

CODEX ALIMENTARIUS COMMISSION

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Food and Agriculture
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Organization

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Agenda Item 4

CX/PFV 12/26/4-Add.1

October 2012

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

26th Session
Montego Bay, Jamaica,
15 – 19 October 2012

Comments on the

PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED FRUITS (revision of remaining individual standards for canned fruits) (At Step 3)

Comments Submitted by: Brazil, Chile, Costa Rica, European Union, Ghana, India, Jamaica, Kenya,
Phillipines, United States

BRAZIL

In regard to the aforementioned draft standard, Brazil would like to congratulate CUBA efforts to revise the Codex Standards for canned mangoes, canned pears and canned pineapples and consolidate them in a single Standard for Canned Fruits, and to share some specific comments aiming harmonization for a better understanding and adoption of the Standard.

Specific Comments

Section 2.1 Product Definition (1)
Rationale <p>The adopted terminology “essential elements” may not be clear enough to precisely distinguish fruits and vegetables that undergoes processing steps from those that are fresh.</p> <p>Taking into consideration that all processes will remove part or most of the essential elements from fresh fruits and vegetables an effort to improve the adopted terminology should be made.</p>
Suggestion 2.1 Product Definition <p>Canned fruits are the products:</p> <p>(1).... None of their essential constitutional elements are removed from them.....</p>
Section 2.1 Product Definition (2)
Rationale <p>Brazil understands that the specified value of 10% is broader and encompasses all processing facilities and would like to suggest adoption of the 10% value for vacuum packaged canned fruits.</p>
Suggestion <p>(c) vacuum packaged such that the packing medium does not exceed [20%][10%] of the product's net weight...</p>

CHILE

Comment 1: We propose a new wording of section 3.2.1 (page 4) to make the text clearer.

1.2.1 Colour, Flavour and Texture.

In addition to the specific characteristics laid down in the corresponding Annexes, canned fruits shall have ~~normal~~ colour, flavour, and odour **and texture characteristic of the variety or type of fruit used as raw material and transformation processes involved in the processing**. ~~of canned fruits, corresponding to the type or variety of fruit and shall possess texture characteristic of the product.~~

Comment 2: Add a clarifying note on the use of the concept of “weight” instead of “mass”.

4. CALCULATION AND EXPRESSION OF RESULTS Subtract the weight found in 3.2 from the weight found in 3.3. The difference shall be considered to be the weight of water required to fill the container. Results are expressed as mL of water.

Add in the footnote: **The term “weigh” is used instead of “mass”, as the terms “net weight” and “drained weight” are recognized internationally.**

COSTA RICA

Costa Rica appreciates the opportunity to provide the following comments:

Regarding document CX/PFV 12/26/4, Costa Rica believes that the metrological aspects included in the proposed draft standard have taken samples sizes that are too big; therefore, application is difficult.

In view of the aforementioned, we suggest that the lower limit for the lot size should be 150 with 5-unit samples, according to the International Recommendation R 87 (Quantity of product in prepackages) by the International Organization of Legal Metrology (OIML), Edition 2004. This recommendation is based on the fact that sampling plans submitted by the proposed draft standard consider lot sizes that are too big; hence, its application is difficult in developing countries.

Similarly, the draft standard does not consider flexible containers, which puts Costa Rica at a disadvantage because there are a large number of products with flexible presentations on the market today that are left outside the scope of the document.

EUROPEAN UNION

The European Union and its Member States (EUMS) would like to congratulate Cuba for a very well prepared draft standard. The EUMS fully support the text with only one technical comment.

In Annex 1 on pears, Section 3.1, the minimum drained weight is adapted for containers with a volume of more than 425 ml but, considering the size of fruits, it is too high for containers with a volume less than 425 ml. Therefore, the EUMS suggest a new table for minimum drained weight:

	Containers ≤ 425 ml	Containers > 425 ml
a) Whole Style	46%	50%
b) Halves, Quarters, Slices, Pieces	46%	53%
c) Diced	50%	56%

GHANA**Comment: Section 2.1 Product Definition**

(c) Vacuum packaged such that the packing medium does not exceed ~~{20%}~~ **10%** of the product's net weight and when the container is sealed in such conditions as to generate an internal pressure in accordance with good manufacturing practices.

Rationale: Ghana recommends that since the minimum fill shall occupy not less than 90%, then the packing medium of the vacuum package should not exceed 10% of the product's net weight and when the container is sealed in such conditions as to generate an internal pressure in accordance with good manufacturing practices. This is necessary to avoid misleading the consumer.

Comment: Section 8.2 Name of the product

8.2.2 When the fruits are sized, the size (or sizes when sizes are mixed), as defined in the corresponding Annexes, ~~may~~ **shall** be declared as part of the name or in close proximity to the name of the product.

Rationale: Ghana considers declaring the size or sizes of the fruits as essential since it avoids confusing the consumer and ensures customer satisfaction.

INDIA

Section 2.1 PRODUCT DEFINITION

Subsection 2.1 (2) (c)

The text may be modified as under:

Vacuum packed such that the packing medium does not exceed {20%} [10%] of the product's net weight and when the container is sealed in such conditions as to generate an internal pressure in accordance with good manufacturing practices.

