CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 5(a) CRD07

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Fiftieth Session

GENERAL STANDARD FOR FOOD ADDITIVES (GSFA) ; REPORT OF THE EWG ON THE GSFA

Comments of China, Morocco, Nicaragua, Philippines, Republic of Korea, GOED, IDF and IFU

China

Appendix 5 ***Provisions in Table 1 and 2 of the GSFA in food categories 09.0 through 016.0, with the exception of those additives with technological functions of colour or sweetener, adipates, nitrites and nitrates and the provisions related to FC 14.2.3***

Food Category No. 10.2.1 Liquid egg products

Horizontal approach: (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners 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	2nd Circular Proposal/EWG Comments	EWG Proposal	Comments by China delegation
NISIN	234	6.25	233	3	Preservative	**2nd Circular Proposal:** Adopt as listed **Chile:** Does not support adoption due to restrictions on the use of this additive in Chile. **EU:** has technological justification been provided? Needed in pasteurized products? **ICGMA, IFAC:** Support adoption. Studies on liquid egg products show that some heat resistant Gram-positive bacteria can survive the pasteurization process and are capable of growth under refrigerated temperatures. These and other studies show that nisin is effective in controlling *Bacillus cereus*, *Listeria innocua and Listeria monocytogenes*, common contaminants associated with liquid egg processing and liquid egg products. Use of nisin can help enhance the safety of these product. See also 2nd Circular General Comment **:** Strongly opposes proposal because nisin – antibiotic. The problem of antibiotic resistance recognized by WHO. **Japan** supports the 2nd circular proposal. Nisin is used in liquid egg products to prevent microbiological deterioration and prolong its shelf-life. **South Africa:** Supports adoption. Studies on liquid egg products show that some heat resistant Gram-positive	Adopt as listed	CN: China approved nisin with max level 6.25mg/kg in FC 10.03" Egg products (changed physical properties)" and support adoption. Some bacteria, such as *bacillus cereus* may still survive in the process of heat treatment, and many of these surviving bacteria will growth at refrigeration temperatures. Nisin is effective in controlling those bacteria.

						bacteria can survive the pasteurization process and are capable of growth under refrigerated temperatures. These and other studies show that nisin is effective in controlling *Bacillus cereus*, *Listeria innocua and Listeria monocytogenes*, common contaminants associated with liquid egg processing and liquid egg products. Use of nisin can help enhance the safety of these products.		

Food Category No. 12.5.1 Ready-to-eat soups and broths, including canned, bottled, and frozen

Corresponding commodity standards: 117-1981 Acidity regulators, anticaking agents (in dehydrated product only), antifoaming agents, antioxidants, colours, emulsifiers, flavour enhancers, humectants, packaging gases, preservatives, stabilizers, sweeteners and thickeners used in accordance with Tables 1, 2 and 3 of the GSFA in FC 12.5 and parent and sub-categories. Flavourings should comply with CAC/GL 66-2008.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	2nd Circular Proposal/EWG Comments	EWG Proposal	Comments by China delegation
NISIN	234	5	233	6	Preservative	**2nd Circular proposal:** Adopt as listed **Chile, EU:** does not support. INS 234 was not listed in CS 117-1981. The EU is not convinced on the technological need. Canned products are usually sterilized. The EU is concerned if the intention is to reduce time/temperature requirements. As for chilled products – they have usually short shelf life and are intended to be heat treated before consumption – no need for this additive **India, FoodDrinkEurope:** Support proposal	Adopt as listed	CN: China approved nisin with max level 5mg/kg in this application and support adoption. Preservatives are permitted for use in CS 117-1981. Nisin prevents the growth of spores and pathogenic bacteria, also helps to maintain the texture and color of the canned products by reducing the

						ICGMA, IFAC: supports 2nd circular proposal. Microbial challenge study data shows that nisin helps retard outgrowth of Bacillus cereus in soups (chicken soup with dumplings and beef noodle soup were used as model systems). In ready-to-eat pasteurized, refrigerated soups, microbial challenge study data shows that nisin (1) delays outgrowth of Lactic acid spoilage bacteria; when held at 8 degrees C, nisin treated soups maintained keeping quality 11 -35 days longer than untreated soups (2) reduced initial Listeria monocytogenes counts by 1 log and treated soups maintained keeping quality 2 additional days compared to untreated controls when held under refrigeration at 8 degrees C. We note the comments of the EU with regard to the alignment work on CS 117-1981. It seems that we are again in a similar situation where a commodity standard allows a functional class of food additives (preservatives), but during the alignment process there was no consideration given to the use of other additives with a preservative function that may have been developed and reviewed by JECFA since the original commodity standard was last updated. We not precedent exists for CCFA to add the use of nisin to commoditized foods when the original commodity standard allowed the use of preservatives and technological justification for the use of nisin is provided. It appears that this precedent would apply in this case and so ICGMA suggests that immediate adoption of this provision. With CCFA's clear mandate to update food additive provisions in commodity standards in the absence of an active commodity committee and the precedent referenced, there is no reason to		processed time and temperature.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	2nd Circular Proposal/EWG Comments	EWG Proposal	Comments by China delegation
						use CCFA's limited resources to further review this provision. Technological justification exists and the relevant commodity standard provides for the use of preservatives. Nisin is a relatively new preservative, was not considered when the original commodity standard was developed in 1981 (more than 30 years ago), and has clear technological justification and food safety benefits. **India, Malaysia:** Support adoption **RU:** Opposes adoption because nisin – antibiotic. The problem of antibiotic resistance recognized by WHO. **South Africa:** Supports adoption. Use of nisin helps to reduce time/temperature requirements of the heat processing thus helping to maintain the textural and color quality of the canned products. In pasteurized chilled soups, nisin prevents/delays outgrowth of heat resistant spores and pathogenic bacteria such as Listeria; nisin helps reduce loss due spoilage and enhance the safety of these products.		

Food Category No. 12.8 Yeast and like products

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	2nd Circular Proposal/EWG Comments	EWG Proposal	Comments by China delegation
SORBITAN ESTERS OF FATTY ACIDS	491-495	15000	104	7	491: Emulsifier 492-494: Emulsifier, Stabilizer	**Initial proposal:** Adopt as listed	Adopt as listed	CN: Support adoption. China approved at maximum level of

					495: Emulsifier	**ICGMA, IFAC:** Support adoption. Sorbitan esters of fatty acids are used in dry yeast to improve the drying and rehydration properties of yeasts that are dried to very low water content. The material stabilizes the yeast cells during drying and increases the rehydration of the yeast in the dough, resulting in quicker fermentation and better batter properties (emulsification) **EFEMA:** Recommended dosage level is up to 15.000 mg/kg in dry yeast. Regarding Note 104, we consider that it would not be applicable since the sorbitanester is used in yeast, not in bread. The yeast could be used in bread and then a max. limit of 15.000 mg/kg is needed. We would thus suggest removing the Note 104. **FoodDrinkEurope, IFAC:** Supports adoption **ICGMA** supports 2nd circular proposal and notes earlier comments submitted by EFEMA, ICGMA and IFAC in response to the first circular that provide technological justification **Japan** supports 2nd circular proposal. This additive is used in dry yeast to preserve the leaving activity of the yeast by preventing leakage of yeast solids from the cells during rehydration. Max use level is 3,000 mg/kg. **RU:** supports discontinuation because no technological justification provided		10000 mg/kg in dry yeast. **Justification:** Sorbitan monostearate is used as emulsifier in dry yeast to protect yeast cell during drying process. It plays an important role in conserving effect on gassing activity of dry yeast. It is also a kind of surface active agent, which can stick to yeast cell wall to form a protective film.

Appendix 6 ***Proposed draft provisions related to FC 01.1.2 (Other fluid milks (plain)) with the exception of food additives provisions with the function of colour and sweetener.***

China General Comment:

All those food additives in the new FC01.1.2 submitted by China are came from a survey which only include products produced or sold in China but fall into this new FC01.1.2 (other fluid milks). The new FC01.1.2 (Other fluid milks(plain)) includes, but is not limited to plain recombined fluid milks, plain reconstituted fluid milks, plain composite milks, non-flavoured vitamin and mineral fortified fluid milks, protein adjusted milks, lactose reduced milk, and plain milk-based beverages. The use of emulsifiers, stabilizers and thickeners (EST) helps to control milk fat crystallization, prevent separation during storage and shipping, also provides smooth mouthfeel and homogeneous liquid texture to meet the expectation of the consumers. EST are often used in combination because of the technical synergy, which helps to achieve the best technical performance in the food products. For instance, The minerals in the fortified milk products (such as calcium, etc.) will cause flocculation and precipitation, gellan gum added into the product could protect to avoid the occurrence of these phenomenon; 2, In some high temperature sterilization process or for the fortified milk, taste will have great destruction due to the production process. Add mono- and diglycerides, sucrose fatty acid ester and other similar ESTs could improve and enhance the taste, and improve the customer experience. 3. There may be fat separation during the shelf life of Long-Shelf-Life product, Carrageenan, microcrystalline cellulose could effectively maintain the stability of the LSL product. All in all, The use of EST is not in the purpose of increasing the viscosity of the fluid milks or changing the natural texture of the milk, but based on the specific application requirement of the milk products which are categorized into the new FC 1.1.2.

Based on China data, natural tocopherols of milk is average 0.21mg/100g, natural vitamin C of milk is average 1mg/100g. China current food category modified fluid milk will correspond to GSFA new FC01.1.2 (Other fluid milks(plain)), and China approve the using of Ve, ascorbic acid and sodium ascorbate in food category modified fluid milk. In the survey which only includes commercial products fall in to FC01.1.2 (other fluid milks) produced or sold in China, industry adds 10-20 mg/100g tocopherols and 20-50 mg/100g ascorbic acid or sodium ascorbate into such products. The nature antioxidant of milk is not sufficient for the antioxidant need during the production and shelf life, consideration of fat and fatty acid content and type of fatty acid present in such product, the addition of soluble antioxidant can be indicated to assure a shelf stable product and which does not develop a rancid off taste and/or off-flavour.

CX/FA 18/50/7 Add.1 Provisions for food additives in FC 01.6.4

Food Category No. 01.6.4 (Processed cheese)4
Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	2nd Circular Proposal/EWG Comments	EWG Proposal	Comments by China delegation
NISIN	234	12.5	233	6	Preservative	**CX/FA 16/48/7**: Adopt **EU**: Accepts	Adopt	CN: Support adoption. China approved at maximum level of 12.5 mg/kg in processed cheese. Nisin is used in processed cheese as preservative

						ELC, IFAC: Supports adoption. Currently used in FC 01.6.4 products in international trade. Studies show that nisin @ 2.5-6.25 mg/kg can help control Clostridial spore outgrowth and spoilage in various processed emmental and cheddar cheeses and @ 2.5-12.5 mg/kg can reduce Bacillus spp. spores counts in pasteurized processed cheese. Nisin (@12.5- 250 mg/kg) also used to control Clostridia botulinum growth in pasteurized processed cheese spreads.(Use at 250 mg/kg is country specific and for lower sodium and higher moisture processed cheese spreads.) IFAC notes that several member states have supported this provision, and the only opposition appears to be based on antimicrobial concerns, which are not relevant here per JECFA. **India, Indonesia, Japan, Malaysia** : support adoption **Iran**: supports adoption due to pasteurization **Japan**: used in processed cheese as preservative. Maximum use level is 6.25 mg/kg **Malaysia**: Supports adoption **CX/FA 16/48/7 USA**: allowed in the USA in pasteurized processed cheese spreads with and without fruits, etc at 250 mg/kg as a preservative **RF:** Does not support due to antibiotic resistance concerns		

Morocco

Le CCFA 49 a discuté l'utilisation des stabilisants suivants dans les laits stérilisés UHT :

- Le carraghenane, la gomme gellane, la gomme de gar, la cellulose microcristalline, les acides gras mono ou di-glycérides ;
- Les polydextroses, l'alginate de sodium, le carboxymethyl cellulose sodique (gomme de cellulose*)*

Le Maroc **s'oppose quant à l'utilisation de stabilisants dans le lait UHT**.

