



## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FOOD ADDITIVES

#### Fiftieth Session

### PROPOSED DRAFT AMENDMENTS TO THE INTERNATIONAL NUMBERING SYSTEM FOR FOOD ADDITIVES (CXG 36-1989)

Prepared by an Electronic Working Group<sup>1</sup> chaired by Iran and co- chaired by Belgium

Codex members and Observers wishing to submit comments at Step 3 on the proposed changes and/or addition to the International Numbering System for Food Additives (Annex 1) should do so as instructed in CL 2018/19-FA available on the Codex webpage/Circular Letters 2018:

<http://www.fao.org/fao-who-codexalimentarius/resources/circular-letters/en/>.

Comments will only be accepted within the deadline indicated in CL 2018/19-FA.

**Format for submitting comments:** In order to facilitate the compilation of comments and prepare a more useful comments document, Members and Observers are requested to provide their comments in word file.

## BACKGROUND

1. In March 2017 the 49<sup>th</sup> Session of Codex Committee on Food Additives (CCFA49) held in Macao SAR, agreed to establish an electronic working group (EWG) open to all members and observers, chaired by Iran and co- chaired by Belgium, and working in English only, with the following term of reference<sup>2</sup>:

- (i) Consider the replies to the CL 2017/46-FA requesting proposals for changes and/or additions to the INS list; and prepare a proposal for circulation for comments at Step 3.
- (ii) Addition of sequestrant function to malic acid DL- (INS 296); and
- (iii) The issue of naming steviol glycosides and INS number.

2. In April 2017 the Codex Secretariat distributed CL 2017/46-FA; all members and observers were invited to respond by 15 September 2017 (proposals for changes, addition and deletion to the INS list)

### The Electronic Working Group

3. On 16 April 2017, the Codex Secretariat distributed a kick-off message containing an invitation to members and observers to express interest in participation in the EWG by 30 June 2017. This invitation contained: the term 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. By May 2017, 20 members and 16 observers had signed up for the EWG.

5. An outline of the work of the EWG was distributed to the EWG on 28 July 2017. The deadline for submitting information and comments was 28 August 2017.

<sup>1</sup> Members of EWG: Argentina, Belgium, Brazil, Chile, China, Colombia, Egypt, India, Iran, Japan, Malaysia, New Zealand, Norway, Paraguay, Poland, Singapore, Spain, Switzerland, The European Union, The Russian Federation, The United Kingdom, The United State of America, Association for International Promotion of Gums (AIPG), Association of Manufacturers and Formulators of Enzyme Products (AMFEP), European Chemical Industry Council (CEFIC), EU specialty food ingredients (Formerly ELC), International Association of Color Manufacturers (IACM), International Council of Beverage Association (ICBA), International Chewing Gum Association (ICGA), International Council of Beverages Association, International Council of Grocery Manufacturers Association (ICGMA), International Stevia Council (ISC), International Organization of the Flavor Industry (IOFI), Natural Food Colors Association (NATCOL), The Calorie Control Council (CCC), The Food Industry Asia (FIA), The International Alliance of Dietary/Food Supplement Associations (IADSA), The International Food Additives Council (IFAC)

<sup>2</sup> REP 17/FA, para 117

6. By 29 September 2017, comments from 20 members of the EWG were received. Based on the comments received, Iran and Belgium prepared the final draft.

### Summary comments of EWG and recommendations

7. An attempt has been made to include all proposed changes, especially as regards the technological purposes in order to list all technological purposes for which the additive is used according to comments received. The justifications are highlighted in the following paragraphs.

8. It is important to note that any change to INS numbers, food additive names and their encompassing scopes may have impact in the GSFA. It was brought to attention of the Chair of INS by a member that any change would result in a consequential change to the Tables 1 and 2 on the adopted GSFA provision, as well as to its general listing in Table 3 of the GSFA.

#### The request on addition of sequestrant function to malic acid DL- (INS 296)

9. CCFA49 noted the request of CCPFV28 to add “sequestrant” to the functional classes of malic acid DL (INS 296).

10. In CXG 36-1989, there is no sequestrant function for INS 296. The sequestrant function is listed for other acids containing an hydroxyl, such as ascorbic acid, citric acid, and tartaric acid. This additive belongs to the hydroxycarboxylic acids group. This group of additives has a “sequestrant” power respect to several metals therefore malic acid can be used as a chelating agent. Rather it is a weak chelating agent.