Rationale: Limit for packing medium may be retained 20% as also given in Codex Standard for Certain Canned Vegetables (CODEX STAN 297-2009).

Section 3.1 COMPOSITION

Subsection 3.1.3 Packing Media

The last line may be modified as under:

'The cut-out strength for any packing medium shall be determined on average, but no container may have a solid soluble content (Brix) value lower than that of the next category ~~below~~ **below**.'

Rationale: Spelling error.

Section 3.2 QUALITY CRITERIA

Subsection 3.2.1 Colour, Flavour and Texture

The text may be modified as under:

'In addition to the specific characteristics laid down in the corresponding Annexes, canned fruits shall have normal colour, flavour and odour ~~of canned fruits~~, corresponding to the type or variety of fruit and shall possess texture characteristic of the product.'

Rationale: Repetition of word and may not be really required.

Section 3.4 Lot Acceptance

The second line may be modified as under:

'A lot should be considered as meeting the applicable quality requirements referred to in Sections ~~3.1 3.1.3~~ and 3.2 when.'

Rationale: Quality requirements are given in whole section 3.1 not only under section 3.1.3 therefore correction section need to be quoted.

Section 4 Food Additives

The text may be modified as under:

'Within each ~~additive class~~ class of additives only those food additives listed below and in the corresponding Annexes, or referred to, may be used and only for the functions, and within limits, specified.'

Rationale: There could not be additive class but there can be class which may have number of additives, therefore class of additives may be more appropriate.

Section 8.2 NAME OF THE PRODUCT

Subsection 8.2.2

The text may be modified as under

'When the fruits are sized, the size (or sizes when sizes are mixed), as defined in the corresponding Annexes, ~~may~~ [shall] be declared as part of the name or in close proximity to the name of the product.

Rationale: 'Shall' be retained as mentioning the size will give informed choice to consumers.

Subsection 8.2.3

The text may be modified as under:

The name of the product shall include indication of the packing medium as set out in section 2.1 (2) (a). For canned fruits packaged in accordance with Section 2.1 (2) (c) ~~(b)~~ the words "vacuum packaged" shall be affixed to the commercial designation of the product or in close proximity.

Rationale: The correct section need to be quoted to have clarity in the meaning.

ANNEX I: PEARS**Section 2.2 QUALITY CRITERIA****Subsection 2.2.2 Uniformity of Size**

Size and shape of full fruits in plant varies from country to country and even within different farm holdings. Subjecting the requirements in uniformity of size shape has a significant disproportionate impact on industry as wastage is bound to increase and also increasing the cost of the products for the consumers. This is a national loss. Moreover the size shape and uniformity of the size are not a food safety parameter. Currently, we may write sliced/cubed/ halves/quarters/tit bits on the pack. E.g. peaches in halves, pears in quarters, pineapple in tit bits.

Section 3 WEIGHTS AND MEASURES**Subsection 3.1 MINIMUM DRAINED WEIGHT**

The drained weight should be min 50% for regular packs and 70% for solid packs. These are limits of the current fruit processing manufacturers. They are mostly small scale sector and hence changes in these values will affect them.

ANNEX II: PINEAPPLES**Section 2.2 QUALITY CRITERIA****Subsection 2.2.2 Uniformity of Size**

Size and shape of full fruits in plant varies from country to country and even within different farm holdings. Subjecting the requirements in uniformity of size shape has a significant disproportionate impact on industry as wastage is bound to increase and also increasing the cost of the products for the consumers. This is a national loss. Moreover the size shape and uniformity of the size are not a food safety parameter. Currently, we may write sliced/cubed/ halves/quarters/tit bits on the pack. E.g. peaches in halves, pears in quarters, pineapple in tit bits.

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ANNEX II: MANGOES**Section 2.2 QUALITY CRITERIA****Subsection 2.2.4 Uniformity of Size**

Size and shape of full fruits in plant varies from country to country and even within different farm holdings. Subjecting the requirements in uniformity of size shape has a significant disproportionate impact on industry as wastage is bound to increase and also increasing the cost of the products for the consumers. This is a national loss. Moreover the size shape and uniformity of the size are not a food safety parameter. Currently, we may write sliced/cubed/ halves/quarters/tit bits on the pack. E.g. peaches in halves, pears in quarters, pineapple in tit bits.

Section 3 WEIGHTS AND MEASURES**Subsection 3.1 MINIMUM DRAINED WEIGHT**

The drained weight should be min 50% for regular packs and 70% for solid packs. These are limits of the current fruit processing manufacturers. They are mostly small scale sector and hence changes in these values will affect them.

JAMAICA**GENERAL COMMENTS:**

Jamaica thanks the working group led by Cuba for its efforts to provide a comprehensive document for the Codex Committee on Processed Fruits and Vegetables.

SPECIFIC COMMENTS:**Section 2.1 Product Definition**

2 (b) Insert a comma after the phrase 'solid pack'

2 (c) "vacuum packaged such that the packing medium does not exceed [20%] [10%] of the product's net weight".