Argumentaire : Le traitement du lait UHT stabilise le produit final, et en conséquence l'addition de stabilisants n'est pas nécessaire : Pas de justification technologique.

Nicaragua

Tema de Agenda 5 (a): Norma General para los Aditivos Alimentarios (NGAA): Informe del

GTE sobre la NGAA

(i) Comentarios generales

Nicaragua agradece a los participantes del Grupo de Trabajo Electrónico por la elaboración del documento y por brindarnos la oportunidad de presentar observaciones. En éste documento, únicamente se abordarán observaciones correspondientes a las disposiciones en las categorías de alimentos FC **01.1.1 y 01.1.2 (apéndices IV y VI)**

(ii) Comentarios específicos

Observaciones para la FC 01.1.1

Nicaragua no apoya la propuesta final para este aditivo, debido a que el uso de este puede modificar las propiedades organolépticas de un producto natural. Esta alteración podría inducir a un error conceptual. La leche líquida natural, por sus características, no necesita aditivos de este tipo.

- Carragenina,
- Goma gellan,
- Goma guar,
- Celulosa microcristalina,
- Mono-Y-Digliceridos de acidos grasos,
- Polidextrosas,
- Carboximetilcelulosa sódica,
- Alginato de sodio,
- Citrato Trisódico

Observaciones para la FC 01.1.2

Nicaragua está de acuerdo con el uso de aditivos con funciones estabilizantes, emulsionantes y antioxidantes para este tipo de productos, sin embargo, no está de acuerdo con utilizar dichos aditivos con funciones espesantes, ya que modificaría la naturaleza de los mismos.

The Philippines

Appendix 1: Provision for Food category 1.6.4

Food Category No.01.6.4 (Processed Cheese)

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	eWG Proposal	Philippine Comment
Nisin	234	12.5	233	6	Preservative	Adopt	Philippines supports to adopt 12.5 mg/kg. Nisin is useful for control of bacterial growth in processed cheese block and cheese spread

Appendix 1: Replies of Codex Committee on Processed Fruits and Vegetables (CCPFV) and Codex Committee on Fats and Oils (CCFO)

Food Category No. 02.1.2 Vegetable oils and fat

Horizontal approach (FA/45 CRD2 Appendix V): acidity regulators/ES&T not horizontally justified

Corresponding commodity standards: 019-1981, 210-1999: Allows specific antioxidants, antioxidant synergists, and anti-foaming agent; 033-1981: Does not allow food additives (except tocopherols)

Additive	INS	Max Level (mg/kg)	Step / Adopted	INS Functional Class	Technological justification provided by 28th CCFO	eWG Proposal	Philippine Comment
LECITHIN	322 (i)	30000	7	Antioxidant, Emulsifier	Widely used as an antioxidant in vegetable oils and fats, and/or as an antioxidant synergist in combination with tocopherols and is technologically justified, except for virgin oils and olive oils; Lecithin could be used in CS 19-1981 and CS 211-1999 as an alternative to other antioxidants or for its synergic effect with other antioxidants at levels up to 30,000 mg/kg	Adopt with new note "excluding use in virgin oils and olive oils."	Philippine supports the adoption of the food additive with the new note "excluding use in virgin oils and olive oils."
TRICALCIUM CITRATE	333(iii)	GMP	7	Acidity regulator, Emulsifying salt, Firming agent, Sequestrant, Stabilizer	Technologically justified as antioxidant synergists in products conforming to Standard for Edible Fats and Oils not Covered by Individual Standards (CODEX STAN19-1981) and Standard for Named Vegetable Oils	Adopt with Note XS33	Philippine supports the adoption of the food additive with the new note "XS33"
TRIPOTASSIUM CITRATE	332(iii)	GMP	7	Acidity regulator, Emulsifying salt, Sequestrant, Stabilizer		Adopt with Note XS33	Philippine supports the adoption of the food additive with the

					(CODEX STAN 210-1999); Is not technologically justified in this products confirming to Standard for Olive Oils and Olive Pomace Oils CODEX STAN 33-1981		new note "XS33"

Appendix 4: Provisions related to FC 01.1.1

Annex 1 – Stabilizers

Food Category No. 01.1.1 (Fluid milk (plain))

Corresponding commodity standards: none

Additive	**INS**	**Max Level (mg/kg)**	**Notes**	**Step**	**INS Functional Class**	**eWG Final Proposal**	**Philippine Comment**
CARRAGEENAN	407	10,000		7	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener	Adopt at ML 400; add new Note "for use in UHT treated milks only"; new Note "only for uses as emulsifier/stabilizer"	Philippine supports the adoption of the food additive at maximum level of 400mg/kg with new note "for use in UHT treated milks only"
GELLAN GUM	418	GMP		7	Stabilizer, Thickener	Adopt at ML 400; add new Note "for use in UHT treated milks only"; new Note "only for uses as emulsifier/stabilizer	Philippine supports the adoption of the food additive at maximum level of 400mg/kg with new note "for use in UHT treated milks only"

Appendix 4. Provisions related to FC 01.1.1

Annex 2- Trisodium Citrate (INS 331(iii)) in FC 01.1.1

The eWG is invited to comment on the proposal to adopt a provision for trisodium citrate (INS 331(iii)) at GMP in food category 01.1.1:

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted/ Year Revised	INS Functional Class	eWG Final Proposal	Philippine Comment
trisodium citrate	331(iii)	GMP		7	Acidity regulator, Emulsifier, Emulsifying salt, Sequestrant, Stabilizer	Adopt as GMP; add Note 227 "For use in sterilized and UHT treated milks only"; new Note "only for uses as emulsifier/stabilizer" Chair's Note: Phosphates are adopted in this food category with Note 227 "For use in sterilized and UHT treated milks only.	Philippine supports the adoption of the food additive at GMP with new note "for use in UHT treated milks only". Trisodium citrate is listed in Table 3 of the GSFA for use in all food categories and has been evaluated by JECFA with an ADI "not specified" supporting a level of GMP, thus generally considered as safe.

Appendix 5: Draft and proposed draft provisions in the GSFA in FC 09.0 to FC 16.0 with the exception of those additives with technological functions of colour or sweetener, adipates, nitrites and nitrates and the provisions related to FC 14.2.3

Food Category No. 09.0 Fish and fish products, including mollusks, crustaceans, and echinoderms

Corresponding commodity standards: None; Multiple standards apply to subcategories, some of which do not allow food additives

Additive		INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
~~POLYGLYCEROL ESTERS OF FATTY ACIDS~~		~~475~~	~~10,000~~		~~7~~	~~Emulsifier, Stabilizer~~	Discontinue in parent category; Discuss in subcategories	Support to discontinue and discuss in subcategories

Additive		INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
~~POLYGLYCEROL ESTERS OF INTERESTERIFIED RICINOLEIC ACID~~		~~476~~	~~5,000~~		~~7~~	~~Emulsifier~~	Discontinue in parent category; Discuss in subcategories	Support to discontinue and discuss in subcategories

Food Category No. 10.2.1 Liquid egg products

Horizontal approach: (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners 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 Final Proposal	Philippine Comment
ALUMINIUM SULFATE	520	100	6	7	Firming agent	Adopt at 30 mg/kg	Philippines does not support adoption. JECFA has recommended the reduction of aluminium exposure to the extent possible, .JECFA had established a new PTWI of 2 mg/kg body weight for aluminium from all sources.

Food Category No. 10.2.2 Frozen egg products

Horizontal approach: (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners 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 Final Proposal	Philippine Comment
ALUMINIUM SULFATE	520	100	6	7	Firming agent	Adopt at 30 mg/kg	Philippines Does not support adoption. JECFA has recommended the reduction of aluminium exposure to the extent possible, .JECFA had established a new PTWI of 2 mg/kg body weight for aluminium from all sources.

Food Category No. 12.4 Mustards

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment

TOCOPHEROLS	307a, b, c	200		7	Antioxidant	Adopt as listed	Philippines support the adoption at 200 mg/kg

Food Category No. 12.6 Sauces and like products

Corresponding commodity standards: None, 306R-2011 and 302-2011 correspond to subcategories

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
~~POLYGLYCEROL ESTERS OF FATTY ACIDS~~	~~475~~	~~10000~~		~~4~~	~~Emulsifier, Stabilizer~~	Discuss in subcategories	Philippines supports eWG proposal to discuss in subcategories
~~POLYGLYCEROL ESTERS OF INTERESTERIFIED RICINOLEIC ACID~~	~~476~~	~~5000~~		~~7~~	~~Emulsifier~~	Discuss in subcategories	Philippines supports eWG proposal to discuss in subcategories
~~SODIUM DIACETATE~~	~~262(ii)~~	~~2500~~		~~7~~	~~Acidity regulator, Preservative, Sequestrant~~	Discuss in subcategories	Philippines supports eWG proposal to discuss in subcategories

Food Category No. 12.6.1 Emulsified sauces and dips (e.g. mayonnaise, salad dressing, onion dip)

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
POLYGLYCEROL ESTERS OF INTERESTERIFIED RICINOLEIC ACID	476	5000		7	Emulsifier	Adopt at 5000	Philippines supports eWG proposal to adopt at 5000 mg/kg
PROPYLENE GLYCOL ALGINATE	405	10000		7	Bulking agent, Carrier, Emulsifier, Foaming agent, Gelling agent, Stabilizer, Thickener	Adopt at 8000	Philippines supports eWG proposal to adopt at 8000 mg/kg
SORBITAN ESTERS OF FATTY ACIDS	491-495	10000		7	491: Emulsifier	Adopt at 5000	Philippines supports eWG

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
					492-494: Emulsifier, Stabilizer 495: Emulsifier		proposal to adopt at 5000 mg/kg

Food Category No. 12.6.3 Mixes for sauces and gravies

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TARTRATES	334, 335(ii), 337	GMP	45	7	334: Acidity regulator, Antioxidant, Flavour enhancer, Sequestrant 335(ii), 337: Acidity regulator, Emulsifying salt, Sequestrant, Stabilizer	Adopt at 5000	Philippines supports eWG proposal to adopt at 5000 mg/kg
TOCOPHEROLS	307a, b, c	300		7	Antioxidant	Adopt as listed	Philippines supports eWG proposal to adopt at 300 mg/kg

Food Category No. 12.6.4 Clear sauces (e.g. fish sauce)

Corresponding commodity standards: 302-2011 specific acidity regulators, flavour enhancers, colours, preservatives, emulsifiers, sweeteners, stabilizers, and thickeners.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
SODIUM DIACETATE	262(ii)	2500			Acidity regulator, Preservative, Sequestrant	Adopt with note XS302	Philippines supports eWG proposal to adopt at 250 mg/kg with Note XS302

Food Category No. 12.9.1 Fermented soybean paste (e.g., miso)

