CODEX ALIMENTARIUS COMMISSION E

Food and Agriculture Organization of the United Nations

World Health Organization

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

Agenda Item 7 **CX/FA 12/44/14**

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-fourth Session

Hangzhou, China, 12-16 March 2012

PROPOSALS FOR CHANGES AND/OR ADDITION TO THE INTERNATIONAL NUMBERING SYSTEM FOR FOOD ADDITIVES

Governments and international organizations in Observer status with the Codex Alimentarius Commission wishing to submit comments at Step 3 on the following subject matter are invited to do so **no later than 31 January 2012** as follows: Secretariat, Codex Committee on Food Additives, National Institute of Nutrition and Food Safety, China CDC, 7 Panjiayuan Nanli, Chaoyang District, Beijing 100021, China (Telefax: + 86 10 67711813, E-mail: secretariat@ccfa.cc ***preferably***), with a copy to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Viale delle Terme di Caracalla, 00153 Rome, Italy (Telefax: +39 06 5705 4593; E-mail: Codex@fao.org - ***preferably***).

BACKGROUND

1. The 43rd Session of the Codex Commitete on Food Additives (CCFA) agreed to establish an electronic working group (eWG), open to all members and observers, hosted by Iran. The eWG worked in English only with the following terms of reference:

- To consider the replies to the CL 2011/7-FA requesting proposals for changes/additions to the INS list and prepare a proposal for circulation for comment at Step 3;
- To discuss the proposed changes to technological purposes that due to time constraints could not be considered by the in-session working group meeting during the 43rd Session of the Committee. [1]

2. The Circular Letter requesting comments to the INS (CL 2011/7-FA) was published in April 2011 and the deadline for comments was set at 15 September 2011.

THE ELECTRONIC WORKING GROUP

3. On 3 May 2011, the Codex Secretariat distributed an invitation to Codex members and observers to express interest in participation in the eWG by 15 June 2011. This invitation contained the terms of reference of the eWG, a general outline of the work of the eWG, and the expected outcome of the work, namely a proposal for changes to the INS list.

4. Fourteen Codex members and eleven observers expressed interest in participation in the eWG: Argentina, Brazil, Denmark, Egypt, European Union, Ghana, Iran, Japan, Malaysia, Mexico, Morocco, New Zealand, Norway, United States of America, Zambia, CEFIC, CIAA, IADSA, ISDI, IACM, ICGA, ICGMA, IDF, IFAC, Marinalg and NATCOL. The FAO JECFA Secretariat also participated. All the observers are recognized as Codex International Non-Governmental Organizations.

5. An outline of the work of the eWG was distributed to the eWG on 18 June 2011. The outline received general support from the members of the eWG. The deadline for submitting information and comments was the same as that of to the CL, 15 September 2011.

6. On 30 September 2011 a compilation of the proposals received was sent to the eWG members for comments by 31 October 2011. All proposals received were appended to the compilation.

[1] RE11/FA, para 146

7. The proposal for changes and/or additions to the INS list is presented in Appendix I and are based on the replies to CL 2011/7-FA and comments received from the following members of the eWG : Japan, United States of America, Iran, ICGMA, IDA, NATCOL, New Zealand and Marinalg.

ADDITIONAL POINTS WHICH FALL OUTSIDE THE FOCUS OF THIS EWG.

8. The eWG noted that the terms of reference of the eWG includes *considering the replies to the CL requesting proposals for changes / additions to the INS list and prepare a proposal for circulation for comment at Step 3*. On the other hand, GL-36 states in Section 1 that the [technological] purposes listed therein are indicative rather than exhaustive. The eWG also noted that Annex 1 to Circular Letter CL 2011/7-FA repeats this point and goes on to state that proposals for the inclusion of new technological purposes should be accompanied by a suitable reference and lists examples of four such references. However other than the four references, there are no criteria established to indicate where additional inclusions would be required or justified, taking into account that the technological purposes listed are just indicative in any event. This tends to a situation where all such new requested proposals for new technological purposes being listed in Sections 3 and 4 of GL-36.