11. The EWG agreed with addition of sequestrant function to malic acid DL- (INS 296).

#### The issue of naming steviol glycosides and INS number

12. In CX/FA 17/49/4 rev1, the following issues about steviol glycosides are mentioned related to the 82<sup>nd</sup> JECFA meeting: (i) the specification of one new food additives was developed (rebaudioside A from multiple gene donors expressed in *Yarrowia lipolytica*); and (ii) the name of the food additive steviol glycoside was changed (new title: steviol glycosides from *Stevia Rebaudiana* Bertoni).

13. As outlined in CX/FA 17/49/3 and paragraph 25 of REP 17/FA, JECFA included rebaudioside A from multiple gene donors expressed in *Yarrowia lipolytica* in the ADI of steviol glycosides. In view of the different production process, CCFA considered that the EWG on INS should consider whether an additional INS should be assigned and prepare proposals.

14. The INS uses a hierarchical set of numbers, alphabetical suffixes (i.e., (a), (b), etc.), and numerical subscripts (i.e. (i), (ii), etc.) to identify food additives. Alphabetical suffixes are used to further characterize the different classes of an additive (e.g. produced by different processes).

15. Hence, for each specification, a separate INS number exists. The name of the food additive is in general the one mentioned in the specifications. In several cases, parent names are included in the INS standard. They are indicated in bold. No functional class or technological purpose is assigned to these (see the CCFA report of 2011). No specification is directly linked to these parent names.

16. The majority considered that the existing INS 960 steviol glycosides should become a parent additive for all steviol glycosides which are included in the same ADI and the use levels in the GSFA should apply to all. Not all delegations are convinced of the need/benefit of having this parent additive. When the parent INS number or name is used for labelling, the consumer is not informed of the production method and might be misled, because a lot of information has been spread about steviol glycosides being extracted from the plant *Stevia rebaudiana* Bertoni.

17. The majority considered that an INS number is needed for each JECFA specification, using the name as indicated by JECFA. A new INS number and name is needed for steviol glycosides from *Stevia rebaudiana* Bertoni to ensure that there is a link between each specification and an INS number. This new name and number will make it possible to clearly communicate the source where steviol glycosides from other sources are also on the market. When consumers choose food products with steviol glycosides, they do so because steviol glycosides is a natural-origin plant-based sweetener. A proposal was made to add “steviol glycosides from *Stevia*” as a synonym because a full botanical name is difficult for the consumer.

18. There was information that rebaudioside A from multiple donors expressed in *Yarrowia lipolytica* is not the only kind of steviol glycosides produced from micro-organisms, as can be seen in the priorities list for JECFA too. As it might be premature to include other examples of steviol glycosides than those for which JECFA prepared specifications, such other examples are not included in the proposal in annex.

19. The majority considered that it is useful to create a parent additive for steviol glycosides that are produced by micro-organisms. Different names were proposed for such a parent name: steviol glycosides from fermentation, steviol glycosides from yeast and microbial steviol glycosides. As yeast is not a synonym for micro-organisms in general (yeast is the common name for *Saccharomyces cerevisiae*), this is not an option for such a parent name. Some delegations considered it unnecessary or premature to include such parent additive. Anyhow, we should try to avoid to have to change numbers and names later. To use “steviol glycosides from fermentation” as a synonym for “rebaudioside A from multiple donors expressed in *Yarrowia lipolytica*” is not acceptable as there are other steviol glycosides produced by fermentation.

20. There was information that other kinds of steviol glycosides are on the market, which are derived from steviol glycosides from *Stevia rebaudiana* Bertoni, but which are modified compared to the native molecules as extracted from the plant, i.e. enzyme modified steviol glycosides and steviol glycosides with bioconversion. As it is not fully clear what the nature of these steviol glycosides is and no request is made as a reply to the CL and no JECFA specifications exist, it is considered premature to include these in the proposal in annex. Such steviol glycosides need new INS numbers when proposals are submitted as a reply to the CL or when JECFA specifications have been set.

21. Although it is not in the scope of the EWG on INS, there was a need to know any impact on the GSFA. The understanding is that the parent name steviol glycosides could then be used as a group food additive heading in the GSFA, with individual additives that have JECFA specifications listed under the group additive heading. In this way, the GSFA use levels would apply to all steviol glycosides that are included under the JECFA group ADI. Of course, there is no real need to have a parent additive in INS to have group authorisations in GSFA, as many group authorisations in GSFA also exist without a parent additive in INS.