This percentage used must be in congruence with the Annexes sections 3.2 which specify requirements for the minimum drained weight.

Section 3.1.3 Packing Media

"The cut-out strength for any packing medium shall be determined on average, but no container may have a solid soluble content (Brix) value lower than that of the next category below."

This reference to the "next category below" is ambiguous as there is no explanation of the categories. Additionally, "~~solid soluble~~" should be "**soluble solids**"

The statement may be rephrased to read, "The cut-out strength for any packing medium shall be determined on average, ~~but no container may have a solid soluble content (Brix) value lower than that of the next category below~~ **The packing medium shall be designated based on the parameters outlined in Codex Guidelines for Packing Media for Canned Fruits (CAC/GL 51-2003)**

Section 9 Methods of Analysis and Sampling

The table makes provision for Fill of glass and metal containers; however, no reference is made to other types of containers and associated test methods.

Where the table makes reference to "~~Solid soluble content~~" should be "**Soluble solids content**". Additionally the title of the ISO 2173 standard was incorrectly referenced and therefore needs to be corrected to read; "Fruit and vegetable products - Determination of ~~content in soluble solids - Refractometric method~~"

Annex II: Pineapples

Section 2.2.1.3 Texture

The definition can be adjusted as follows to prevent it from sounding circular: "The canned pineapple shall have a reasonably good texture, the fruitlets shall be reasonably ~~good texture~~ **compact** in structure, and the product shall be fairly free from porosity.

Section 2.2.2.6 Cubes or Diced

The following sentence should be corrected to read:

"(b) not more than 15% of the drained weight of pineapple in the container may consist of pieces which ~~weight~~ **weigh** more than 3 g each."

Section 2.2.3 Definition of Defects

The following sentence should be corrected to read:

"a) **Blemish** - surface areas and spots which contrast strongly ~~or in~~ **in** colour or texture with the normal pineapple tissue or which may penetrate into the flesh."

Section 3.1 Minimum Drained Weight

"(a) Regular packs 58%

(b) Solid pack 78%"

The requirement of 58% for Regular packs Pineapple falls below the Jamaican regulation (*The Processed Food (Grades and Standard) Regulations*) which specifies that the minimum drained weight shall not fall below 60% of the capacity of the container.

Annex III: Mangoes

Section 1.2 Styles

Jamaica proposes that the style '**Whole**' be added to the standard. The local regulation, (*The Processed Food (Grades and Standard) Regulations*) lists 'Whole' as a style to facilitate the use of smaller size mango varieties available in Jamaica. The peel shall be removed, however the fruit is not cut and the whole stone or pit remains inside the fruit. In this instance, the stone is not considered a defect. The presence of the seed could be indicated on the label as a precautionary statement.

Section 1.2.1 Halves

The product definition already specifies that the peel shall be removed therefore this does not need to be restated. The sentence should be corrected to read, "**Halves** - cut into two approximately equal parts along the stone from stem to apex. ~~and the flesh separated from the skin.~~"

Section 2.2.6 Defects and Allowances

In consideration of the proposal to include 'Whole' as a style, the following statement would need to be amended:

"(d) **Pit (or stone) material** - considered a defect in all styles **except 'Whole'**. **In 'Whole' mangoes, the whole stone may be present inside the fruit but no loose or broken fragments shall be present.**"

Section 3.1 Minimum Drained Weight

The requirement for regular pack Mangoes is 55% while the requirement for regular pack Pineapples was stated as 58% and it is unclear what the reason for the difference is.

This specification falls below the local regulation (*The Processed Food (Grades and Standard) Regulations*) which has a minimum drained weight requirement of 60%.

It is proposed that the requirement for minimum drained weight be increased to 60% to provide consumers with more value.

“(a) Regular packs ~~55%~~ **60%**

(b) Solid pack 78%”

KENYA

Background

2. The revision is limited to the existing individual standards for canned fruits in packing media i.e. canned mangoes (CODEX STAN 159-1987) canned pears (CODEX STAN 61-1981) and canned pineapples (CODEX STAN 42-1981) therefore does not incorporate new canned fruits however the format of the Standard allows for their incorporation (i.e. as an Annex) upon request in the future³.

APPENDIX I CODEX STANDARD FOR CERTAIN CANNED FRUITS

1. SCOPE

This Standard applies to certain canned fruits as defined in **Section 2 below** and in the corresponding Annexes and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

COMMENT

Kenya would like to amend the scope of this standard so it is precise and cover specific fruits mentioned in the body of the standard for the ease of clarification, to read as follows:

This Standard applies to certain canned fruits, [pears, pineapple and mangoes] as defined in Section 2 below and in the corresponding Annexes and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

COMMENT

Kenya would like to propose 10% which is good enough to achieve the correct head space and the corresponding net weight. So we recommend the 20% to be deleted in the statement below.

(c) vacuum packaged such that the packing medium does not exceed ~~[20%]~~ **10%** of the product's net weight and when the container is sealed in such conditions as to generate an internal pressure in accordance with good manufacturing practices.

