifier, Stabilizer**		**Japan:** used to blend fish paste with seasonings entirely for keeping its quality uniform in surimi products.
PECTINS	**440**	**GMP**			**Gelling agent, Emulsifier, Stabilizer, Thickener**		**Japan:** used to maintain texture by retention of air in surimi products.
POLYDEXTROSES	**1200**	**GMP**			**Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener**		
POWDERED CELLULOSE	**460(ii)**	**GMP**			**Anticaking agent, Bulking agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	**470(i)**	**GMP**			**Anticaking agent, Emulsifier, Stabilizer**		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND	**470(ii)**	**GMP**			**Anticaking agent, Emulsifier, Stabilizer**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[31]
SODIUM							
SODIUM ALGINATE	**401**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	**466**	**GMP**			**Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		**Japan:** used to make texture smooth by keeping moisture in surimi products.
SODIUM GLUCONATE	**576**	**GMP**			**Sequestrant, Stabilizer,Thickener**		
TARA GUM	**417**	**GMP**			**Gelling agent, Stabilizer, Thickener**		
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt with Note 16 as per comments	**Japan:** Xanthan gum is used in cooked fish products boiled down in soy souce to improve adhesion of seasoning sauce to fish by increasing the viscosity.

Food Category No. <u>09.2.4.2 (Cooked mollusks, crustaceans, and echinoderms)</u>

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is <u>not</u> justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal
There are no provisions in this Food Category for discussion by the pWG; included for information purposes only.						No provisions would be moved from the parent category based upon the horizontal approach that ES&T are not justified in this subcategory

Food Category No. 09.2.4.3 (Fried fish and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified with Note "For use in breading or batter coatings only." (i.e. Note 41)

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	**472a**	**GMP**			**Sequestrant, Emulsifier, Stabilizer**	Adopt at GMP with Note 41 "For use in breading or batter coatings only" as per the horizontal approach for ES&T in this FC	**Norway:** requests technical need. **RF:** For (INS 425) - 10,000 mg/kg, Konjac gum and Konjac glucomannane individually or in combination **Multiple Members:** support e-WG proposal **IFAC:** As noted at the 46th CCFA, ESTs in the batters improve adhesion, reduce fat uptake during frying and improve the crispiness of the batter
AGAR	**406**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**		
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
CARRAGEENAN	**407**	**GMP**			**Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	**472c**	**GMP**			**Antioxidant, Flour treatment agent, Sequestrant, Emulsifier, Stabilizer**		
GUAR GUM	**412**	**GMP**			**Emulsifier, Stabilizer, Thickener**		
GUM ARABIC (ACACIA GUM)	**414**	**GMP**			**Bulking agent, Carrier, Glazing agent, Emulsifier, Stabilizer, Thickener**		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
KONJAC FLOUR	425	GMP			Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
HYDROXYPROPYL CELLULOSE	463	GMP			Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
HYDROXYPROPYL METHYL CELLULOSE	464	GMP			Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP			Sequestrant, Emulsifier, Stabilizer		
LECITHIN	322(i)	GMP			Antioxidant, Emulsifier		
MAGNESIUM CHLORIDE	511	GMP			Colour retention agent, Firming agent, Stabilizer		
MANNITOL	421	GMP			Anticaking agent, Bulking agent, Humectant, Sweetener, Stabilizer, Thickener		
METHYL CELLULOSE	461	GMP			Bulking agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
METHYL ETHYL CELLULOSE	465	GMP			Foaming agent, Emulsifier, Stabilizer, Thickener		
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	10000			Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	10000			Antifoaming agent, Emulsifier, Stabilizer		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	440	GMP			Gelling agent, Emulsifier, Stabilizer, Thickener		
POLYDEXTROSES	1200	GMP			Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener		
POWDERED CELLULOSE	460(ii)	GMP			Anticaking agent, Bulking agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SALTS OF MYRISTIC, PALMITIC AND STEARIC ACIDS WITH AMMONIA, CALCIUM, POTASSIUM AND SODIUM	470(i)	GMP			Anticaking agent, Emulsifier, Stabilizer		
SALTS OF OLEIC ACID WITH CALCIUM, POTASSIUM AND SODIUM	470(ii)	GMP			Anticaking agent, Emulsifier, Stabilizer		
SODIUM ALGINATE	401	GMP			Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener		
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP			Bulking agent, Firming agent, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener		
SODIUM GLUCONATE	576	GMP			Sequestrant, Stabilizer,Thickener		
TARA GUM	417	GMP			Gelling agent, Stabilizer, Thickener		

