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Agenda Item 8(a)

CX/FA 08/40/11 Add.1 Rev.

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

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DRAFT REVISION OF THE CODEX CLASS NAMES AND INTERNATIONAL NUMBERING SYSTEM - CAC/GL 36-1989 (N07-2005)

COMMENTS AT STEP 6

The following comments have been received from the following Codex members and observers:

Brazil, Dominican Republic, New Zealand and United States of America and

Brazil:

1. Brazil would like to recommend a review of all functional classes recognized for each food additive in this document and those ones included in the GSFA, comparing them with JECFA evaluations.

There are some inconsistencies, for example, tartrates are listed in the GSFA with several functions: *Acidity Regulator, Adjuvant, Anticaking Agent, Antioxidant, Bulking Agent, Emulsifier, Flour Treatment Agent, Humectant, Preservative, Raising Agent, Sequestrant, Stabilizer, Thickener*.

Nevertheless, the following functions were evaluated by JECFA for tartaric acid: *Antioxidant Synergist, Acid, Emulsifier, Sequestrant, Flavouring Agent*; and for sodium tartrate: *Sequestrant, Stabilizer (in Meat Products and Sausage Casings)*. Thus, in the GSFA it was endorsed more functional classes for these additives than those ones evaluated by JECFA, based on the technological justification provided by manufacturers.

Other examples:

- Saccharin

In JECFA and INS list, saccharin has only the functional class of *Sweetener*, although in the GSFA it was also included the function of *Flavour Enhancer*.

- Xylitol

For xylitol, the following functions were included in the GSFA: *Bulking Agent, Emulsifier, Humectant, Stabilizer, Sweetener, Thickener*. This additive was evaluated as *Sweetener* and *Humectant* by JECFA. In the INS document, xylitol is listed with the functions: *Sweetener, Humectant, Emulsifier, Stabilizer, Thickener*.

- Leucine

This substance is defined as *Flavouring Agent* in JECFA evaluation and, therefore, it should not be maintained in this document as *Carrier* and *Stabilizer*.

2. In addition, due to the amendments proposed in the CX/FA 08/40/11, some additives don't have a functional class. For example, INS 640 and 641, because their previous functions were deleted. Therefore, there should be included functional classes for them, or the additives have to be deleted from this document.
3. With regard to functional class number 12, the term "melding" salt should be excluded or replaced by "melting" salt. Melting salts have sometimes been referred to as emulsifying salts used in cheese making. Referring to these as emulsifying salts is confusing because melting salts are not true emulsifiers in the sense of aiding the formation of an emulsion (fat/water mixture).

Dominican Republic:

The Dominican Republic welcomes the opportunity to submit these comments on the **DRAFT REVISION OF THE CODEX CLASS NAMES AND INTERNATIONAL NUMBERING SYSTEM - CAC/GL 36-1989 (N07-2005)** in order to confirm the document:

A) We suggest making the following changes in section 3:

- **Colloidal stabilizers, we suggest adding the word «agents», so that it reads «colloidal stabilizing agents».**
- **«Empolvadores», we suggest changing this Spanish word to «agentes para espolvorear».**

This is because in Spanish the word «Empolvador» does not exist and the intention is to indicate dusting (from the verb to dust which means to sprinkle something crumbled onto something else).

B) We agree to the other indicated changes in section 3.

- *Bleaching agent has been changed to flour bleaching agent*
- *Coating has been changed to coating agent*
- *Packing gas has been changed to packaging gas*
- *Texturizer has been changed to texturizing agent*
- *Water retention agent has been changed to moisture retention agent*

C) We agree to the deletion of technological purposes in section 3 since they no longer appear in section 2.

- Clarifying agent (INS no. 1201)
- Flavour modifier (INS nos. 640, 641)
- Freezant (INS nos. 941)
- Liquid freezant (INS no. 940)
- Release agent (INS nos. 901, 905a, 905b, 905c, 905d, 905e, 905f, 905g, 1503)
- Tenderizer (INS nos. 1001, 1001i, 1001ii, 1001iii, 1001iv)

D) In section 2, we suggest replacing under Functional Class 9 the Spanish word «Color» by the Spanish word «Colorante».