9. At this time there are 27 functional classes and 86 technological purposes listed in the table in Section 2 of GL-36 and with more and more technological purposes being added and the lists in Sections 3 and 4 thus becoming longer and longer; this would appear to go against the intent that these lists are indicative only and not exhaustive.

10. As the technological purposes are grouped under functional class titles which are intended to be meaningful to consumers in the Section 2 table, followed by simple definitions of these functions, it might be a more appropriate approach to list the relevant functional classes, rather than a non-exhaustive list of technological purposes in Sections 3 and 4 of GL-36. It is recognized of course that each of the functional class names listed in column one in the Section 2 table is also a technological purpose indicated for that functional class in column three – in some cases there is only this technological purpose listed (in 8 of the functional classes), but the technological purposes can also include from an additional one up to seven others in the remaining 19 functional classes. It is not clear if the additional technological purposes, listed in column three of the table, are distinctly different from one another or synonyms or a mixture of both. Prior to the 2008 Revision of GL-36 the relevant column of the table referred to them as Sub-classes (technological functions).

11. Proposals or requests for new technological purposes could then be added to the third column of the table in Section 2 and, if deemed necessary, the relevant functional class could be added to the lists in Sections 3 and 4.

12. Furthermore Table 1 of the GSFA lists functional classes of the individual additives and listing functional classes, rather than technological purposes in Sections 3 and 4 of GL-36 would facilitate cross-referencing between these two standards.

13. The eWG wished to point out that many of the 34 milk product standards now have tables of the food additive functional classes whose use is technologically justified in the relevant commodity products and thus the inclusion of functional classes in Sections 3 and 4 of GL-36 would facilitate cross-referencing.

14. The eWG also believed there was increasing confusion between functional classes and technological purposes of food additives between the various Codex standards and we note that JECFA specifications refer to functional uses of food additives, which just adds to the confusion.

15. The eWG recognised that the suggestions above may be outside the Terms of Reference of this eWG; however, we are aware that the physical meeting of in-session WG on the INS at CCFA 2011 (contained in CRD-4 of CCFA 2011) took note of a proposal that a future session of the CCFA undertakes a general review of the entire Section 3 of the INS in order to harmonize the functional classes and technological purposes of INS entries as the section was seen as containing a number of contradictions.

REQUEST FOR COMMENTS

16. Members and Observers organizations are invited to provide comments at Step 3 as directed above on the proposed draft changes and /or addition to the INS as present in Tables 1-4 of the Appendix.

Appendix 1

PROPOSED CHANGES AND/OR ADDITIONS TO THE INS

(At Step 3)

The INS list in numerical order is proposed to be updated for some food additives as listed in the Tables below.

Comments:

- the proposed changes by the members of the eWG, the changes are highlighted;
- an attempt has been made to include all proposed changes, especially as regards the Technological Purposes in order to list all the Technological Purposes for which the additive is used according to comments received;
- comments on all proposals are invited;
- comments are listed in table 1 to 4;
- it was proposed by some members to create two tables one for new additives (table 1) and another table for modification of an existing INS name or INS number purpose (table 2);
- some useful additional points were added in appendix 1 which we think it will be outside the Terms of Reference of this eWG;
- some comments from one observer will be satisfied once the header 3 in table 3 and 4 name to be changed from functional class to **technological purpose** as were supported by many members of this eWG;
- it has been commented that section 2 of CAC/GL 36-1989 must be amended to include additional technological purposes**.** Addition of the following technological purposes in section 2 of the INS CAC/GL 36-1989 was recommended, but the approval of that has to be decided by CCFA members and related Codex commodities;
    - "neutralizing agent," as suggested for Aluminium ammonium sulfate (INS 523),
    - "conditioning agent," as suggested for Silicon, dioxide, amorphous (INS 551),
    - "antimicrobial agent," as suggested for Chlorine (INS 925), and
    - "flavouring adjuvant", as suggested for Polyethylene glycol (INS 1521)