Corresponding commodity standards: 298R-2009 allows Table 3 and specifically listed acidity regulators, antioxidants, colours, flavour enhancers, preservatives, stabilizers and sweeteners.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
BENZOATES	210-213	1000	13	3	Preservative	Adopt	Philippines supports eWG proposal to adopt at 1000 mg/kg with note excluding INS 213 and

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
							for use in foods corresponding to CS 298R-2009

Food Category No. 13.1 Infant formulae, follow-up formulae, and formulae for special medical purposes for infants
Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is on a case-by-case basis
Corresponding commodity standards: None; Multiple commodity standards correspond to subcategories

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
GUM ARABIC (ACACIA GUM)	414	GMP		4	Bulking agent, Carrier, Emulsifier, Glazing agent, Stabilizer, Thickener	Discontinue	Philippines supports eWG proposal to discontinue. Should be aligned with the Codex standard for Infant formula, follow up formulae and formula for special medical purposes for infants

Food Category No. 13.1.1 Infant formulae

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is justified on a case-by-case basis

Corresponding commodity standards: 72-1981: allows specific thickeners, emulsifiers, acidity regulators, antioxidants and packaging gases

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	10	72	7	Antioxidant	Adopt at 10 mg/kg with Note 72 “on the ready-to eat basis” and newnote “excluding INS numbers 307a and 307c.”– aligns with CODEX STAN 72-1981	Philippines supports eWG proposal to adopt at 10 mg/kg. in alignment with the Codex Stan 72-1981 Codex standard for Infant formula, and formula for special medical purposes for infants

Food Category No. 13.1.2 Follow-up formulae

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is on a case-by-case basis

Corresponding commodity standards: 156-1987: allows specific thickening agents, emulsifiers, pH-adjusting agents, antioxidants and flavours

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	30	72	7	Antioxidant	Adopt at 30 mg/kg with Note 72	Agree with 30mg/l with Note 72 as reconstituted in alignment with CODEX STAN 156-1987.

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

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is justified on a case-by-case basis

Corresponding commodity standards: 72-1981: allows specific thickeners, emulsifiers, acidity regulators, antioxidants and packaging gases

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	10	72	7	Antioxidant	Adopt at 10 mg/kg with Note 72 and new note “excluding INS numbers 307a and 307c”. – aligns with CODEX STAN 72-1981	Philippines supports eWG proposal to adopt 10mg/kg in alignment with the Codex Stan 72-1981 Codex standard for Infant formula, and formula for special medical purposes for infants

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

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is on a case-by-case basis

Corresponding commodity standards: 73-1981: allows specific thickening agents, emulsifiers, pH adjusting agents, antioxidants and flavours; **74-1981:** allows specific emulsifiers, acidity regulators, antioxidants, raising agents, thickeners, anticaking agents and packaging gases.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	1000		7	Antioxidant	Adopt at 300 mg/kg with Note 15	Philippines supports eWG proposal to adopt at 300 mg/kg on the fat for oil basis. Alignment with standard 73-1981 and 74-1981.

Food Category No. 14.1.4 Water-based flavoured drinks, including "sport," "energy," or "electrolyte" drinks and particulated drinks

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	1000	15	7	Antioxidant	Adopt at 200 mg/kg	Philippines supports theEWG proposal to adopt at 200mg/kg as an antioxidant.

Food Category No. 15.1 Snacks - potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	INS Functional Class	EWG Final Proposal	Philippine Comment
TOCOPHEROLS	307a, b, c	200		7	Antioxidant	Adopt at 200 mg/kg	Philippines supports theEWG proposal to adopt at 200mg/kg as an antioxidant.

Appendix 6: Proposed draft provisions related to FC 01.1.2 (Other fluid milks (plain)) with the exception of food additives provisions with the function of colour and sweetener.

Food Category No. 01.1.2 (Other fluid milks (plain)):

Descriptor: Includes all plain fluid milk, excluding products of food categories 01.1.1 Fluid milk (plain), 01.1.3 Fluid buttermilk (plain), and 01.2 Fermented and renneted milk products (plain). Includes, but is not limited to, plain recombined fluid milks, plain reconstituted fluid milks, plain composite milks, non-flavoured vitamin and mineral fortified fluid milks, protein adjusted milks, lactose reduced milk, and plain milk-based beverages. In this food category, plain products contain no added flavouring nor other ingredients that intentionally impart flavour, but may contain other non-dairy ingredients.

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	eWG proposal	Philippine Comments
CARRAGEENAN	407	GMP	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener		Adopt as listed	**Supports eWG proposal** Philippines supports eWG proposal to adopt as listed; Carrageenan is added to suspend particles in fluid milk. Carrageenan interacts with the milk proteins and keeps particles suspended.
GELLAN GUM	418	GMP	Thickener, Stabilizer		As listed	Philippines supports eWG proposal to adopt as listed; Gellan Gum is added to suspend particles in fluid milk. Gellan Gum interacts with the milk proteins and keeps particles suspended
LECITHIN	322(i)	GMP	Antioxidant, Emulsifier		Adopt as listed	Philippines supports eWG proposal to adopt as listed. Lecithin is added in milk to keep fats/oils dispersed and in

						suspension. Lecithin improve fat particle stability during homogenation process.
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	Anticaking agent, Bulking agent, Carrier, Emulsifier, Foaming agent, Glazing agent, Stabilizer, Thickener		Adopt as listed	Philippines supports eWG proposal to adopt as listed. Added to suspend particles in fluid milk. It also interacts with the milk proteins and keeps particles suspended.
POTASSIUM HYDROXIDE	525	GMP	Acidity regulator	227: For use in sterilized and UHT treated milks only	Adopt as listed	Philippines supports eWG proposal to adopt as listed. Added to adjust pH and improve protein stability and thus reduce sedimentation during shelf life.
SODIUM ASCORBATE	301	GMP	Antioxidant		Adopt as listed	Philippines supports eWG proposal to adopt as listed. Added to food as an antioxidant to prevent oxidation of fat, vitamins or other oxidation sensitive nutrients and thus maintain the quality of the liquid milk throughout the shelf life.
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	Bulking agent, Emulsifier, Firming agent, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener		Adopt as listed	Philippines supports eWG proposal to adopt as listed. Added to suspend particles in fluid milk. It also interacts with the milk proteins and keeps particles suspended.
TOCOPHEROLS (D-ALPHA-TOCOPHEROL, TOCOPHEROL CONCENTRATED, MIXED, DI-ALPHA-TOCOPHEROL	307a, 307b, 307c	200	Antioxidant		Adopt as listed	Philippines supports eWG proposal to adopt as listed Tocopherols are added as an antioxidant to prevent oxidation of fat, vitamins or other oxidation sensitive nutrients and thus maintain the quality of the liquid milk throughout the shelf life.

Republic of Korea

Appendix 4 : Provisions related to FC 01.1.1

The Republic of Korea does not agree with using emulsifier and/or stabilizer in FC 01.1.1. We do not permit any food additives for use in both milk and goat milk corresponding to FC 01.1.1. And technical needs for using emulsifier and/or stabilizer in UHT treated or sterilized milk of FC 01.1.1 should be considered further.

Appendix 5 : Provisions in Table 1 and 2 of the GSFA in food categories 09.0 through 16.0, with the exception of those additives with technological functions of color or sweetener, adipates, nitrites and nitrates and the provisions related to FC 14.2.3

The Republic of Korea does not support establishing maximum level of benzoates (INS 210-213) in FC 12.9.1. We do not permit benzoates (INS 210-213) in fermented soybean paste corresponding to FC 12.9.1.

Moreover, there are no technical needs for establishing maximum level of the benzoates, because such as benzoic acid is naturally occurring from soybean seed[1] and fermented soybean products[2].

[Reference]

1. Ill-Min Chung, Su-Hyun Seo(2011). Effect of processing, fermentation, and aging treatment to content and profile of phenolic compounds in soybean seed, soy curd and soy paste. Food Chemistry 127, 960~967.

2. Seung-Hee Lee(2013). Determination of Amounts of Benzoic Acid and Propionic Acid in Fermented Soybean Products. KOREAN J. Food SCI. TECHNOL. Vol 45, No.5, pp.565~570.

Global organization for EPA and DHA Omega-3s (GOED)

The Global Organization for EPA and DHA Omega-3s (GOED) is an association of processors, refiners, manufacturers, distributors, marketers, retailers and supporters of products containing eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) omega-3 fatty acids. GOED's membership represents a broad range of businesses, from small entrepreneurs to multinational food companies. The Organization's objectives are to educate consumers about the health benefits of EPA and DHA and to collaborate with government groups, the healthcare community and the industry on issues related to omega-3s, while setting high standards for our business sector.

GOED thanks the United States of America for leading the electronic working group (eWG) on the General Standard for Food Additives (GSFA) to the 50th Session of the Codex Committee on Food Additives (CCFA).

GOED would like to provide the following comments on the Report of the electronic Working Group on the GSFA, Codex document CX/FA 18/50/7, in relation to Agenda item 5(a) – General Standard for Food Additives, for discussion at the 50th Session of the Codex Committee on Food Additives (CCFA) to be held in Xiamen, Fujian Province, China from 26-30 March 2018. GOED kindly requests the following comments be circulated to Codex members and observers and/or uploaded to the Codex website as a conference rood document (CRD).

GOED supports the eWG Final Proposal for the following:

- Appendix 1

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

Mono- and Diglycerides of Fatty Acids (INS 471)
Adopt at GMP with note XS211 and new note "Only for use as an emulsifier in fish oil at GMP, or as an antifoaming agent in oils and fats for deep frying conforming to the Standard for Edible Fats and Oils Not Covered by Individual Standards (CODEX STAN 19-1981)"

- Appendix 5

Food Category No. 13.6 Food supplements
Tocopherols (INS 307 a, b, c)
Adopt at 2000 mg/kg with New Note "Except for use at 6,000 mg/kg, singly or in combination, on the basis of fish oil or algal oil content."

International Dairy Federation (IDF)

PROPOSED DRAFT PROVISIONS IN FC 01.1.2 (Appendice 6)

IDF comments are inserted in bold under the column eWG proposal and are submitted as a CRD as the initial submission to eWG was not included in the document CX/FA 18/50/7 Appendix 6.

Food Category No. 01.1.2 (Other fluid milks (plain)):

Descriptor: Includes all plain fluid milk, excluding products of food categories 01.1.1 Fluid milk (plain), 01.1.3 Fluid buttermilk (plain), and 01.2 Fermented and renneted milk products (plain). Includes, but is not limited to, plain recombined fluid milks, plain reconstituted fluid milks, plain composite milks, non-flavoured vitamin and mineral fortified fluid milks, protein adjusted milks, lactose reduced milk, and plain milk-based beverages. In this food category, plain products contain no added flavouring nor other ingredients that intentionally impart flavour, but may contain other non-dairy ingredients.