8. LABELLING

8.1 The products covered by the provisions of this Standard shall be labelled in accordance with the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985). In addition, the following specific provisions apply:

8.2 NAME OF THE PRODUCT

8.2.1 The names of the canned fruits shall be those defined in the corresponding Annexes.

COMMENT

We propose to replace the word ‘may’ with the word ‘shall’ in the statement below to make it mandatory.

8.2.2 When the fruits are sized, the size (or sizes when sizes are mixed), as defined in the corresponding Annexes, ~~may~~ **shall** be declared as part of the name or in close proximity to the name of the product.

PHILLIPINES

GENERAL COMMENTS:

1. The Philippines would like to extend its appreciation to the Electronic Working Group led by Cuba for the preparation of the Proposed Draft Standard for Certain Canned Fruits and taking into consideration this Philippine Position.

2. Statement#5 of the Background states that: “The revision neither covers other group standards for canned fruits already developed by the Committee i.e. canned citrus fruits (CODEX STAN 254-2007)⁶ and canned stone fruits (CODEX STAN 242-2003)⁷.”

The Philippines would like to seek clarification as to the reason why canned mangoes are included as an annex in this standard, when mangoes are classified under stone fruits.

3. Provisions for “Other Permitted Ingredients” in the main standard as well as the Annexes should be changed to “Optional Ingredients” with the following statement:

“All other ingredients used shall be of food grade quality and conform to all applicable standards.”

And where applicable, if there are examples of such Optional Ingredients, should include:

“...which may include but not limited to the following:”

Rationale: To be consistent with existing Codex standards.

SPECIFIC COMMENTS:

The Philippines would like to propose the following:

1. Section 2.1, Product Definition

a. Revise Item # 1 to read as follows:

“Prepared from **any commercially cultivated variety or type of fruit suitable for canning** substantially sound, fresh, frozen or thermally processed but only by physical methods, **pre-processed**, as defined in the corresponding Annexes, having reached appropriate maturity for processing. None of their essential elements are removed from them. They **fruit may** undergo operations such as washing, peeling, coring, stemming, grading, cutting, etc., depending on the type of product.”

Rationale:

Pre-processing may include syruping, thermal as well as non-thermal processes, thus, should not be limited to only thermal processing of the material prior to utilization in the production of canned fruits.

Section 2.3, Varietal Type, statement was integrated into Section 2.1 since this section also describes the material to be used.

b. Revise Item number (2) (b) to read as follows:

“Solid packed fruit prepared without a liquid packing medium and a sweetening ingredient may be used.”

Rationale: for clarity.

c. Delete Item number (2) (c) of Section 2.1.

Rationale:

“Vacuum packaged” or “packed under vacuum” is an integral part of the canning or thermal processing already.

d. Revise Item # (3) to read as follows:

“...processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, **such as but not limited to: glass, flexible packaging, tin cans, rigid plastic containers (tubs, cups), etc.** to ensure product stability under normal storage conditions at **ambient** temperature.

2. Section 2.2.1, Other Styles:

The Philippines would like to suggest that for clarity, “other presentations” be referred to in terms of:

(1) Packing Styles – ready-to-eat (RTE)

(2) Shapes/ cuts

(3) Colors

Thus, the statement would be read as follows:

“Any other presentation such as packing styles, shapes or cuts of the product should be permitted...”

3. Delete Section 2.3, Varietal Type

2.3 VARIETAL TYPE

Any commercially cultivated variety or type suitable for canning may be used.

Rationale: The statement, with its refinement, is integrated in Section 2.1, Item # 1 of Product Definition.

4. Section 3.1.3, Packing Media:

- Second paragraph, last line, correct the spelling from “bellow” to “below.”

5. Section 3.2.1, Colour, Flavour, Texture

The Philippines would like to propose instead the following statement:

“In addition to the specific characteristics laid down in the corresponding Annexes, canned fruits shall have **typical** colour, flavour, **and texture** and odour corresponding to the type or variety of fruit.”

6. Section 4, Food Additives

a. Revise the statement to read as follows:

“Only those food additive classes listed below and in the corresponding Annexes are technologically justified and may be used in products covered by this Standard for functions and limits specified.”

Rationale: for clarity

b. Include the following:

“Any food additive and functional classes adopted by the Codex Alimentarius Commission (CAC) shall be automatically included as an addendum.”

Rationale: For any future technological development, for automatic alignment with CAC.

7. Delete Item # (2) (b) of Section, 8.2.3 “The words „vacuum packaged“ shall be affixed to the commercial designation of the product or in close proximity.”

Rationale: For consistency with the rest of the Draft Standard.

8. Annex I: PEARS: Section 2.2.1, Colour, Flavour, Texture

a. Revise the statement to read as follows:

Canned pears shall have **typical** colour (except for coloured pears as listed in Section 4 of the Standard). A slight pink discoloration should not be regarded as a **quality** defect.

b. The Philippines would like to suggest that descriptors for texture and flavour be included in this Section.