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**GMP**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		

Food Category No. 09.2.5 (Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms)

Horizontal approach (FA/46 CRD 2 Appendix II): ES&T justified with Note 300 "For use in salted squid only."
(FA45/CRD 2, Appendix V): Acidity Regulators are justified with Note 267 which excludes standards 167-1989, 189-1993, 222-2001, and 236-2003.

Corresponding commodity standards: 244-2004: allows sorbates (antioxidants) Benzoates (preservatives), ascorbic and citric acid (ARs), 167-1989: allows specific preservatives (sorbates), 222-2001: allows sequestrant (INS 452)) & flavour enhancer (INS 621); 311-2013: allows specific ARs, antioxidants, colours, and preservatives; 189-1993, 236-2003: food additives are not permitted.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[32]
ALGINIC ACID	**400**	**GMP**			**Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Emulsifier, Stabilizer, Thickener**	Adopt with Note 300 "For use in salted squid only" as per the horizontal approach for ES&T in this FC	
CALCIUM CHLORIDE	**509**	**10000**	**58**		**Firming agent, Stabilizer, Thickener**		
KONJAC FLOUR	**425**	**GMP**			**Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener**		**RF**: 10,000 mg/kg, Konjac gum and Konjac glucomannane individually or in combination
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	**460(i)**	**10000**			**Anticaking agent, Bulking agent, Carrier, Foaming agent, Glazing agent, Emulsifier, Stabilizer, Thickener**		
MONO- AND DI-GLYCERIDES OF	**471**	**10000**			**Antifoaming agent, Emulsifier, Stabilizer**		

[32] General Comments: **Brazil:** technological function? **Japan:** Discontinue if no information on technological justification is provided. **Norway:** technological justification? Also, CODEX STAN 244-2004 allows sorbates as antioxidants but sorbates do not have the technological function "antioxidant" in the INS - recommend CCFA request clarification on function of sorbates in CODEX STAN 244-2004. **RF:** supports e-WG proposal.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal[32]
FATTY ACIDS							
POTASSIUM CARBONATE	**501(i)**	**GMP**			**Acidity regulator, Stabilizer**	Adopt with Note 267 as per horizontal approach for acidity regulators	**EU:** request information if intended to be used as an acidity regulator or as a stabiliser (if used as stabiliser the note "For use in salted squid only" applies - see CRD 2 of 46 CCFA, p.15) **Japan, RF:** supports adoption with Note 267 **Norway:** revise Note 267 to exclude products conforming to CODEX STANs 244-2004 and 311-2013. Otherwise refer to CCFFP.
POTASSIUM CHLORIDE	**508**	**GMP**			**Flavour enhancer, Stabilizer, Thickener**	Adopt with Note 300	
SODIUM GLUCONATE	**576**	**GMP**			**Sequestrant, Stabilizer,Thickener**		

Food Category <u>No. 10.2.1 (Liquid egg products)</u>

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CALCIUM SULFATE	516	GMP		2	Firiming agent, Flour treatment agent, Sequestrant	Adopt - as per horizontal approach for ES&T for this FC	**Multiple members**: support e-WG proposal
DEXTRINS, ROASTED STARCH	1400	GMP		2	Carrier, Emulsifier, Stabilizer, Thickener		
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP		2	Antifoaming agent, Emulsifier, Stabilizer		
STARCH SODIUM OCTENYL SUCCINATE	1450	GMP		2	Emulsifier, Stabilizer, Thickener		

Food Category No. 10.2.2 (Frozen egg products)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
STARCH SODIUM OCTENYL SUCCINATE		GMP		2	Emulsifier, Stabilizer, Thickener	Adopt - as per horizontal approach for ES&T for this FC	**Multiple members**: support e-WG proposal