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
CETIC AND FATTY ACID ESTERS OF GLYCEROL	472a	GMP	Emulsifier, Sequestrant, Stabilizer	Use in non-flavoured vitamin and mineral fortified fluid milks only	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks **Comments to EWG:** **EFEMA:** Emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. fortified formula). This improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. **EU:** is the need related to fortification? Could be the technological effect described? See 2nd Circular General Comment below **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes **Japan:** Supports the proposal with the proposed note. Acetic and fatty acid esters of glycerol are used to prevent sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **Chile:** Supports adoption	Adopt as listed **IDF supports proposal.** **This food additive covers the surface of fortified nutrition ingredients such as mineral particles and facilitates the suspension in milk.**
ASCORBIC ACID, L-	300	GMP	Antioxidant		**Initial country comment:** **Thailand:** Used as antioxidant in milk products such as recombined milk, reconstituted milk and vitamin and mineral fortified milk. It helps to prevent oxidation of fat and vitamins and maintain products quality throughout shelf life. It is used to keep quality and enhance stability of milk products. Its use does not change the nature of products and disguise the effects of the use of faulty raw materials which could mislead consumer. **China:** Using in fluid milk, to keep quality in shelf life, and to protect product from developing a rancid off taste and/or off-flavor. **Comments to EWG:**	Adopt as listed **IDF supports proposal.** **For use in recombined or reconstituted milk products only.** **Products in this category originate**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					Brazil: See General Comment **EU:** could it be explained why the natural antioxidants of milk (e.g. tocopherols, beta-carotne, phospholipids) are not sufficient? There is no effect of the use ascorbic acid on the sensory properties of milk (taste)? Only needed in vitamin and mineral fortified milk? See 2nd Circular General Comment below **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes. **Chile:** Supports adoption	**from milk which has been concentrated and/or dried. These processing steps remove or degrade many of the "natural" anti-oxidants found in milk thereby necessitating for these products the addition of antioxidants to avoid these milk beverages from tasting "old" and rancid" to the consumer.**
CAROB BEAN GUM	410	GMP	Emulsifier, Stabilizer, Thickener		**Initial country comment:** **Thailand:** Used to stabilize colloidal suspension and prevent sedimentation of solid particles in milk (e.g. milk protein and fortified minerals) during storage period. Moreover, it also helps to improve the viscosity of product as per consumer preferences. Carob bean gum is usually used in combination with other EST at an optimized ratio. It is not used to disguise the effects of the use of faulty raw materials. **Comments to EWG:** **Brazil:** See General Comment below **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **EU Specialty Food Ingredients:** Support adoption. For use in UHT treated or sterilized, recombined and reconstituted milk as a stabilizer. Gelation of UHT milk during storage is a major factor limiting its shelf life. The gel which forms, is a matrix of aggregated protein complexes. Protein complexes are formed because of changes in the protein structure caused by the UHT treatment.	Adopt as listed **IDF supports proposal, but only for uses as emulsifier and stabilizer.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					Carob bean gum stabilize these protein complexes, so that matrix formation is delayed and consequently shelf life of the milk is extended. **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes. **ICGMA, IFAC:** Supports listing this provision with FC 01.1.2 given the rationale provided by Thailand. Carob bean gum is used in UHT treated or sterilized, recombined and reconstituted milk as a stabilizer. Gelatin of UHT milk during storage is a major factor limiting shelf life. The gel which forms is a matrix of aggregated protein complexes. Protein complexes are formed because of changes in the protein structure caused by the UHT treatment. Carob bean gum stabilizes these protein complexes so that the matrix formation is delayed and consequently, the shelf life is extended. **Chile:** Supports adoption **EU Specialty Foods, ICGMA, IFAC:** supports the 2nd circular proposal. Generally, Carob bean gum would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other EST (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Carob bean gum provides stabilization of proteins during processing and storage. Also, carob bean gum compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk. **South Africa:** Supports adoption. For use in UHT treated or sterilized, recombined and reconstituted milk as a stabilizer. Gelation of UHT milk during storage is a major factor limiting its shelf life. The gel which forms, is a matrix of aggregated protein complexes. Protein complexes are formed because of changes in the protein structure caused by the UHT treatment. Carob bean gum stabilize these protein complexes, so that matrix formation is delayed and consequently shelf life of the milk is extended	
CARRAGEENAN	407	GMP	Bulking agent, Carrier,		**Initial country comment:** **Thailand:** Added to aid the suspension of solid particles in milk products, prevent water-fat separation and protein sedimentation,	Adopt as listed

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
			Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener		especially in recombined milk and vitamin and mineral fortified formula. In milk system, carrageenan has the property of reacting with proteins which can increase the stability of products. Moreover, it also helps to improve the viscosity of product as per consumer preferences. Carrageenan is used usually in combination with other EST at an optimized ratio. **China:** To stabilize the fluid milk products, creating a thixotropic network together with dairy proteins, which can keep solids suspended, I.e. vitamin-mineral complexes in fortified milk products. **Japan:** Used to prevent sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **Comments to EWG:** **Brazil:** See General Comment below **Chile:** Helps to maintain the stability of the product over time after having undergone UHT thermal processing, and help maintain cocoa suspensions (chocolate milk), vitamin and mineral mixtures. In some cases, its helps to maintain the suspensions of colorants and flavorings. **Columbia:** As a stabilizer for use in milk-based drinks with BPM doses. As a stabilizer in milk-based beverages; Retains water and prevents phase separation, and may increase viscosity depending on the dose, has a technological function similar to that performed in the categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2 .1.2 Fermented (natural / simple) milks heat-treated after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below. **EU Specialty Food Ingredients, FoodDrinkEurope:** Support adoption. Agree with tech. justifications **ICGMA:** supports adoption. Carrageenan has a unique functionality as a stabilizer and thickener in dairy products given its interaction with casein. It is commonly used to suspend vitamins and minerals in fortified milks. **IFAC:** Supports the listing of this provision with FC 01.1.2 given the rationale provided by Thailand, China and Japan **Japan:** Supports the proposal. Carrageenan is used to prevent	**IDF supports proposal for uses as emulsifier and stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **NZ:** Supports use at GMP. Carrageenan is added to suspend particles in fluid milk to prevent sedimentation. Carrageenan interacts with the milk proteins and thus form a network that keeps the particles suspended. Carrageenan can be used in combination with other stabilizers to improve the stability during shelf life. Carrageenan can be used to improve the viscosity to improve mouthfeel **Chile:** Supports adoption **EU Specialty Foods, ICGMA, IFAC:** supports the 2nd circular proposal. In response to the general comments from the EU and Brazil on the use of stabilizers in this food category, would like to provide the following clarification: Carrageenan would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Carrageenan provides stabilization of proteins during processing and storage. Also, carrageenan compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk **South Africa:** Supports adoption	
CITRIC ACID	330	GMP	Acidity regulator, Antioxidant, Colour retention agent, Sequestrant	For use in non-flavoured mineral fortified fluid milks only	**Initial country comment:** **Japan:** Used to adjust pH to prevent degradation of protein in non-flavoured iron fortified fluid milks. **EWG Comments:** **EU:** needed only for iron fortified fluid milks? Why? **Japan:** Supports the proposal with the proposed note. **Chile, FoodDrinkEurope:** support adoption as listed	Adopt as listed **IDF supports proposal.**
CITRIC AND FATTY ACID ESTERS OF GLYCEROL	472c	GMP	Antioxidant, Emulsifier, Flour treatment agent, Sequestran	Use in non-flavoured vitamin and mineral fortified fluid milks only	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **EFEMA:** Emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. fortified formula). This	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
			t, Stabilizer		improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. **EU:** is the need related to fortification? Could be the technological need more elaborated? See 2nd Circular General Comment below **Food Drink Europe:** Supports this additive at GMP and for the mentioned functional classes. **Japan:** Supports the proposal with the proposed note. **Chile:** Supports adoption	
DIACETYLTARTARIC AND FATTY ACID ESTERS OF GLYCEROL	472e	120	Emulsifier, Sequestrant, Stabilizer	Use in non-flavoured vitamin and mineral fortified fluid milks only	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG Comments:** **EFEMA:** Support adoption. For use in recombined and reconstituted milk as stabilizer. Due to the anionic properties of diacetyltartaric and fatty acid esters of glycerol, the additive will stabilize and prevent protein aggregation during heat treatment. Preventing protein aggregation helps to stabilize the product during shelf life and to avoid precipitation. Furthermore, emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. fortified formula). This improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. **EU:** is the need related to fortification? Could be the technological need more elaborated? See 2nd Circular General Comment below **ICGMA, IFAC:** Supports adoption. When used in recombined and reconstituted milk as stabilizer, the additive will stabilize and prevent protein aggregation during heat treatment due to the anionic properties of diacetyltartaric and fatty acid esters of glycerol. Preventing protein aggregation helps to stabilize the product during shelf life and to avoid precipitation which is undesirable for consumers. **Japan:** Supports the proposal with the proposed note. **FoodDrinkEurope:** supports adoption as listed and Note **ICGMA:** Supports 2nd circular proposal **South Africa:** Supports adoption	Adopt as listed **IDF supports proposal**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					For use in recombined and reconstituted milk as stabilizer. Due to the anionic properties of diacetyltartaric and fatty acid esters of glycerol, the additive will stabilize and prevent protein aggregation during heat treatment. Preventing protein aggregation helps to stabilize the product during shelf life and to avoid precipitation.	
GELLAN GUM	418	GMP	Thickener, Stabilizer		**Initial country comment:** **Thailand:** Used to enhance the stability of fluid milks, especially in recombined milk, reconstituted milk and vitamin and mineral fortified formula. It helps to stabilize colloidal suspension and prevent sedimentation of solid particles in milk (e.g. milk protein and fortified minerals) during storage period. It also helps to improve the viscosity of product as per consumer preferences and enhance the organoleptic properties. Gellan gum is usually used in combination with other EST at an optimized ratio. **China:** To stabilize and prevent protein aggregation, fouling in UHT heat exchanger. When used in non-flavored vitamin and mineral fortified fluid milk, gellan could provide excellent suspension of insoluble particles without adding excessive mouthfeel viscosity or impacting flavor. **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **Brazil:** See General Comment **Columbia:** As a stabilizer for use in milk based drinks by BPM. As a stabilizer in milk-based beverages; Retains water and prevents phase separation, and may increase viscosity depending on the dose, has a technological function similar to that performed in the categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2 .1.2 Fermented (natural / simple) milks heat-treated after fermentation **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes **ICGMA, IFAC:** Supports adoption. Gellan Gum stabilizes through a number of functionalities, I.e. by giving steric stabilization through interaction with proteins; by increasing viscosity of the continuous phase and thereby reducing creaming rates, and finally by increasing protein load in the fat globule membranes and	Adopt as listed **IDF supports proposal for use as stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					thereby reducing risk of coalescence in the fat phase. Gellan Gum is furthermore able to create a thixotropic network together with dairy proteins, which can keep solids suspended, I.e. vitamin-mineral complexes in fortified products. **Japan:** Supports the proposal. Gellan gum is used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **NZ:** Supports the use at GMP. Gellan gum is added to suspend particles in fluid milk to prevent sedimentation. Interacts with the milk proteins and thus form a network that keeps the particles suspended. Can be used in combination with other stabilizers to improve the stability during shelf life. Can be used to improve the viscosity to improve mouthfeel. **Chile:** Supports adoption **EU:** See 2nd Circular General Comment below **EU Specialty Foods, ICGMA, IFAC:** supports the 2nd circular proposal. In response to EU and Brazil, the following clarification is provided: Gellan gum would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Gellan gum provides stabilization of proteins during processing and storage. Also, gellan gum compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk. **South Africa:** Supports adoption Gellan Gum can stabilize o/w emulsions through a number of functionalities, I.e. by giving steric stabilization through interaction with proteins; by increasing viscosity of the continuous phase and thereby reducing creaming rates, and finally by increasing protein load in the fat globule membranes and thereby reducing risk of coalescence in the fat phase. Gellan Gum is furthermore able to create a thixotropic network together with dairy proteins, which can keep solids suspended, I.e. vitamin-mineral complexes in fortified products.	
GUAR GUM	412	GMP	Emulsifier,		**Initial country comment:**	Adopt as listed