9. Annex II: PINEAPPLES:

a. Revise Section 1.1 Product Definition, to read as:

“Canned pineapples is the product, conforming to the characteristics of *Ananas comosus* or *Ananas sativus*.”

b. Revise Section 1.2.9, Diced or Cubes, to read as:

“Reasonably uniform, cube-shaped pieces.”

Rationale: Including dimensions for this style is limiting, where pieces are not define. This can only be applied to Tidbits and Chunks, which come from the whole fruit.

c. Include another style: Puree which is smaller than the crushed pineapple, consumed as a fruit and not diluted to be consumed as a beverage. Puree can fall under the Other Styles and regular pack.

d. Section 2.2.2, Uniformity of size and shape:

The Philippines would like to suggest that Section 2.2.2.6, Cubes or Diced be deleted to be consistent with the previous note in Item # 9 b. of this position.

10. Annex III: Mangoes:

a. Section 2.2.6 (c) – Change “Rind” to “Skin” since the peel of mangoes are referred to as “skin” and “rind” is normally used for the peel of citrus fruits.

b. Section 2.2.6 (d) – Delete this section since pit/ stone material is not applicable for mangoes.

UNITED STATES

GENERAL COMMENTS

This is in response to the request for comments on the Proposed Draft Codex Standard for Certain Canned Fruits (CX/PFV 12/26/4) that will be considered by the 26th Session of the Codex Committee on Processed Fruits and Vegetables (CCPFV). The proposed draft document states “The proposed provisions for food additives for canned fruits i.e., mangoes, pears and pineapples will be presented in the report of the EWG on food additives.”¹ The U.S. notes that the report of the eWG on Food Additives does not include food additive provisions for canned mangoes, canned pears or canned pineapple. Therefore, the U.S. provides the following specific comments to address food additive provisions contained in proposed draft Annex 1 (Canned Pears), Annex 2 (Canned Pineapple) and Annex 3 (Canned Mango).

¹ CX/PFV 12/26/4, para. 8.

SPECIFIC COMMENTS**Annex 1 – Canned Pears**

Canned pears are included under food category 04.1.2.4 (Canned or bottled (pasteurized) fruit: Fully preserved product in which fresh fruit is cleaned and placed in cans or jars with natural juice or sugar syrup (including artificially sweetened syrup) and heat-sterilized or pasteurized. Includes products processed in retort pouches. Examples include: canned fruit salad, and applesauce in jars.)

Based on current food additive provisions in the standard (Codex Standard for Canned Pears; CODEX STAN 16-1981), food additives with the following functional classes are needed in canned pears:

- Acidity regulators
- Colours
- Flavourings

Flavourings are not included in the Codex General Standard for Food Additives (GSFA; CODEX STAN 192-1995). However, their use must comply with the Codex Guidelines for the Use of Flavourings (CAC/GL 66-2008).

Therefore, the following general reference to the GSFA and reference to the Codex Guidelines for the Use of Flavourings should be inserted in the Food Additive Section of the Annex for Canned Pears:

“Acidity regulators and colours used in accordance with Tables 1 and 2 of the Codex Standard General Standard for Food Additives in food category 04.1.2.4 (Canned or bottled (pasteurized) fruit) or listed in Table 3 of the General Standard for Food Additives are acceptable for use for foods conforming to this standard.”

“Flavourings used in products covered by this standard shall comply with the Codex Guidelines for the Use of Flavourings (CAC/GL 66-2008).”

Acidity regulators and colours listed in the GSFA for food category 04.1.2.4 are as follows:

Acidity Regulators

Tables 1 and 2 of the GSFA do not contain any adopted (Step 8) provisions for acidity regulators for food category 04.1.2.4. However, there is an adopted (Step 8; adopted 2004) provision for an acidity regulator, Carnauba wax (INS 903), in food category 04.1.2 (Processed fruit: Includes all forms of processing other than peeling, cutting and surface treating fresh fruit.) at a maximum use level of 400 mg/kg. Due to the hierarchy of the food category system, an acidity regulator listed in food category 04.1.2 is also allowed for use in foods included in sub-category 04.1.2.4 as an acidity regulator. Therefore, Carnauba wax may also be used in foods included in food category 04.1.2.4 as an acidity regulator.

In addition, the GSFA contains the following draft provisions for acidity regulators that are currently in the step process for listing in food category 04.1.2.4:

INS	GSFA Main term	ML	Notes	Step
262(ii)	Sodium diacetate	GMP		Step 7
334; 335(i),(ii); 336(i),(ii); 337	Tartrates	1300 mg/kg	45	Step 7

Note 45: As tartaric acid.