Table 1: New additives

INS No.	Name of Food Additive in INS	Name of Food Additive in JECFA	Technological Purpose
452(vii)	Sodium Potassium Hexametaphosphate		acidity regulator, emulsifier, moisture-retention agent, raising agent, sequestrant, stabilizer, texturizing agent.
160 c-change to 160 c(ii)	Paprika extract. Name does not match with name of food additive in JECFA. It must be corrected to match JECFA name. This addition therefore it is not accepted by majority members.	Paprika extract (Tentative)	Colour

Footnote for table 1: Additives are to be considered for addition to the INS

Table 2: modification of an existing INS name or INS number purpose

INS No.	Name of Food Additive in INS	Name of Food Additive in JECFA	Technological Purpose
124	Ponceau 4R (Cochineal red A) Name does not match with name of food additive in JECFA. It must be corrected to match JECFA name.	Ponceau 4R	Colour
180	Lithol Rupine BK Name does not match with name of food additive in JECFA. It must be corrected to match JECFA name.	Lithol Rubine BK	Colour
173	Aluminum Name does not match with name of food additive in JECFA. It must be corrected to match JECFA name.	Aluminum powder	Colour (for surface only)
452(vi) change to 451(iii)	Sodium potassium tripolyphosphate change to Sodium triphosphate Proposal was disagreed for rationale that the two are two different food additives		acidity regulator emulsifier moisture-retention agent raising agent sequestrant stabilizer

Table 3: Proposal for additional technological purposes (Request for new technological purposes for 18 additives in order for the INS to be in line with the FCC)

INS #	Food Additive	INS * Technological Purpose (CAC/GL 36-1989, Version 8-2010)	Additional Technological Purpose (Reference FCC, 7th ed.)
170(i)	Calcium carbonate	Surface colourant, Anticaking agent, Stabilizer, Acidity regulator ***Surface colourant is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of a Colour. However with name change to technological purpose this should satisfy this comment.***	Dough conditioner (flour treatment agent); firming agent; one observer disagree to add this technological purpose for fermented milks because the technological purpose of stabilizer and thickener are suffficient.
220	Sulfur dioxide	Preservative, Antioxidant	Bleaching agent- Flour treatment *Additional function is included...(Flour Treatment Agent in flours for biscuit and pastry manufacture only (CXS 152-1985 - Wheat Flour), in noodles (CXS 249-2006 - INSTANT NOODLES).*
221	Sodium sulfite	Preservative, Antioxidant	Bleaching agent- Flour treatment *Additional is included...((As flour treatment agent in bread improvers and Instant Noodles (CXS 249-2006)*

INS #	Food Additive	INS * Technological Purpose (CAC/GL 36-1989, Version 8-2010)	Additional Technological Purpose (Reference FCC, 7th ed.)
224	Potassium metabisulfite	Preservative, Antioxidant	Bleaching agent- - Flour treatment *Additional function is included... (As flour treatment agent in bread improvers and Instant Noodles) (CXS 249-2006)*
334	L(+)- Tartaric Acid	Acidity regulator; Antioxidant; Sequestrant	Flavour Synergist
386	Disodium ethylenediaminetetraacetate	Antioxidant; Preservative; Sequestrant	Stabilizer
481(i)	Sodium stearoyl lactylate	Emulsifier; Stabilizer	Dough conditioner (flour treatment agent); whipping agent (foaming agent)
482(i)	Calcium stearoyl lactylate	Emulsifier	Dough conditioner (flour treatment agent); stabilizer; whipping agent (foaming agent)
484	Stearyl citrate	Emulsifier, Sequestrant	Antioxidant
523	Aluminium ammonium sulfate	Stabilizer, Firming agent	Acidity Regulator (i.e., Buffer, neutralizing agent-subject to approval of CCFA members and related Codex commodities to be added to section 2 of the INS CAC/GL 36-1989)
551	Silicon dioxide, amorphous	Anticaking agent	Defoaming agent; carrier; conditioning agent: subject to approva of CCFA members and related Codex commodities to be added to section 2 of the INS CAC/GL 36-1989 ;
570	Ferrous gluconate	Colour retention agent ***Colour retention agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of a Colour. However with name change to technological purpose this should satisfy this comment.***	Colour stabilizer is one of several technological purposes under the functional of class"colour retention" However since the header is changed to technological purpose the colour stabilizer should be fine.
903	Carnauba wax	Glazing agent, Bulking agent, Acidity regulator, Carrier	Anticaking agent
905d	Mineral oil, high viscosity	Glazing agent, Sealing agent ***Sealing agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed***	Defoaming agent; (FCC Liquid Petrolatum, Liquid Paraffin)