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
			Stabilizer, Thickener		**Thailand:** Used to stabilize colloidal suspension and prevent sedimentation of solid particles in milk (e.g. milk protein and fortified minerals) during storage period. Moreover, it helps to improve the viscosity of product as per consumer preferences. It also contributes to the organoleptic property by improving mouthfeel. Guar gum is usually used in combination with other EST at an optimized ratio. **EWG comments:** **Brazil:** See General Comment **Columbia:** As a stabilizer for use in milk-based drinks with BPM. As a stabilizer in milk-based beverages; Retains water and prevents phase separation, and can increase viscosity depending on the dose, has a technological function similar to that performed in the categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2 .1.2 Fermented (natural / simple) milks heat-treated after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **EU Specialty Food Ingredients, FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes **Chile:** Supports adoption **ICGMA, IFAC:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Thailand In response to the general comments from the EU and Brazil: Guar gum would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Guar gum provides stabilization of proteins during processing and storage. Also, guar gum compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk. **South Africa:** Supports adoption	**IDF supports proposal for uses as emulsifier and stabilizer only.**
GUM ARABIC	414	GMP	Bulking agent,	Use in non-flavoured	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured vitamin	Adopt as listed

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
			Carrier, Emulsifier, Glazing agent, Stabilizer, Thickener	vitamin and mineral fortified fluid milks only	and mineral fortified fluid milks. **EWG comments:** **Brazil:** See General Comment **Columbia:** As a stabilizer for use in milk-based drinks with BPM doses. As a stabilizer in milk-based beverages; Retains water and avoids phase separation, has a technological function similar to that which it performs in categories 01.2.1.1 Fermented (natural / simple) milk without heat treatment after fermentation and 01.2.1.2 Fermented (natural / simple) fermented milks Thermally after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes **IFAC:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Japan **Japan:** Supports the proposal with the proposed note **Chile:** Supports adoption	**IDF supports proposal for uses as emulsifier and stabilizer only.**
HYDROXYPROPYL STARCH	1440	GMP	Emulsifier, Stabilizer, Thickener		**Initial country comment:** **Thailand:** It prevents sedimentation of solid particles in milk (e.g. milk protein and fortified minerals) during storage period. Moreover, it helps to enhance the viscosity of product as per consumer preferences. It also contributes to the organoleptic property by improving mouthfeel. **EWG Comments:** **Brazil:** See comment above **Columbia:** As a thickener for use in milk-based drinks by BPM. As a stabilizer in milk-based beverages; Retains water and prevents phase separation, and may increase viscosity depending on the dose, has a technological function similar to that performed in the categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2 .1.2 Fermented (natural / simple) milks heat-treated after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below	Adopt as listed **IDF supports proposal for uses as stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					FoodDrinkEurope: Supports this additive at GMP and for the mentioned functional classes. **Chile:** Supports adoption	
LACTIC AND FATTY ACID ESTERS OF GLYCEROL	472b	GMP	Emulsifier, Sequestrant, Stabilizer	Use in non-flavoured vitamin and mineral fortified fluid milks only	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **EFEMA:** Emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. fortified formula). This improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **FoodDrinkEurope:** Supports proposal **Japan:** Supports the proposal with the proposed note. Lactic and fatty acid esters of glycerol are used to prevent sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **Chile:** Supports adoption	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**
LECITHIN	322(i)	GMP	Antioxidant, Emulsifier		**Initial country comment:** **Thailand:** Added to fluid milk to prevent separation of water and oil phase, especially in recombined milk and reconstituted milk. It also helps to stabilize the colloidal suspension of products and prevents sedimentation of solid particles in milk (e.g. milk protein and fortified minerals) during storage period. In addition, lecithin aids in homogenisation process. **China:** Used to create a stable fat globule membrane and improve the heat stability of recombined and reconstituted milk products. **Japan:** Used to prevent sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **EWG comments:** **Chile:** Helps to maintain the stability of the product over time after having undergone UHT thermal processing, and help maintain cocoa suspensions (chocolate milk), vitamin and mineral mixtures. In some cases, its helps to maintain the suspensions of colorants and flavorings. **EU Specialty Food Ingredients, FoodDrinkEurope:** Support adoption. Agree with tech. justifications. **ICGMA, IFAC:** Supports adoption. Information provided by our	Adopt as listed **IDF supports proposal.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					members is consistent with the technological justification provided by Thailand, China, and Japan. **Japan:** Supports the proposal. Lecithin is used to prevent sedimentation in non-flavoured vitamin and mineral fortified fluid milks. **NZ:** Supports use at GMP. Lecithin is added to improve fat particle stability. Covers the fat droplets created, for example during homogenization, and prevents them from coalescing again during shelf life and thus cause creaming **EU:** See 2nd Circular General Comment below **Malaysia, South Africa:** Support adoption	
MICROCRYSTALLINE CELLULOSE (CELLULOSE GEL)	460(i)	GMP	Anticaking agent, Bulking agent, Carrier, Emulsifier, Foaming agent, Glazing agent, Stabilizer, Thickener		**Initial country comment:** **Thailand:** Used as emulsifier and stabilizer in recombined and reconstituted milk as well as vitamin and mineral fortified milk. It provides good colloidal suspension and prevent sedimentation of solid particles in milk system (e.g. milk protein and fortified minerals) during storage period. It is used in recombined and reconstituted milk to prevent separation of water and oil phase. In addition, microcrystalline cellulose also helps to improve the viscosity of product and create satisfactory mouth feel as per consumer preferences. Microcrystalline cellulose is either used individually or in combination with other EST at an optimized ratio. **China:** Suspend colloids or particles in milk, such as milk protein and mineral in fortified products. It could also increase viscosity of the continuous water phase and thereby reducing creaming or sediment rates. **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milk **EWG Comments:** **Brazil:** See General Comment **Chile:** Helps to maintain the stability of the product over time after having undergone UHT thermal processing, and help maintain cocoa suspensions (chocolate milk), vitamin and mineral mixtures. In some cases, its helps to maintain the suspensions of colorants and flavorings. **Columbia:** As a stabilizer for use in milk-based drinks with BPM doses. As a stabilizer in milk-based beverages to ensure product stability over the shelf life, it retains water and prevents phase	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only** .

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					separation, and can increase viscosity depending on the dose, has a technological function similar to that in the categories 01.2.1.1 Fermented milks (natural / simple) without heat treatment after fermentation and 01.2.1.2 Fermented milks (natural / simple) heat-treated after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes.. **ICGMA, IFAC:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Thailand, China, and Japan. **Japan:** supports the proposal. Microcrystalline cellulose is used to prevent sedimentation in non-flavoured mineral fortified fluid milks. This additive is also used in non-flavoured vitamin fortified fluid milks for the same purpose. **NZ:** Supports use at GMP. Microcrystalline cellulose is added to suspend particles in fluid milk to prevent sedimentation. It creates a network that keeps the particles suspended and is often used in combination with other stabilizers to improve the stability during shelf life. Microcrystalline cellulose can be used to improve the viscosity to improve mouthfeel **EU Specialty Foods, ICGMA, IFAC:** supports the 2nd circular proposal. In response to the general comments from the EU and Brazil: Cellulose gel would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Cellulose gel provides stabilization of proteins during processing and storage. Also, cellulose gel compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk. **South Africa:** Supports adoption	

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471	GMP	Emulsifier, Stabilizer, Antifoaming agent		**Initial country comment:** **Thailand:** Used as emulsifier and stabilizer in products subject to food category 01.1.2. It helps to enhance stability of recombined and reconstituted products, especially for high fat content formula (milk fat, vegetable oil and DHA are added) by keeping the fat and water from separation. It also prevents the sedimentation of fine particle and increases colloidal stability of vitamin and mineral fortified formula. Moreover, it is used to reduce foam formation during processing. The excessive foam has an effect on further process (e.g. packing) which could lead to the poor quality of final products. Mono- and di-glyceride of fatty acids are usually used in combination with other EST at an optimized ratio. **China:** Have a significant impact on the interfacial tension between water and oil phase and as such is very important for facilitating emulsification in recombined products. Can prevent powdery mouthfeel and gritty texture and is used for controlling the emulsifier/protein ratio in emulsion membranes. This is important for shelf life of the products. **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **Columbia:** As an emulsifier / stabilizer for use in milk-based drinks with BPM doses It guarantees the stability of the emulsion, allowing no separation of grease during the life and prevents the sedimentation of fine particles, also increases the colloidal stability and prevents the sedimentation of fine particles in products fortified with vitamins and minerals. It has a technological function similar to that in categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2.1.2 Fermented milk (natural / simple) heat-treated after fermentation **EFEMA:** Support adoption. For use in recombined and reconstituted milk as stabilizer. Due to the anionic properties of diacetyltartaric and fatty acid esters of glycerol, the additive will stabilize and prevent protein aggregation during heat treatment. Preventing protein aggregation helps to stabilize the product	Adopt as listed **IDF supports proposal.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					during shelf life and to avoid precipitation. Furthermore, emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. fortified formula). This improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. **EU:** the natural emulsification properties of milk are not sufficient? Would a product containing vegetable oil still be considered "Other fluid milk"? See 2nd Circular General Comment below **FoodDrinkEurope:** Supports this additive at GMP and for the mentioned functional classes **ICGMA, IFAC:** Supports adoption given rationale provided by Thailand, China, and Japan. Mono- and diglycerides facilitate emulsification and enhance stability both in low fat and in high fat recombined and reconstituted products. **Japan:** Supports the proposal **Chile, FoodDrinkEurope:** Supports adoption **EFEMA:** supports adoption as listed. We would also like to reiterate our technical justification for INS 471 in this food category as the comments mentioned refer to INS 472e: Mono- and diglycerides facilitate emulsification and enhance stability both in low fat and in high fat recombined or reconstituted products. Furthermore, especially in recombined milk products, the "willingness" of the milk protein to form stable emulsions is negatively influenced. Emulsifiers help to form stable emulsions even in technologically challenging emulsions (i.e. recombined formula, especially recombined formula with high fat content or fortified formula). This improves the mouthfeel (sensory/texture) and shelf life (prevents sedimentation) of the milk. Emulsifiers lower the surface tension of a liquid and thus break arising bubbles. **South Africa:** Supports adoption. Mono- and diglycerides facilitate emulsification and enhance stability both in low fat and in high fat recombined and reconstituted products.	
NITROGEN	941	GMP	Packing gas		**Initial country comment:** **Thailand:** Used as packing gas for fluid milk products subject to food category 01.1.2. It is flushed to final products during filling step	Adopt as listed

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					EWG comments: Columbia: It is given as an adjuvant for beverages based on milk and other milk, helps maintain sensory characteristics, as there is no oxygen to prevent the oxidation of fat. **Chile, FoodDrinkEurope, Malaysia:** Support adoption as listed	**IDF supports proposal.** **(note it is adopted in 1.1.1)**
PECTIN	440	GMP	Emulsifier, Stabilizer, Thickener		**Initial country comment:** **Thailand:** Added to aid the suspension of solid particles (e.g. milk protein and fortified minerals) and to avoid the sedimentation during the shelf life. It is currently used in fluid milk products such as recombined milk, reconstituted milk (high protein formula) and fortified vitamins and minerals milks. Also helps to improve the viscosity of products and create satisfactory mouth feel as per consumer preferences. Pectin is either used individually or in combination with other EST at an optimized ratio. **EWG comments:** **Brazil:** See General Comment. **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below. **Chile, FoodDrinkEurope:** Supports adoption as listed. **IFAC:** Supports the listing of this provision with FC 01.1.2 given the rationale provided by Thailand	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii),	5000	Acidity regulator, Sequestrant, Stabilizer	Note 33: As phosphorous; Note 227, For use in sterilized and UHT treated milks only; and Note for singly or in combination	**Initial country comment:** **Thailand:** Used as acidity regulator to adjust the pH of milk thus enhance protein stability. It is also required as stabilizer to prevent protein sedimentation during UHT and sterilization process. Moreover, phosphates form chelate complexes with polyvalent metal ions (e.g. iron and zinc) which can prevent the oxidation of fat in milk. In vitamin and mineral fortified formula, phosphates are added to enhance stability by reducing the interfacial tension between liquid and solid. **China:** Could reduce the interfacial tension between liquid/solid, especially for using in the process of UHT milk as keep quality during the UHT process. It also could preserve the quality of milk by using as moisture conservative. **EWG comments:** **Columbia:** For use in category 01.1.2 Other liquid milk (natural / simple) in the products Other liquid milks and milk-based drinks	Adopt at 5000 without Note 227 **IDF supports propo**sal. See justification below.