Table 3 of the GSFA lists the following acidity regulators:

INS	Additive Name	INS	Additive Name
170(i)	Calcium carbonate	365	Sodium fumarates
260	Acetic acid, glacial	380	Triammonium citrate
261	Potassium acetates	500(i)	Sodium carbonate
262(i)	Sodium acetate	500(ii)	Sodium hydrogen carbonate
263	Calcium acetate	500(iii)	Sodium sesquicarbonate
264	Ammonium acetate	501(i)	Potassium carbonate
270	Lactic acid, L-, D- and DL-	501(ii)	Potassium hydrogen carbonate
296	Malic acid, DL-	503(i)	Ammonium carbonate

INS	Additive Name	INS	Additive Name
297	Fumaric acid	503(ii)	Ammonium hydrogen carbonate
300	Ascorbic acid, L-	504(i)	Magnesium carbonate
325	Sodium lactate	504(ii)	Magnesium hydroxide carbonate
326	Potassium lactate	507	Hydrochloric acid
327	Calcium lactate	514(i)	Sodium sulfate
328	Ammonium lactate	514(ii)	Sodium hydrogen sulfate
329	Magnesium lactate, DL-	515(i)	Potassium sulfate
330	Citric acid	515(ii)	Potassium hydrogen sulfate
331(i)	Sodium dihydrogen citrate	524	Sodium hydroxide
331(iii)	Trisodium citrate	525	Potassium hydroxide
332(i)	Potassium dihydrogen citrate	526	Calcium hydroxide
332(ii)	Tripotassium citrate	527	Ammonium hydroxide
333(iii)	Tricalcium citrate	528	Magnesium hydroxide
350(i)	Sodium hydrogen DL-malate	529	Calcium oxide
350(ii)	Sodium DL-malate	575	Glucono delta-lactone
351(i)	Potassium hydrogen malate	577	Potassium gluconate
351(ii)	Potassium malate	578	Calcium gluconate
352(ii)	Calcium malate, DL-	580	Magnesium gluconate

Colours

Tables 1 and 2 of the GSFA list the following colours for food category 04.1.2.4:

INS	Additive Name	ML	Notes	Step
133	Brilliant Blue FCF	200 mg/kg	161	Adopted 2009
150c	Caramel III-ammonia caramel	200 mg/kg		Adopted 2010
150d	Caramel IV – sulfite ammonia caramel	7500 mg/kg		Adopted 2011
120	Carmines	200 mg/kg		Adopted 2005
160a(ii)	Carotenes, beta-, vegetable	1000 mg/kg		Adopted 2005
160a(i),a(iii),e,f	Carotenoids	200 mg/kg	161	Adopted 2010
141(i),(ii)	Chlorophylls and chlorophyllins, copper complexes	100 mg/kg	62	Adopted 2005
143	Fast green FCF	200 mg/kg		Adopted 1999
163(ii)	Grape skin extract	1500 mg/kg	181	Adopted 2011
172(i)-(iii)	Iron oxides	300 mg/kg		Adopted 2005
124	Ponceau (Cochineal red A)	300 mg/kg	161	Adopted 2008
101(i),(ii)	Riboflavins	300 mg/kg		Adopted 2005

Note 62: As copper

Note 161: Subject to national legislation of the importing country aimed, in particular, at consistency with Section 3.2 of the Preamble.

Note 181: Expressed as anthocyanin.

Table 3 of the GSFA lists the following colours:

INS	Additive Name	INS	Additive Name
162	Beet red	150a	Caramel I – plain caramel
140	Chlorophylls	160d(iii)	Lycopene, Blakeslea trispora
160d(i)	Lycopene, synthetic	160d(ii)	Lycopene, tomato
171	Titanium dioxide		

In addition, the GSFA contains the following draft and proposed draft provisions for colours that are currently in the step process for listing in food category 04.1.2.4:

INS	GSFA Mainterm	ML	Notes	Step
100(i)	Curcumin	200 mg/kg		7
102	Tartrazine	200 mg/kg		7
104	Quinoline yellow	200 mg/kg		7
123	Amaranth	200 mg/kg		7
127	Erythrosine	200 mg/kg	54 & 161	6
160b(ii)	Annatto extracts, notbixin-based	200 mg/kg		4
122	Azorubine (carmoisine)	200 mg/kg		7
151	Brilliant Black (Black PN)	200 mg/kg		7
155	Brown HT	200 mg/kg		7

Note 54: For use in cocktail cherries and candied cherries only.

Note 161: Subject to national legislation of the importing country aimed, in particular, at consistency with Section 3.2 of the Preamble.

In addition, the GSFA contains a proposed draft provisions for a colour, Caramel II - sulfite caramel (INS 150b) at 80000 mg/kg with Note 182 (“Except for use in coconut milk.”) that is currently in the step process for listing in food category 04.1.2 (Processed fruit: Includes all forms of processing other than peeling, cutting and surface treating fresh fruit.) Due to the hierarchy of the food category system, a colour listed in food category 04.1.2 is also allowed for use in foods included in sub-category 04.1.2.4 as an acidity regulator. Therefore, Caramel II- sulfite caramel also be used in foods included in food category 04.1.2.4 as a colour.

Annex 2 – Canned Pineapple

Canned pineapple is included under food category 04.1.2.4 (Canned or bottled (pasteurized) fruit: Fully preserved product in which fresh fruit is cleaned and placed in cans or jars with natural juice or sugar syrup (including artificially sweetened syrup) and heat-sterilized or pasteurized. Includes products processed in retort pouches. Examples include: canned fruit salad, and applesauce in jars.).