INS #	Food Additive	INS * Technological Purpose (CAC/GL 36-1989, Version 8-2010)	Additional Technological Purpose (Reference FCC, 7th ed.)
		technological purposes of a Glazing agent. However with name change to technological purpose this should satisfy this comment.	
925	Chlorine	Flour bleaching agent **Flour bleaching agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of a Flour treatment agent.** ***However with name change to technological purpose this should satisfy this comment.***	Antimicrobial agent subject to approval of CCFA members and related Codex commodities to be added to section 2 of the INS CAC/GL 36-1989 ; bleaching agent;
928	Benzoyl peroxide	Flour treatment agent, Preservative	Bleaching agent
1201	Polyvinylpyrrolidone	Bodying agent, Stabilizer, Dispersing agent Bodying agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of a Thickener ***Comment from IDF: Dispersing agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather a Dispersing agent is one of the listed technological purposes of an Emulsifier*** ***However with name change to technological purpose this should satisfy this comment.***	Coating on fresh fruit (Glazing Agent) (note: the correct term is coating agent)
1521	Polyethylene glycol	Antifoaming agent, glazing agent, emulsifier, carrier, plasticizer ***Comment from IDF: Plasticizer is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of an Emulsifier.*** ***However with name change to technological purpose this should satisfy this comment***	Binder (thickener), flavoring adjuvant: subject to approval of CCFA members and related Codex commodities to be added to section 2 of the INS CAC/GL 36-1989

Footnote for table 3: It was proposed to change functional class in header in column 3 and 4 to technological purpose.

Table 4: Proposal for additional technological purposes (Request for new technological purposes for 9 additives in order for the INS to be in line with "Functional Uses" in JECFA specifications)

INS #	Food Additive	INS Technological Purpose (CAC/GL 36-1989, Version 8-2010)	ADDITIONAL Technological Purpose (Reference: JECFA Monograph)
482(i)	Calcium stearoyl lactylate	Emulsifier	Stabilizer
501(ii)	Potassium hydrogen carbonate	Acidity regulator, Stabilizer	Raising agent (Raising Agent)
523	Aluminium ammonium sulfate	Stabilizer, Firming agent	Buffer, colour fixative (colour retention agent) raising agent (not in JECFA but based the rational proposed by Japan)
579	Ferrous gluconate	Colour retention agent ***Comment from IDF: Colour retention agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of a Colour. However with name change to technological purpose this should satisfy this comment***	Colour stabilizer Colour stabilizer is one of several technological purposes under the functional of class"colour retention" " However since the header is changed to technological purpose the colour stabilizer should be fine.
901	Beeswax	Glazing agent, Clouding agent ***Clouding agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of an Emulsifier. However with name change to technological purpose this should satisfy this comment***	Stabilizer, texturing agent, thickener, carrier
902	Candelilla wax	Glazing agent, Clouding agent ***Clouding agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of an Emulsifier. However with name change to technological purpose this should satisfy this comment***	Texturing agent, surface-finishing agent (glazing agent), carrier
905c(i)	Microcrystalline wax	Glazing agent	Defoaming agent
928	Benzoyl peroxide	Flour treatment agent, Preservative	Bleaching agent

INS #	Food Additive	INS Technological Purpose (CAC/GL 36-1989, Version 8-2010)	ADDITIONAL Technological Purpose (Reference: JECFA Monograph)
1204	Pullulan	Glazing agent" and "Film-forming agent ***Comment from IDF: Film-forming agent is not a Functional Class as shown in Section 2 – Table of Functional Classes, Definitions and Technological Purposes – CAC/GL, 36-1989. Rather it is one of the listed technological purposes of an Glazing agent. However with name change to technological purpose this should satisfy this comment.***	Thickener

Footnote: It was proposed to change functional class in header in column 3 and 4 to technological purpose.