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
	(ix); 451(i),(ii); 452(i) - (v); 542				sterilized and UHT only It becomes necessary to add phosphates to prevent the coagulation of proteins during the sterilization or ultrapasteurization process. The proportion of milk salt concentrations play an important role in the thermal stability of dairy products, calcium and magnesium ions tend to destabilize the protein system, while phosphates stabilize it. It has a technological function equal to that it performs in category 01.1.1 Liquid milk (natural / simple), where it is already authorized for references with ultra-high temperature (UHT) treatments, sterilized. **EU:** why is ML of 5000 ppm needed? In FC 01.1.1 ML 1500 ppm is sufficient. See 2nd Circular General Comment below **FoodDrinkEurope:** adoption as listed without note **IFAC:** Supports adoption given rationale provided by Thailand and China. **Japan:** proposes Note 227 be deleted since phosphates are used not only in sterilized and UHT treated milks but also in non-flavoured vitamin and mineral fortified fluid milks. Disodium diphosphate (INS 450(i)) is used in non-flavoured mineral fortified milks to prevent sedimentation. **NZ:** Supports the use at ML = 5000mg/kg. Phosphates improve protein stability in sterilized products (e.g. concentrated products like recombined evaporated milks/REM). It also improves the stability during shelf life (reducing sedimentation) and reduces fouling during UHT process by chelating polyvalent minerals like calcium **Chile** supports adoption as listed	
IDF comment	**Products within FC 01.1.2 may be nutrient fortified and fortified plain milks may require higher levels of phosphates than non-fortified milks. Fortified nutrients can affect the pH and the mineral equilibrium of milk. This FC also covers reconstituted and recombined milk products, which have got a lower protein stability due to the manufacturing processes. Phosphates are added to re-adjust pH and re-establish a mineral and protein equilibrium,, which is necessary to obtain heat stability and avoid fouling during processing. Therefore a higher ML (5000 mg/kg) is needed for FC 01.1.2.**					

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
POLYDEXTROSE	1200	GMP	Stabilizer, Thickener		**Initial country comment:** **Thailand:** Used as thickener to improve organoleptic properties of milk products and increase viscosity of product as per consumer preferences. It also helps to enhance the stability of milk, especially vitamin and mineral fortified formula. **China:** Added to low/reduced fat milks, contributing to mouthfeel and the perception of creaminess, thereby increasing organoleptic acceptability to consumers. **EWG comments:** **Brazil:** This additive will have an impact on the viscosity of the product, changing the character of fortified milk and misleading the consumer; disagreeing with what is proposed in section 3.2 of the GSFA. **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **EU Specialty Food Ingredients, FoodDrinkEurope:** Support adoption as listed and note. **ICGMA, IFAC:** Supports adoption. Polydextrose imparts a smoother texture and richer consistency to milk products, particularly in reduced sugar/fat products. Study data indicates that impact on viscosity is process and formula dependent. No change in viscosity was noted in - heat treated UHT products: up to 3.5% - pasteurized plain products: up to 1.8% - pasteurized sugar sweetened products: up to 3% At higher levels, sensory data show that milk products containing polydextrose were perceived as less watery i.e. had more body and a better mouthfeel **South Africa:** Supports adoption	Adopt as listed **IDF supports proposal for uses as stabilizer only.**
POLYGLYCEROL ESTERS OF FATTY ACIDS	475	1000	Emulsifier, Stabilizer		**Initial country comment:** **China:** It can impact the surface tension between water and oil phase to help the formation of emulsion in recombined milk products. Polyglycerol esters of fatty acids can also reduce fat creaming. And keep the product stable during the shelf life, especially for recombined whole milk products. **Japan:** Used in non-flavoured vitamin and mineral fortified milk to stabilize calcium or iron which are used for fortification.	Adopt as listed **IDF supports proposal.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					EWG comments: **EU:** the natural emulsification properties of milk are not sufficient or affected in recombined milk? Needed only in iron or calcium fortified milk? See 2nd Circular General Comment below **EFEMA:** Support adoption. Agree with technical justifications. **FoodDrinkEurope:** supports adoption as listed without note **Chile, South Africa :** Supports adoption	
POTASSIUM CARBONATE	501(i)	GMP	Acidity regulator, Anticaking agent, Raising agent, Stabilizer, Thickener	Use in non-flavored vitamin and mineral fortified milks only	**Initial country comment:** **Japan:** Used in non-flavoured mineral fortified milk to prevent denaturation of protein during pasteurization. **EWG comments:** **Brazil:** See General Comment **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **Chile, FoodDrinkEurope:** Supports adoption as listed and note. **Japan:** Supports the proposal. Potassium carbonate is used to prevent denaturation of protein during pasteurization in non-flavoured mineral fortified fluid milks. This additive is also used in vitamin fortified fluid milks for the same purpose	Adopt as listed **IDF supports proposal for uses as acidity regulator and stabilizer only.**
POTASSIUM HYDROXIDE	525	GMP	Acidity regulator	227: For use in sterilized and UHT treated milks only	**Initial country comment:** **Thailand:** Widely use as acidity regulator. It is used to adjust the pH of milk enhancing protein stability of sterilized and UHT treated milk. Potassium hydroxide is alkali agent that does not adversely affect the taste and smell of milk products. In addition, using of potassium salt is more suitable when compared to sodium salt because the sodium salt may cause excessive amount of sodium in milk products. Potassium hydroxide is permitted in FC 13.1.1 “Infant formulae”. **EWG comments:** **Columbia:** As a regulator of acidity in beverages based on sterilized milks and UHT, it is used to adjust the pH of the milk that improves the stability of the protein. Potassium hydroxide is an alkaline agent that does not adversely affect the taste and smell of dairy drinks. It is used in 01.4.3 Curd cream (natural / simple), 13.2 Supplementary foods for infants and young children, among others **NZ:** Supports use at GMP. Potassium hydroxide is added as an acidity regulator to adjust pH to	Adopt as listed **IDF supports proposal.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					improve protein stability and thus reduce sedimentation during shelf life. Adding potassium hydroxide (or in combination with sodium hydroxide) can improve the overall mineral balance in liquid milk products already containing high amounts of sodium **Chile, FoodDrinkEurope:** Support adoption as listed. **EU:** See 2nd Circular General Comment below	
PROPYLENE GLYCOL ALGINATE	405	4000	Emulsifier, Stabilizer, Thickener		**Initial country comment:** **China:** Stabilizes milk protein by providing steric stabilization. Propylene glycol alginate can interact with milk proteins and adsorbed on the surface of casein micelles with a functionality of stabilization in recombined milk. As the molecule of propylene glycol alginate contains both of hydrophobic and hydrophilic groups, it also has interfacial activity and is helpful to stabilize the recombined products during shelf life. **Comments to first circular: Brazil:** See General Comment **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **ICGMA:** Supports adoption. Information provided by our members is consistent with the technological justification provided by China **Chile, ICGMA :** Supports adoption as listed	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**
SODIUM ASCORBATE	301	GMP	Antioxidant		**Initial country comment:** **Thailand:** Used as antioxidant in fluid milk such as recombined milk, reconstituted milk and non-flavoured vitamin and mineral fortified milk. It helps to prevent oxidation of fat and vitamins, and maintain products quality throughout shelf life. The use of sodium ascorbate together with tocopherols shows a synergistic effect. **China:** Using in fluid milk, to keep quality in shelf life, and to protect product from developing a rancid off taste and/or off-flavor. **EWG comments:** **Brazil:** Understands as inadequate the provision of antioxidants in the already-reconstituted and recombined milk. Brazil understands that it is technologically justified to use antioxidants in milk powder. However, from the moment of reconstitution (recombination), Brazil considers that the generated product is similar to the whole milk, for which there is no technological justification for adding antioxidants, tolerating only the antioxidants transferred from the milk powder. Also, whole milk already has natural antioxidants that already guarantee the stability of the product.	Adopt as listed **IDF supports proposal**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					Columbia: As a stabilizer for use in milk-based drinks with BPM doses. As a stabilizer in milk-based beverages to ensure product stability over the shelf life, it retains water and prevents phase separation, and can increase viscosity depending on the dose, has a technological function similar to that in the categories 01.2.1.1 Fermented milks (natural / simple) without heat treatment after fermentation and 01.2.1.2 Fermented milks (natural / simple) heat-treated after fermentation **EU:** could it be explained why the natural antioxidants of milk (e.g. tocopherols, beta-carotene, phospholipids) are not sufficient? Is there no effect of the use ascorbic acid on the sensory properties of milk (taste)? Only needed in vitamin and mineral fortified milk? See 2nd Circular General Comment below **NZ:** Supports use at GMP. Sodium ascorbate is added as an antioxidant to prevent oxidation of fat, vitamins or other oxidation sensitive nutrients and thus maintain the quality of the liquid milk throughout the shelf life. It can be used in combinations with other antioxidants **Chile, FoodDrinkEurope:** Supports adoption as listed.	
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	GMP	Bulking agent, Emulsifier, Firming agent, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener		**Initial country comment:** **Thailand:** Used as emulsifier, stabilizer in fluid milk such as recombined milk, reconstituted milk and vitamin and mineral fortified fluid milk. It provides good colloidal suspension and prevent sedimentation of solid particles in milk system (e.g. milk protein and fortified minerals) during storage period. It is used in recombined and reconstituted milk to prevent separation of water and oil phase. Moreover, CMC also helps to improve the viscosity of product as per consumer preferences. CMC is either used individually or in combination with other EST at an optimized ratio. **China:** Stabilizes milk by increasing viscosity of the continuous water phase and thereby reducing creaming or sediment rates in fortified milk products, such as calcium fortified. **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **Brazil:** See General Comment **Chile:** Helps to maintain the stability of the product over time after having undergone UHT thermal processing, and help maintain	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					cocoa suspensions (chocolate milk), vitamin and mineral mixtures. In some cases, its helps to maintain the suspensions of colorants and flavorings. **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **ICGMA, IFAC:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Thailand, China, and Japan. **Japan:** Supports the proposal. Sodium carboxymethyl cellulose is used to prevent sedimentation in non-flavoured mineral fortified fluid milks. This additive is also used in vitamin fortified fluid milks for the same purpose. **NZ:** Supports use at GMP. Carboxymethyl cellulose is added to suspend particles in fluid milk to prevent sedimentation. It creates a network that keeps the particles suspended and is often used in combination with other stabilizers to improve the stability during shelf life. Carboxymethyl cellulose can be used to improve the viscosity to improve mouthfeel. **EU Specialty Foods, ICGMA, IFAC:** supports the 2nd circular proposal. In response to the general comments from the EU and Brazil: Cellulose gum would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Cellulose gum provides stabilization of proteins during processing and storage. Also, cellulose gum compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk **Chile, South Africa, FoodDrinkEurope:** Supports adoption	
SUCROGLYCERIDE S	474	1000	Emulsifier	Note 348: Singly or in combination: Sucrose esters of fatty acids (INS 473),	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **Comments to first circular:** **EU:** is the need related to fortification? Could the technological effect be described? Used as an emulsifier?	Adopt with new note "for use in vitamin and mineral fortified milks only"