Food Category No. 12.2 (Herbs, spices, seasonings, and condiments (e. g. seasonings for instant noodles))

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis.
(FA45/CRD 2, Appendix V): The use of Acidity Regulators is not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
POTASSIUM CARBONATE	501(i)	GMP	51	4	Acidity regulator, Stabilizer	Discontinue - ES&Ts and Acidity regulators are not justified in 12.2.1, and 12.2.2 is not in the Annex to Table 3 so the additive can be used in that subcategory without a provision in the parent category	**Multiple members:** support e-WG proposal

Food Category No. 12.2.1 (Herbs and spices)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is not justified in this FC on a general basis

Corresponding commodity standards: None – Note: Table 3 additives can be used in spices without provisions in this food category. The Annex to Table 3 only lists herbs.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
GUAR GUM	412	GMP		51	Emulsifier, Stabilizer, Thickener	Discontinue	**Multiple Members:** support e-WG proposal

Food Category No. 13.1.2 (Follow-up formulae)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 156-1987: allows specific antioxidants and flavours.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	300	72[33] & 151[34]	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener	Adopt, add notes "singly or in combination with other thickeners" and "use level in milk and soy based products only" listed in corresponding commodity standards, JECFA's recent evaluation noted that INS 407 in infant formulae at up to 1000 mg/L is not of concern.	**AUS**, Japan: support proposal. Allowed in AUS at 300 mg/L in liquid infant formula **EU:** does not support. However, if adopted the notes "in milk and soy-based products only" and "in hydrolyzed protein and/or amino acid-based liquid products only" should be added as per CX 156-1987. **RF:** does not support. list of additives in this FC have similar technical functions. **USA, IFAC[35]:** supports e-WG proposal

Food Category No. 13.2 (Complementary foods for infants and young children)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC on a case-by-case basis

Corresponding commodity standards: 073-1981: allows specific antioxidants, flavours, packaging gasses; 74-1981: anticaking agents, raising agents, packaging gases, antioxidants.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
CARRAGEENAN	407	300	72 & 151	7	Bulking agent, Carrier, Gelling agent, Glazing agent, Humectant, Emulsifier, Stabilizer, Thickener	Refer to CCFSNDU for comment	**AUS**: permitted in AUS at 10,000 mg/L in foods for infants **EU, Japan:** Discontinue. Not listed in corresponding commodity standards **Indonesia**, **USA**: supports e-WG proposal **RF:** does not support. Other additives in this FC have similar technical functions.

[33] **Note 72:** "on the ready-to-eat basis"
[34] **Note 151:** "Except for use in hydrolyzed protein and/or amino acid-based formula at 1 000 mg/kg."
[35] **IFAC:** Carrageenan is a very important stabilizer that helps ensure that nutrients remain in solution and do not settle to the bottom of these products. This ensures young children receive adequate nutrition throughout the product. Carrageenan also adds to the thickness of the product that can be very important for picky eaters or young children that are transitioning from formula for special medical purposes. Carrageenan also functions well (binding) with proteins in soy based follow-up formula and dairy based follow-up formula, which is a functional advantage over some other permitted alternative stabilizers.

Food Category No. 14.1.2 (Fruit and vegetable juices)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this FC on a general basis. However, ES&T are justified on a case-by-case basis in subcategories 14.1.2.1 and 14.1.2.3. ES&T are not justified in subcategories 14.1.2.2 & 14.1.2.4.

Corresponding commodity standards: None, 247-2005 corresponds to subcategory 14.1.2.1 & 14.1.2.3.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
~~PECTINS~~	~~440~~	~~3000~~	-	~~2~~	~~Gelling agent, Emulsifier, Stabilizer, Thickener~~	Discuss use of ES&Ts in all sub-categories. Although 46th pWG decided ES&T are not justified in subcategories 14.1.2.2 & 14.1.2.4, information provided indicates ES&T use in all subcatgories. Note that there are adopted provisions for Pectin @ GMP in FCs 14.1.2.1 & 14.1.2.3 for use in cloudy juices only (Note 35).	**Costa Rica:** INS 440 used in fruit and vegetable juices is approved in several countries **India:** GMP in aseptically packed fruit juices **RF:** restrict to pineapple nectars and passion fruit juice. **ICBA, IFAC:** Use or ES&T is justified in all subcategories. Maximum level should be GMP. Recommend 5,000 mg/kg if numerical ML needed.
~~XANTHAN GUM~~	~~415~~	~~3000~~		~~2~~	~~Foaming agent, Emulsifier, Stabilizer, Thickener~~		**Thailand:** used in several types of fruit and vegetable juices **ELC:** used as ES&T in all subcategories **RF:** not allowed in RF

Food Category No. 14.1.2.1 (Fruit juice)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified on a case-by-case basis.