This is because «Color» is a characteristic; it is neither a Functional Class nor a Technological Purpose, while the word «Colorante» serves both the Functional Class purpose and the Technological Purpose.

New Zealand:

New Zealand has the following specific suggestions aimed at ensuring consistency within the document:

Section 3

- 163 (i) Anthocyanins should have a specific description to differentiate it from 163 Anthocyanins.
 354 Calcium, D,L- needs brackets and deletion of a comma ie it should read: *354 Calcium, (DL-)*.

364 *Sodium succinates* *Acidity regulator, Flavour enhancer* should be inserted above 364 (i) *Monosodium succinate*

639 Alanine , DL- needs brackets and deletion of comma ie it should read: 639 *Alanine, (DL-)*.

640 Glycine and 641 Leucine, L- do not list a technological purpose. If a food additive technological purpose is not identified, then the entry should be deleted. Also note missing brackets ie 641 *Leucine, (L-)*.

1503 Castor oil should be deleted as it is used as a processing aid ie release agent, unless a food additive technological purpose is identified.

United States of America:

Section 1

Overall, the United States supports the revised introductory text in CX/FA 08/40/11. We support the concept of removing language pertaining to labeling as it relates to the food additive functional classes and the new food additive technical purposes. However, we have concerns that removing all reference to labeling, as it relates to the name of the food additive, does not further the purposes of Codex to ensure consumer health and to promote fair trade practices. Since its adoption, the INS has provided standardized food additive nomenclature. Therefore, we recommend that the first sentence in paragraph one should be revised to read:

The International Numbering System for Food Additives (INS) is intended as a harmonized naming system for food additives with a numerical system for identifying food additives in ingredient lists as an alternative to the declaration of the specific name, which may be lengthy.

We also believe, that some language should be added in order to explain the purpose of alphabetical subscripts associated with INS numbers. As currently drafted, the document explains the purpose of the Roman numeral subscripts, but does not fully explain the purpose of the alphabetical subscripts. We also believe that the term “subscript” is confusing, and could be replaced by the term “suffix.” Therefore, we propose the following revision (**bold text**) to paragraph 3:

The INS in numerical order (Section 3) is set out in three columns giving the identification number, the name of the food additive and the technological purposes. The identification number usually consists of three or four digits such as 100 for Curcumins and 1001 for Choline salts and esters. However in some instances the number is followed by an alphabetical **suffix**, for example, 150a identifies Caramel I-plain, 150b identifies Caramel II-caustic sulphite process, and so on. **The alphabetical designations are included in order to further characterize the different classes of an additive (e.g., caramel produced by different processes).**

Section 3

1. With the removal of the technological purposes “flavour modifier” and “release agent” from Section 2, the following additives no longer have technological purposes listed in Section 3: Glycine (INS 640), Leucine, L- (INS 641), and Castor Oil (INS 1503). We suggest the following:

- a. Glycine (INS 640) and Leucine, L- (INS 641): There currently are no JECFA specification monographs for glycine or leucine. The JECFA toxicological monograph for leucine, L- and glycine list both substances as having the functional effect of “flavouring agent.” “Flavouring agent” is not listed in Section 2 of the INS list as a functional class or a technological purpose. The fifth edition of the Food Chemicals Codex (FCC V) lists both glycine and leucine, L- as nutrients. As stated in Section 1, the INS is not intended to include nutritive additives. If no other functional effect recognized in Section 2 of the INS can be identified, we suggest that glycine and leucine be removed from the INS list.
- b. Castor oil (INS 503): In addition to “release agent,” the JECFA specification monograph for castor oil also lists “carrier solvent” as a functional effect for castor oil. As “carrier solvent” is included as a technological purpose in Section 2 of the INS under the functional class “Carrier,” we suggest that the technological purpose “carrier solvent” be added to the listing for castor oil in Section 3 of the INS.

2. The majority of the phosphates have the technological purpose “moisture-retention agent” assigned to them. In some cases, this is not appropriate. We note two examples below.