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
				sucrose oligoesters, type I and type II (INS 473a) and sucroglycerides (INS 474).	**Japan:** Supports the proposal with Note 348. Sucroglycerides share the ADI with Sucrose esters of fatty acids (INS 473) and Sucrose oligoesters type I and II (INS 473a). Sucrose esters of fatty acids are used to prevent sedimentation in non-flavoured mineral fortified fluid milks **EWG comments:** **Chile, FoodDrinkEurope:** Supports adoption as listed **EU:** See 2nd Circular General Comment below **South Africa:** Supports adoption	**IDF supports proposal**
SUCROSE ESTERS OF FATTY ACIDS	473	1000	Emulsifier, Foaming agent, Glazing agent, Stabilizer	Note 348	**Initial country comment:** **China:** It can impact the surface tension between water and oil phase to help the formation of emulsion in recombined products and calcium fortified milk products. Can reduce fat creaming. This is very helpful for shelf life of the products **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **EU:** the natural emulsification properties of milk are not sufficient or affected in recombined milk? See 2nd Circular General Comment below **EU Specialty Food Ingredients:** Support adoption. Agree with tech. justifications. **ICGMA:** Supports adoption. Information provided by our members is consistent with the technological justification provided by China and Japan. **Japan:** Supports the proposal with Note 348. Sucrose esters of fatty acids are used to prevent sedimentation in non-flavoured mineral fortified fluid milks. Sucrose esters of fatty acids share the ADI with Sucroglycerides (INS 474) and Sucrose oligoesters type I and II (INS 473a). **Chile, FoodDrinkEurope, ICGMA:** Supports adoption as listed	Adopt as listed **IDF supports proposal**
SUCROSE OLIGOESTERS, TYPE I AND II	473a	1000	Emulsifier, Glazing agent, Stabilizer	Note 348	**Initial country comment:** **Japan:** Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **EU:** is the need related to fortification? Could the technological effect be described? **Japan:** Supports the proposal with Note 348. Sucrose oligoesters	Adopt with new note" for use in vitamin and mineral fortified milks only" **IDF supports proposal**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					type I and II share the ADI with Sucrose esters of fatty acids (INS 473) and Sucroglycerides (INS 474). Sucrose esters of fatty acids are used to prevent sedimentation in non-flavoured mineral fortified fluid milks **Chile, FoodDrinkEurope:** supports adoption as listed	
TOCOPHEROLS (D-ALPHA-TOCOPHEROL, TOCOPHEROL CONCENTRATED, MIXED, DI-ALPHA-TOCOPHEROL	307a, 307b, 307c	200	Antioxidant		**Initial country comment:** **China:** Could keep products' quality in shelf life, and to protect product from developing a rancid off taste and/or off-flavor. **EWG Comments:** **Brazil:** Understands as inadequate the provision of antioxidants in the already-reconstituted and recombined milk. Brazil understands that it is technologically justified to use antioxidants in milk powder. However, from the moment of reconstitution (recombination), Brazil considers that the generated product is similar to the whole milk, for which there is no technological justification for adding antioxidants, tolerating only the antioxidants transferred from the milk powder. Also, whole milk already has natural antioxidants that already guarantee the stability of the product. **EU:** milk naturally contains certain level of tocopherols – it is not sufficient? See 2nd Circular General Comment below **NZ:** supports use at ML = 200mg/kg and in particular, supports the use of tocopherol concentrated mixed (INS 307b). Tocopherols are added as an antioxidant to prevent oxidation of fat, vitamins or other oxidation sensitive nutrients and thus maintain the quality of the liquid milk throughout the shelf life. Can be used in combinations with other antioxidants. **Chile, FoodDrinkEurope:** supports adoption as listed	Adopt as listed **IDF supports proposal**
TRISODIUM CITRATE	331(iii)	GMP	Acidity regulator, Emulsifier, Emulsifying salt, Sequestrant, Stabilizer		**Initial country comment:** **Thailand:** Used to enhance stability of milk products by forming chelate complexes with polyvalent metal ions (e.g. iron and zinc) which can prevent the oxidation of fat in milk. It is also required as stabilizer to prevent sedimentation of protein. **China:** Could help to prevent protein denature and maintain a good stability during the manufacture processing of the products in FC 1.1.2. **Japan:** Used to adjust pH to prevent sedimentation in non-flavoured mineral fortified fluid milks **EWG comments:**	Adopt as listed **IDF supports proposal.** **The comments from Japan are technologically justified.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					Columbia: For use in category 01.1.2 Other liquid milk (natural / simple) in the products Other liquid milks and milk-based drinks sterilized and UHT only. It fulfills the technological function of stabilizer of the protein, during the heat treatment. It has an unspecified ADI and poses no appreciable risk to the health of consumers. It has a technological function similar to that it plays in the categories: - 01.1.4 Flavored liquid dairy drinks - 01.3 Condensed milk and similar products - 01.2.1.2 Fermented milk (natural / simple) heat-treated after fermentation - 01.4.1 Pasteurized cream (natural / plain) - 01.4.2 Sterilized and UHT creams, whipping cream creams and creams with reduced fat content (natural / plain) **EU Specialty Food Ingredients:** Support adoption. Agree with tech. justifications. **ICGMA:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Thailand, China, and Japan. **Japan:** Supports the proposal. Trisodium citrate is used to adjust pH to prevent sedimentation in non-flavoured mineral fortified fluid milks **Chile, South Africa, FoodDrinkEurope:** Supports supports adoption as listed. - **EU:** See 2nd Circular General Comment below	
XANTHAN GUM	415	GMP	Emulsifier, Foaming agent, Stabilizer, Thickener		**Initial country comment:** **Thailand:** Used as emulsifier, stabilizer in fluid milk such as recombined milk, reconstituted milk and vitamin and mineral fortified fluid milk. It provides good colloidal suspension and prevent sedimentation of solid particles in milk system (e.g. milk protein and fortified minerals) during storage period. It also helps to improve the viscosity of product and mouthfeel as per consumer preferences. Xanthan gum is either used individually or in combination with other EST at an optimized ratio. **China:** Stabilizes fluid milk products by giving steric stabilization through interaction with proteins. It also helps to keep solids	Adopt as listed **IDF supports proposal for uses as emulsifier and stabilizer only.**

Additive	INS	Max Level (mg/kg)	INS Functional Class	Proposed Notes	Initial country comment/eWG comments	eWG proposal
					suspended, I.e. vitamin-mineral complexes in fortified products. **Japan**: Used to prevent sedimentation in non-flavoured mineral fortified fluid milks. **EWG comments:** **Brazil:** See General Comment **Columbia:** As a stabilizer for use in milk-based drinks with BPM doses. As a stabilizer in milk-based beverages; Retains water and avoids phase separation and can increase viscosity depending on the dose, has a technological function similar to that performed in the categories 01.2.1.1 Fermented milk (natural / simple) without heat treatment after fermentation and 01.2. 1.2 Fermented milk (natural / simple) heat-treated after fermentation **EU:** concerned with the use of thickeners which have impact on the nature of milk. See 2nd Circular General Comment below **Chile, EU Specialty Food Ingredients, FoodDrinkEurope:** Support supports adoption as listed. **ICGMA, IFAC:** Supports adoption. Information provided by our members is consistent with the technological justification provided by Thailand, China, and Japan. **Japan:** Supports the proposal. Xanthan gum is used to prevent sedimentation in non-flavoured mineral fortified fluid milks. Xanthan gum is also used in non-flavoured vitamin fortified fluid milks for the same purpose **EU Specialty Foods, ICGMA, IFAC**: supports the 2nd circular proposal. In response to the general comments from the EU and Brazil: Xanthan gum would be used in combination with other emulsifiers, stabilizers, and thickeners in recombined and reconstituted UHT milk. Other emulsifiers, stabilizers, and thickeners (for example mono- and diglycerides of fatty acids) control fat crystallization and prevent creaming during storage. Xanthan gum provides stabilization of proteins during processing and storage. Also, xanthan gum compensates for loss of mouthfeel, which is characteristic for recombined and reconstituted UHT milk when compared to fresh milk. **South Africa:** Supports adoption	

International Fruit and Vegetable Juice Association (IFU)

Comments:

About IFU

The International Fruit and Vegetable Juice Association (IFU) has been for more than sixty years the only representative of the worldwide fruit and vegetable juice and nectar industry. The members of IFU are producers of juices and related products, associations, traders, machinery and packaging producers, public and private scientific institutions from around the world.

Introduction

The IFU would like to thank the work of the EWG compiling such a comprehensive review and providing us with an opportunity to comment on their proposals.

In the General Standard for Food Additives (CODEX STAN 192-1995) the justification for the use of additives are listed in section 3.2. Specifically, *"To enhance the keeping quality or stability of a food or to improve its organoleptic properties, provided that this does not change the nature, substance or quality of the food as to deceive the consumer*."

When the CODEX GENERAL STANDARD FOR FRUIT JUICES AND NECTARS (CODEX STAN 247-2005) was developed in 2000/5 the Codex international experts reviewed a large number of additives and came to the conclusion that there was no technological need for these additives, as proposed by the EWG for the CCFA 50, other than pectins, in juice and nectars. This conclusion was approved by Codex and reflected in the published Codex Standard.

Since that time technology has developed further and there has been no such technological change that necessitates the approval of further additives that are not found to be naturally occurring in fruit and vegetables from which juices are extracted. The modern juice and nectar technologies can assure product quality and stability by using physical means instead of additives.

Juices and Nectars vs. Juice based beverages

We wonder if there is some confusion in understanding the difference between juices (14.1.2.) and nectars (14.1.3.) and beverages in product category 14.1.4 "Water-based flavoured drinks" that also includes products based on fruit and vegetable juices.

This category (14.1.4) already authorises the addition of these additives under consideration by the EWG. It is currently possible to mix these additives with juices and label them as juice-based beverages, so there is no need to change the list of permitted additives to juices (14.1.2.)and nectars (14.1.3.). Many other additives are also approved for use in this category (14.1.4) which enables a wide scope for product development and innovation using these proposed additives.