Corresponding commodity standards: 247-2005: allows food additives listed in Tables 1 & 2 in FCs 14.1.2.1, 14.1.2.3, 14.1.3.1, & 14.1.3.3

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case basis and information provided indicates use of this additive in this food category by some Codex	**Brazil:** permitted as stabilizer at 2,000 mg/kg **EU, RF:** not permitted by these Codex Members **Iran:** does not support addition of any gum except Pectins to juice **Thailand:** used as thickener and stabilizer in several types of fruit juices (e.g. orange, grape, apple). Provides good colloidal suspension of solids and improves mouthfeel and viscosity of products. It is resistant to acid and heat so suitable for low acid and heat treated products. **ELC:** Stabilizers are necessary in general in the processing of juices and nectars to obtain a better homogeneity of the product and distribution of pulp and fruit, avoiding problems related to separation during production process and filling. In addition, oxidation, which changes the original flavor and nutritional profile of these beverages, is more likely in these beverages if distinct phases are present. The addition of stabilizers results in a more homogeneous product and avoids oxidation. Xanthan gum also maintains uniform characteristics independent of the pH and temperature of the system, which enhances the versatility of use of this gum in juices and

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
						Members.	nectars. Many fruits have different varieties and this diversity brings variation in colors, flavors, fiber, sugars, among other factors depending on time of harvest. So, the use of stabilizers is necessary in order to obtain a uniform product, When using pectins, dissolution in water at 80°C for hydration and activation is recommended, whereas xanthan is cold-soluble. This is an important factor for sustainability and productivity in industries, reducing energy expenditure and simplifying processing steps. **ICBA:** gives viscosity to beverages. can stabilize the appearance of a cloudy beverage, by producing a suspension sufficiently viscous to prevent fine particles from settling. Contributes to the organoleptic properties of the beverage, enhancing mouthfeel and flavor release. **IFAC**: additive is needed to provide stability to cloudy juices and to ensure consistent and desired mouth feel.

Food Category No. 14.1.2.2 (Vegetable juice)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	**440**	**3000**			**Gelling agent, Emulsifier, Stabilizer, Thickener**	Further discussion on use of ES&Ts in this FC. Although 46th pWG decided ES&T are not justified in this category, comments indicate ES&T are used in foods which fall under this category.	
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		**Brazil:** allowed in Brazil as stabilizer at 2,000 mg/L **Iran:** Does not support use in this Food Category **Thailand:** used as thickener and stabilizer in several types of vegetable juices (e.g., carrot, tomato). Other comments from FC 14.1.2.1 apply here as well. **RF:** need? not allowed in RF. **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well **ICBA:** vegetable juice needs stabilization similar to fruit juice**.** Carrot juice, which is classified under 14.1.2.2, has total solids content around 6%. This close, for instance, to the solids content of starfruit juice (5.9%).

Food Category No. 14.1.2.3 (Concentrates for fruit juice)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified on a case-by-case basis.

Corresponding commodity standards: 247-2005: allows food additives listed in Tables 1 & 2 in FCs 14.1.2.1, 14.1.2.3, 14.1.3.1, & 14.1.3.3

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case	**Brazil:** permitted as stabilizer at 2,000 mg/kg **EU, Iran, RF:** not permitted by these Codex Members **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.2.4 (Concentrates for vegetable juice)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this FC on a general basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	**440**	**3000**			**Gelling agent, Emulsifier, Stabilizer, Thickener**	Further discussion on use of ES&Ts in this FC. Although 46th pWG decided ES&T are not justified in this category, comments indicate ES&T are used in foods which fall under this category.	
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**		**Brazil:** permitted as stabilizer at 2,000 mg/kg **Iran, RF:** not permitted by these Codex Members **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.3 (Fruit and vegetable nectars)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is not justified in this FC on a general basis. However, ES&T are justified on a case-by-case basis in each of the subcategories.