Based on current food additive provisions in the standard (Codex Standard for Canned Pineapple; CODEX STAN 42-1981), food additives with the following functional classes are needed in canned pineapple:

- Acidity regulators
- Antifoaming Agents
- Flavourings

Flavourings are not included in the GSFA. However, their use must comply with the Codex Guidelines for the Use of Flavourings (CAC/GL 66-2008).

Therefore, the following general reference to the GSFA and reference to the Codex Guidelines for the Use of Flavourings should be inserted in the Food Additive Section of the Annex for Canned Pineapple:

“Acidity regulators and antifoaming agents used in accordance with Tables 1 and 2 of the Codex Standard General Standard for Food Additives in food category 04.1.2.4 (Canned or bottled (pasteurized) fruit) or listed in Table 3 of the General Standard for Food Additives are acceptable for use for foods conforming to this standard.”

“Flavourings used in products covered by this standard shall comply with the Codex Guidelines for the Use of Flavourings (CAC/GL 66-2008).”

Acidity regulators and antifoaming agents listed in the GSFA for food category 04.1.2.4 are as follows:

Acidity Regulators

Tables 1 and 2 of the GSFA do not contain any adopted (Step 8) provisions for acidity regulators for food category 04.1.2.4. However, there is an adopted (Step 8; adopted 2004) provision for an acidity regulator, Carnauba wax (INS 903), in food category 04.1.2 (Processed fruit: Includes all forms of processing other than peeling, cutting and surface treating fresh fruit.) at a maximum use level of 400 mg/kg. Due to the hierarchy of the food category system, an acidity regulator listed in food category 04.1.2 is also allowed for use in foods included in sub-category 04.1.2.4 as an acidity regulator. Therefore, Carnauba wax may also be used in foods included in food category 04.1.2.4 as an acidity regulator.

In addition, the GSFA contains the following draft provisions for acidity regulators that are currently in the step process for listing in food category 04.1.2.4:

INS	GSFA Mainterm	ML	Notes	Step
262(ii)	Sodium diacetate	GMP		Step 7
334; 335(i),(ii); 336(i),(ii); 337	Tartrates	1300 mg/kg	45	Step 7

Note 45: As tartaric acid.

Table 3 of the GSFA lists the following acidity regulators:

INS	Additive Name	INS	Additive Name
170(i)	Calcium carbonate	365	Sodium fumarates
260	Acetic acid, glacial	380	Triammonium citrate
261	Potassium acetates	500(i)	Sodium carbonate
262(i)	Sodium acetate	500(ii)	Sodium hydrogen carbonate
263	Calcium acetate	500(iii)	Sodium sesquicarbonate
264	Ammonium acetate	501(i)	Potassium carbonate
270	Lactic acid, L-, D- and DL-	501(ii)	Potassium hydrogen carbonate
296	Malic acid, DL-	503(i)	Ammonium carbonate
297	Fumaric acid	503(ii)	Ammonium hydrogen carbonate
300	Ascorbic acid, L-	504(i)	Magnesium carbonate
325	Sodium lactate	504(ii)	Magnesium hydroxide carbonate
326	Potassium lactate	507	Hydrochloric acid
327	Calcium lactate	514(i)	Sodium sulfate
328	Ammonium lactate	514(ii)	Sodium hydrogen sulfate
329	Magnesium lactate, DL-	515(i)	Potassium sulfate
330	Citric acid	515(ii)	Potassium hydrogen sulfate
331(i)	Sodium dihydrogen citrate	524	Sodium hydroxide
331(iii)	Trisodium citrate	525	Potassium hydroxide
332(i)	Potassium dihydrogen citrate	526	Calcium hydroxide
332(ii)	Tripotassium citrate	527	Ammonium hydroxide
333(iii)	Tricalcium citrate	528	Magnesium hydroxide
350(i)	Sodium hydrogen DL-malate	529	Calcium oxide
350(ii)	Sodium DL-malate	575	Glucono delta-lactone
351(i)	Potassium hydrogen malate	577	Potassium gluconate

INS	Additive Name	INS	Additive Name
351(ii)	Potassium malate	578	Calcium gluconate
352(ii)	Calcium malate, DL-	580	Magnesium gluconate

Antifoaming Agents

Tables 1 and 2 of the GSFA list the following antifoaming agent for food category 04.1.2.4:

INS	Additive Name	ML	Notes	Step
900 ^a	Polydimethylsiloxane	10 mg/kg		Adopted 1999

Table 3 of the GSFA lists the following antifoaming agents:

INS	Additive Name	INS	Additive Name
404	Calcium alginate	551	Silicon dioxide, amorphous
471	Mono- and di-glycerides of fatty acids		

Annex 3 - Canned Mangoes

Canned mangoes are included under food category 04.1.2.4 (Canned or bottled (pasteurized) fruit: Fully preserved product in which fresh fruit is cleaned and placed in cans or jars with natural juice or sugar syrup (including artificially sweetened syrup) and heat-sterilized or pasteurized. Includes products processed in retort pouches. Examples include: canned fruit salad, and applesauce in jars.).