On the other hand, the production of juices and nectars shall apply suitable processes, which "maintain the essential physical, chemical, organoleptical and nutritional characteristics of the juices of the fruit from which it comes.", CODEX STAN 247-2005.The IFU believes that the composition of juices should be natural and comparable in chemical composition to the fruit or vegetable it was extracted from. The maintenance of such properties are specified in section 3.2 Quality Criteria of the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). Specifically, "The fruit juices and fruit nectars shall have the characteristic colour, aroma and flavour of the juice from the same kind of fruit from which it is made."

Authenticity

Very importantly, the addition of chemical substances not otherwise naturally found in fruits would also contradict section 3.3 (Authenticity) of the Codex juice and nectar standard: "Authenticity is the maintenance of the product's essential physical, chemical, organoleptic and nutritional characteristic of the fruit (s) from which it comes."

Maintaining the authenticity of fruit and vegetable juices and nectars is an important goal for the international juice industry, supporting the interests of the consumer.

These EWG proposals would compromise the authenticity of juices and nectars.

Consumer

Consumers expect natural products to have clean labels. Consumers make food choices in an environment of information overload and the situational context often impedes spending time processing product information. It is therefore essential for maintaining consumer trust that fruit juices and nectars retain their naturalness without the addition of unnecessary additives. It would be misleading to the consumer if it became permissible

to add foreign substances, such as those proposed, to a natural product group where the only indication of their presence was on the ingredient list, which is unlikely to be considered at the time of purchase.

The IFU believes these proposals run counter to the interest of the consumer.

Xanthan gum and other thickeners, calcium lactate and tri-sodium citrate

The IFU Science and Technology Commission have concluded from their assessments that there is no technical need for the stabelisers/thickeners xanthan gum, gellan gum and sodium carboxymethyl cellulose (cellulose gum) in juices and nectars. Fruits and vegetables contain a high concentration of pectic substances which are able to stabilize cloudy fruit juices and nectars and fruit and vegetable purees. In many fruits the pectin contents are so high that their concentration must be reduced partially. The request to approve the addition of calcium lactate and trisodium citrate is presumably a functional need to support the use of gellan gum. As the IFU is opposed to the use of gellan gum we see no technological need to approve the addition of calcium lactate and trisodium citrate to food category 14.1.2.1 Fruit Juice.

It is a task of modern juice and nectar technology to assure product quality and stability by using physical means instead of additives. Desired levels of viscosity and mouth feel can be achieved by appropriate extraction of pectins from the tissue of fruits and vegetables and/or by blends of juices with 100% purees.

Thickeners may artificially change the sensory properties, especially the mouth feel and the aroma properties, which is in contradiction of the quality definition in the standard for juices and nectars.

It is not necessary that calcium lactate should be added to prevent browning as appropriate processing and packaging is commonly used to prevent this problem especially during shelf life. It is claimed that the technological justification is documented in the report of CCFA 46 though we cannot see this and therefore its proposed use should be scrutinized.

Tartrates

The proposed approval to permit the addition of tartrates to vegetable juices, vegetable nectars and their concentrates makes no sense as these are not predominantly found in these products and there is no technological need. Tartrates are only permitted in grape juices where they are present.

Phosphates

The addition of phosphate to vegetable juices, vegetable nectars and their concentrates is not necessary. One of its function is to help the effectiveness of benzoate and sorbates (note 40) however benzoates and sorbates are not permitted in these food categories. Phosphates are also not necessary to correct product flavour or acidity as this can be achieved naturally by blending with other juices.
The AIJN Code of Practice for the Evaluation of Fruit and Vegetable Juices is an international reference guideline used by the industry, control bodies and laboratories to evaluate the authentic characteristics of juices. An addition of phosphates to vegetable products would adulterate the corresponding AIJN Code of Practice reference figure significantly, thus interfering with authenticity analytical results.

Colours

We note in the tables summarising the additives approved in various product categories (CCFA50 - INFORMATION DOCUMENT TO THE DISCUSSION ON THE GSFA, Table II) that Azorubine, Caramel II, Tartrazine and Zeaxanthin are also suggested for approval, though these were not reviewed by the EWG. The IFU is very strongly against the approval of these colours to the product categories of vegetable juices and nectars.

Pectin

IFU can support the proposed use of pectin as it is naturally present in those products.

CCPFV

Where the EWG proposes to hold approval of an additive pending a review from the CCPFV then in the spirit of compromise, although we do not agree with their approval, we can accept a review by the commodity committee responsible for the juice and nectar standard. We also consider the CCPFV to be the most appropriate committee to agree changes to standards relating to juices and nectars.

Legislation

It is worth noting that many countries and regions that have traditionally significant production and consumption of juices and nectars also prohibit the addition of these proposed new additives (other than pectins) in juices and nectars by law. For example: In fruit and vegetable juices and nectars the addition is not permitted in Algeria, Israel, European Union and its member states, Eurasian and the Economic Union (Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia) and Turkey. In fruit and vegetable juices xanthan gum is not permitted in South Africa.

Conclusion:

Except for pectin, the IFU is opposed to the proposed approval of new additives to product categories 14.1.2.1 through to 14.1.3.4 as considered by the EWG.

The detailed comments are enclosed in the annex - Appendix 1. IFU comments to the EWG for CCFA50 second circular.

The IFU also strongly opposes the approval of colours (Azorubine, Caramel II, Tartrazine and Zeaxanthin) in the vegetable juices, nectars and their concentrates, additionally listed in the CCFA50 - INFORMATION DOCUMENT TO THE DISCUSSION ON THE GSFA, Table II.

Appendix 1. IFU comments to the EWG for CCFA50 second circular.

Food Category No. 14.1.2.1 Fruit juice

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators, emulsifiers, stabilizers, and thickeners is justified on a case by case basis

Corresponding commodity standards: 247-2005: allows specific antifoaming agents, clarifying agents, filtration aids, flocculating agents, enzyme preparations and packaging gases.

Additive	**INS**	**Max Level (mg/kg)**	**Notes**	**Step / Adopted**	**IFU Comments**
CALCIUM LACTATE	327	1200	336	2	IFU opposes adoption. This additive would be only needed with the addition of gellan gum. The IFU is opposed to the use of gellan gum therefore we see no technological need for the use of calcium lactate. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).
GELLAN GUM	418	200	336	2	IFU is opposed to the approval of this stabiliser. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). There is NO technological need for this category .
TRISODIUM CITRATE	331(iii)	500	336	2	IFU is opposed to the approval of this thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener.
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	2000			IFU is opposed to the approval of this stabeliser/thickener.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
					Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.2.2 Vegetable juice

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators is justified in this FC on a general basis, emulsifiers, stabilizers, and thickeners are not justified in this FC on a general basis

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener.
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii),(ix); 451(i),(ii); 452(i)-(v); 542	1000	33	7	IFU opposes the proposal. If phosphate is to enhance the use of benzoates then they are not approved for the use in vegetable juice. We therefore oppose the approval of phosphate addition. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need. Moreover, we do not think approval at step 7 is correct. Furthermore, an addition of phosphates would adulterate the corresponding AIJN Code of Practice reference figure significantly, thus interfering authenticity analysis results.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
TARTRATES	334, 335(ii), 337	4000	45	7	IFU opposes the use of tartrate in vegetable juice. They are only approved in fruit juices as an acidity regulator for grape juices only. See notes 128 and 129. Tartaric acid is not predominantly found in these products and there is no technological need. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). Moreover, we do not think approval at step 7 is correct.
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	2000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.2.3 Concentrates for fruit juice

Horizontal approach: (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): acidity regulators, emulsifiers, stabilizers, and thickeners: case by case basis

Corresponding commodity standards: 247-2005: allows specific antifoaming agents, clarifying agents, filtration aids, flocculating agents, enzyme preparations and packaging gases.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener, please see further detail in the attachment.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	2000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.2.4 Concentrates for vegetable juice

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): The use of acidity regulators is justified in this FC on a general basis. Emulsifiers, stabilizers, and thickeners are not justified in this FC on a general basis

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener, please see further detail in the attachment.
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii),(ix); 451(i),(ii); 452(i)-(v); 542	1000	33 & 127	7	IFU opposes this proposal. If the use of phosphate is to enhance the use of benzoates then they are not approved for the use in concentrates for vegetable juice. We therefore oppose the approval of phosphate addition. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). Next,we do not think approval at step 7 is correct. Further more an addition of phosphates would adulterate the corresponding AIJN Code of Practice reference figure significantly, thus interfering authenticity analysis results.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
SODIUM CARBOXYMETHYL CELLULOSE (CELLULOSE GUM)	466	2000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.
TARTRATES	334, 335(ii), 337	4000	45	7	IFU oppose the proposal to permit tartrate addition. We do not understand the recommendation to approve the use of tartrates. They are only approved in fruit juices as an acidity regulator for grape juices only. See notes 128 and 129. Tartaric acid is not predominant in vegetable juices therefore we do not see the technological need to adopt the use of tartrates. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.3.1 Fruit nectar

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II:: AR and ES&T: case by case basis

Corresponding commodity standards: 247-2005: allows specific antifoaming agents, clarifying agents, filtration aids, flocculating agents, enzyme preparations and packaging gases.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.3.2 Vegetable nectar

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): AR: justified in this FC on a general basis; ES&T: case by case basis

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener,
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii), (ix); 451(i),(ii); 452(i)-(v); 542	1000	33	7	IFU is opposed to the use of phosphates. If the proposal is to enhance the use of benzoates then they are not approved for the use in vegetable nectar. We therefore oppose the approval of phosphate addition. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). Next, we do not think approval at step 7 is correct. Furthermore an addition of phosphates would adulterate the corresponding AIJN Code of Practice reference figure significantly, thus interfering authenticity analysis results.
TARTRATES	334, 335(ii), 337	1600	45	7	IFU is opposed to the proposal. Tartrates are only approved in fruit juices as an acidity regulator for grape juices only. See notes 128 and 129. Tartaric acid is not predominant in vegetable juices therefore we do not see the technological need to adopt the use of tartrates. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). Next, we do not think approval at step 7 is correct.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.3.3 Concentrates for fruit nectar

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): AR and ES&T: case by case basis

Corresponding commodity standards: 247-2005: allows specific antifoaming agents, clarifying agents, filtration aids, flocculating agents, enzyme preparations and packaging gases.

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener.
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity requirements set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.

Food Category No. 14.1.3.4 Concentrates for vegetable nectar

Horizontal approach (FA/45 CRD2 Appendix IV, FA/46 CRD 2 Appendix II): AR: justified in this FC on a general basis; ES&T: case by case basis

Corresponding commodity standards: None

Additive	INS	Max Level (mg/kg)	Notes	Step / Adopted	IFU Comments
PECTINS	440	3000			IFU supports the use of this stabeliser/thickener,
PHOSPHATES	338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii), (ix); 451(i),(ii); 452(i)-(v); 542	1000	33 & 127	7	IFU opposes the proposal to use phosphate. If the use of phosphate is for the intention to support the functionality then they are not approved for the use in concentrates for vegetable nectars. We therefore oppose the approval of phosphate addition. .
TARTRATES	334, 335(ii), 337	1600	45	7	IFU opposes the proposal. Tartrates are only approved in fruit juices as an acidity regulator for grape juices only. See notes 128 and 129. Tartaric acid is not predominant in vegetable juices therefore we do not see the technological need to adopt the use of tartrates. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).
XANTHAN GUM	415	3000			IFU is opposed to the approval of this stabeliser/thickener. Approval of this additive contradicts the quality and authenticity principles set in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005). We do not see a technological need.