Corresponding commodity standards: None, 247-2005 corresponds to subcategory 14.1.3.1 & 14.1.3.3.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
PECTINS	440	3000		2	Gelling agent, Emulsifier, Stabilizer, Thickener	Discontinue, already adopted in all subcategories at GMP	**Multiple members:** support proposal
~~XANTHAN GUM~~	~~415~~	~~3000~~		~~2~~	~~Foaming agent, Emulsifier, Stabilizer,~~	Consider ES&T use in subcategories	

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
					~~Thickener~~		

Food Category No. 14.1.3.1 (Fruit nectar)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a case-by-case basis.

Corresponding commodity standards: 247-2005: allows food additives listed in Tables 1 & 2 in FCs 14.1.2.1, 14.1.2.3, 14.1.3.1, & 14.1.3.3

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case basis and information provided indicates use of this additive in this food category by several Codex Members.	**Brazil:** permitted as stabilizer at 2,000 mg/kg **Costa Rica:** supports use as stabilizer in this FC. **EU, Iran, RF:** not permitted by these Codex Members **Thailand:** used as thickener and stabilizer in several fruit nectars (e.g., orange, passion fruit). Other comments from FC 14.1.2.1 apply here as well. **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.3.2 (Vegetable nectar)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a case-by-case basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case basis and information provided indicates use of this additive in this food category by several Codex Members.	**Brazil:** permitted as stabilizer at 2,000 mg/kg **Costa Rica:** supports use as stabilizer in this FC. **EU:** allowed in EU **Iran, RF:** not permitted by these Codex Members **Thailand:** used as thickener and stabilizer in several vegetable nectars (e.g., carrot, tomato, mixed vegetable). Other comments from FC 14.1.2.1 apply here as well. **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.3.3 (Concentrates for fruit nectar)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a case-by-case basis.

Corresponding commodity standards: 247-2005: allows food additives listed in Tables 1 & 2 in FCs 14.1.2.1, 14.1.2.3, 14.1.3.1, & 14.1.3.3

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case basis and information provided indicates use of this additive in this food category by several Codex Members.	**Brazil:** permitted as stabilizer at 2,000 mg/kg **Costa Rica:** supports use as stabilizer in this FC. **EU, Iran, RF:** not permitted by these Codex Members **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.3.4 (Concentrates for vegetable nectar)

Horizontal approach (FA/45 CRD 2 Appendix IV): The use of ES&T is justified in this FC on a case-by-case basis.

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
XANTHAN GUM	**415**	**3000**			**Foaming agent, Emulsifier, Stabilizer, Thickener**	Adopt at GMP. ES&Ts are justified on a case-by-case basis and information provided indicates use of this additive in this food category by several Codex Members.	**Brazil:** permitted as stabilizer at 2,000 mg/kg **Costa Rica:** supports use as stabilizer in this FC. **EU:** allowed in EU **Iran, RF:** not permitted by these Codex Members **Thailand:** used as thickener and stabilizer in several vegetable nectars (e.g., carrot, tomato, mixed vegetable). Other comments from FC 14.1.2.1 apply here as well. **ELC, ICBA, IFAC:** comments to FC 14.1.2.1 apply here as well

Food Category No. 14.1.5 (Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa)

Horizontal approach (FA/46 CRD 2 Appendix II): The use of ES&T is justified in this FC with Note 160 "For use in ready-to-drink products and pre-mixes for ready-to-drink products only"

Corresponding commodity standards: None.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG proposal	Comments by eWG members on proposal
STARCH SODIUM OCTENYL SUCCINATE	1450	GMP		2	Emulsifier, Stabilizer, Thickener	Adopt with Note 160 - as per the horizontal approach for ES&T in this FC	**Brazil:** not allowed in Brazil **Japan, ICBA**: supports proposal **RF**: does not support proposal