#### Replies to the CL 2017/46-FA

22. A proposal was made by an Observer for a new food additive named “grape colour” which was clarified to be a different product from grape skin extract INS163(ii), as the grape color anthocyanins are derived from the whole fruit (skin and flesh) without the addition of sulfur dioxide. Noting anthocyanins (INS163) is already included in the *Class Names and the International Numbering System for Food Additives* (CXG 36-1989) and due to the lack of information whether Member Countries need an INS number and name “grape colour”, this proposal was considered premature to include in the recommendation. .

23. EWG Members also made the following proposals:

(i) Inclusion of a new entry for:

- Potassium polyaspartate, used as a stabilizer. Potassium polyaspartate was inserted in the European Union list of food additives approved for use in foods in 2017. Potassium polyaspartate acts as a stabiliser against tartrate crystal precipitation in wine (red, rosé and white wine).
- Tamarind seed polysaccharide, which was evaluated by JECFA in 2017. This food additive is used as, but not limited to: emulsifier in mayonnaise to prevent separation of fat and oil; gelling agent in pudding to promote gelation of the food in combination with sugar; stabilizer in whipped cream to maintain volume and fluffiness by stabilizing foams; and thickener to increase viscosity of syrup with low sugar contents.

(ii) Addition of functional class/technological purpose to:

- Adding the functional class of “Glazing agent” and the technological purposes of “glazing agent” and “surface- finishing agent” to mono- and di- glycerides of fatty acids (INS 471).
- Adding functional classes/ technological purposes “carrier” and “carrier solvent” propylene glycol (INS 1520).
- Addition “gelling agent” function class to gellan gum (INS 418).
- Addition “stabilizer” function class to sorbitan monostearate (INS 491).

#### **Conclusion and recommendations**

24. The EWG recommends CCFA to consider the changes and/or additions to the INS list as presented in table 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 Table 1. The changes are highlighted with **bold/underlined font**.

**Table 1: New or additional functional class or technological purpose**

INS No.	Name of Food Additive	Functional class	Technological Purpose
296	Malic acid, DL-	Acidity regulator	acidity regulator
		<b><u>Sequestrant</u></b>	<b><u>sequestrant</u></b>
418	Gellan gum	<b><u>Gelling agent</u></b>	<b><u>gelling agent</u></b>
		Stabilizer	stabilizer
		Thickener	thickener
<b><u>437</u></b>	<b><u>Tamarind seed polysaccharide</u></b>	<b><u>Emulsifier</u></b>	<b><u>emulsifier</u></b>
		<b><u>Gelling agent</u></b>	<b><u>gelling agent</u></b>
		<b><u>Stabilizer</u></b>	<b><u>stabilizer</u></b>
			<b><u>foam stabilizer</u></b>
<b><u>456</u></b>	<b><u>Potassium polyaspartate</u></b>	<b><u>Stabilizer</u></b>	<b><u>stabilizer</u></b>
471	Mono- and diglycerides of fatty acids	Antifoaming agent	antifoaming agent
		Emulsifier	emulsifier
		<b><u>Glazing agent</u></b>	<b><u>glazing agent</u></b>
			<b><u>surface-finishing agent</u></b>
491	Sorbitan monostearate	Emulsifier	emulsifier
		<b><u>Stabilizer</u></b>	<b><u>stabilizer</u></b>
<b><u>960</u></b>	<b><u>Steviol glycosides</u></b>		
<b><u>960a</u></b>	<b><u>Steviol glycosides from <i>Stevia rebaudiana</i> Bertoni (Steviol glycosides from <i>Stevia</i>)</u></b>	<b><u>Sweetener</u></b>	<b><u>Sweetener</u></b>
<b><u>960b</u></b>	<b><u>Steviol glycosides from fermentation</u></b>		
<b><u>960b(i)</u></b>	<b><u>Rebaudioside A from multiple gene donors expressed in <i>Yarrowia lipolytica</i></u></b>	<b><u>Sweetener</u></b>	<b><u>Sweetener</u></b>
1520	Propylene glycol	Emulsifier	dispersing agent
		<b><u>Carrier</u></b>	<b><u>carrier</u></b>
			<b><u>carrier solvent</u></b>
		Glazing agent	glazing agent
		Humectant	humectant
		wetting agent	