- a. Tricalcium orthophosphate (INS 341(iii)): The JECFA specifications monograph for INS 341(iii) lists “anticaking agent” and “buffer” as functional effects. FCC V lists “anticaking agent,” “buffer,” “nutrient,” and “clouding agent” as functional effects. JECFA states that the additive is “practically insoluble in water” and FCC V states it is “almost insoluble in water.” Consequently, it appears that the functional effect of “moisture-retention agent” has been incorrectly assigned to this substance, and should be removed from the list of functional effects for INS 341(iii).
- b. Dicalcium diphosphate (INS 450(vi)): The JECFA specifications monograph for INS 450(vi) lists “buffering agent,” “neutralizing agent,” and “yeast food” as functional effects. FCC V lists “buffer,” “neutralizing agent,” and “nutrient” as functional effects. Both JECFA and FCC V state that the additive is insoluble in water. Consequently, it appears that the functional effect of “moisture-retention agent” has been incorrectly assigned to this substance, and should be removed from the list of functional effects for INS 450(vi)
3. We have identified forty-seven additives that have additional functional effects listed in their corresponding JECFA specification monograph that are not currently included in Section 3 of the INS. The identified JECFA functional effects are contained in Section 2 of the INS “Table of Functional Classes, Definitions and Technological Purposes.” In order to fully harmonize the INS and JECFA functional effects, we suggest that these additional additive functional effects be added to the list of technological purposes for the corresponding additives in Section 3 of the INS. The Annex to this comment includes a table that lists the forty-seven additives and the suggested additional technological purpose(s).

Annex

List of additives with additional JECFA functional effects that are also included in Section 2 of the INS

INS No.	Name of Food Additive	Additional Technical Purposes to be added due to Functional Effect(s) Listed in JECFA specification monograph
260	Acetic acid, glacial	acid
290	Carbon dioxide	propellant, preservative
325	Sodium lactate	bodying agent
334	Tartaric acid (L (+))	acid
338	Orthophosphoric acid	sequestrant
341(i)	Monocalcium orthophosphate	sequestrant
341(iii)	Tricalcium Orthophosphate	buffer
400	Alginic acid	gelling agent, emulsifier
401	Sodium alginate	emulsifier
402	Potassium alginate	gelling agent, emulsifier
403	Ammonium alginate	gelling agent, emulsifier
406	Agar	emulsifier
407	Carrageenan and its Na, K, NH ₄ salts (includes furcellaran)	emulsifier
407a	Processed Euchema seaweed (PES)	gelling agent, emulsifier
410	Carob bean gum	emulsifier
412	Guar gum	emulsifier
414	Gum arabic (acacia gum)	emulsifier
415	Xanthan gum	emulsifier, foaming agent
416	Karaya gum	emulsifier
420	Sorbitol and sorbitol syrup	sequestrant, stabilizer, bulking agent
421	Mannitol	humectant, stabilizer, bulking agent
424	Curdlan	firming agent, gelling agent
425	Konjac flour	gelling agent, emulsifier, stabilizer
450(vi)	Dicalcium Diphosphate	Buffering agent
472c	Citric and fatty acid esters of glycerol	dough conditioner, antioxidant synergist
493	Sorbitan monolaurate	stabilizer

494	Sorbitan monooleate	stabilizer
504(ii)	Magnesium hydrogen carbonate	alkali, carrier, drying agent
507	Hydrochloric acid	acid
511	Magnesium chloride	colour retention agent
529	Calcium oxide	alkali, dough conditioner
539	Sodium thiosulphate	antibrowning agent
541(i)	Sodium aluminium phosphate-acidic	raising agent
553(iii)	Talc	coating agent, surface-finishing agent, texturizing agent
575	Glucono delta-lactone	acidifier, sequestrant
577	Potassium gluconate	acidity regulator
578	Calcium gluconate	sequestrant
903	Carnauba wax	bulking agent, acidity regulator, carrier
905b	Petrolatum (petroleum jelly)	antifoaming agent
925	Chlorine	bleaching agent
941	Nitrogen	propellant
942	Nitrous oxide	antioxidant, foaming agent, packaging gas
965	Maltitol and maltitol Syrup	humectant, bulking agent
999	Quillaia extracts	emulsifier
1503	Castor oil	carrier solvent
1505	Triethyl citrate	carrier solvent, sequestrant
1520	Propylene glycol	glazing agent