Based on current food additive provisions in the standard (Codex Standard for Canned Mangoes; CODEX STAN 159-1987), food additives with the following functional classes are needed in canned mangoes:

- Acidity regulators
- Antioxidants
- Colours
- Firming Agents

Therefore, the following general reference to the GSFA should be inserted in the Food Additive Section of the Annex for Canned Mangoes:

“Acidity regulators, antioxidants, colours, and firming agents used in accordance with Tables 1 and 2 of the Codex Standard General Standard for Food Additives in food category 04.1.2.4 (Canned or bottled (pasteurized) fruit) or listed in Table 3 of the General Standard for Food Additives are acceptable for use for foods conforming to this standard.”

Acidity regulators, antioxidants, colours, and firming agents listed in the GSFA for food category 04.1.2.4 are as follows:

Acidity Regulators

Tables 1 and 2 of the GSFA do not contain any adopted (Step 8) provisions for acidity regulators for food category 04.1.2.4. However, there is an adopted (Step 8; adopted 2004) provision for an acidity regulator, Carnauba wax (INS 903), in food category 04.1.2 (Processed fruit: Includes all forms of processing other than peeling, cutting and surface treating fresh fruit.) at a maximum use level of 400 mg/kg. Due to the hierarchy of the food category system, an acidity regulator listed in food category 04.1.2 is also allowed for use in foods included in sub-category 04.1.2.4 as an acidity regulator. Therefore, carnauba wax may also be used in foods included in food category 04.1.2.4 as an acidity regulator.

In addition, the GSFA contains the following draft provisions for acidity regulators that are currently in the step process for listing in food category 04.1.2.4:

INS	GSFA Mainterm	ML	Notes	Step
262(ii)	Sodium diacetate	GMP		Step 7
334; 335(i),(ii); 336(i),(ii); 337	Tartrates	1300 mg/kg	45	Step 7

Note 45: As tartaric acid.

Table 3 of the GSFA lists the following acidity regulators:

INS	Additive Name	INS	Additive Name
170(i)	Calcium carbonate	365	Sodium fumarates
260	Acetic acid, glacial	380	Triammonium citrate
261	Potassium acetates	500(i)	Sodium carbonate
262(i)	Sodium acetate	500(ii)	Sodium hydrogen carbonate
263	Calcium acetate	500(iii)	Sodium sesquicarbonate
264	Ammonium acetate	501(i)	Potassium carbonate
270	Lactic acid, L-, D- and DL-	501(ii)	Potassium hydrogen carbonate
296	Malic acid, DL-	503(i)	Ammonium carbonate
297	Fumaric acid	503(ii)	Ammonium hydrogen carbonate
300	Ascorbic acid, L-	504(i)	Magnesium carbonate
325	Sodium lactate	504(ii)	Magnesium hydroxide carbonate
326	Potassium lactate	507	Hydrochloric acid
327	Calcium lactate	514(i)	Sodium sulfate
328	Ammonium lactate	514(ii)	Sodium hydrogen sulfate
329	Magnesium lactate, DL-	515(i)	Potassium sulfate
330	Citric acid	515(ii)	Potassium hydrogen sulfate
331(i)	Sodium dihydrogen citrate	524	Sodium hydroxide
331(iii)	Trisodium citrate	525	Potassium hydroxide
332(i)	Potassium dihydrogen citrate	526	Calcium hydroxide
332(ii)	Tripotassium citrate	527	Ammonium hydroxide
333(iii)	Tricalcium citrate	528	Magnesium hydroxide
350(i)	Sodium hydrogen DL-malate	529	Calcium oxide
350(ii)	Sodium DL-malate	575	Glucono delta-lactone
351(i)	Potassium hydrogen malate	577	Potassium gluconate
351(ii)	Potassium malate	578	Calcium gluconate
352(ii)	Calcium malate, DL-	580	Magnesium gluconate

Antioxidants

Tables 1 and 2 of the GSFA list the following antioxidants for food category 04.1.2.4:

INS	Additive Name	ML	Notes	Step
512	Stannous Chloride	20 mg/kg	43	Adopted 2001

Note 43: As tin.

Table 3 of the GSFA lists the following antioxidants:

INS Number	Additive Name	INS Number	Additive Name
300	Ascorbic acid, L-	325	Sodium lactate
301	Sodium ascorbate	326	Potassium lactate
302	Calcium ascorbate	330	Citric acid
303	Potassium ascorbate	472c	Citric and fatty acid esters of glycerol

INS Number	Additive Name	INS Number	Additive Name
315	Erythorbic Acid (Isoascorbic acid)	942	Nitrous oxide
316	Sodium erythorbate (Sodium isoascorbate)	1102	Glucose oxidase
322(i)	Lecithin		

Colours

Tables 1 and 2 of the GSFA list the following colours for food category 04.1.2.4:

INS	Additive Name	ML	Notes	Step
133	Brilliant Blue FCF	200 mg/kg	161	Adopted 2009
150c	Caramel III-ammonia caramel	200 mg/kg		Adopted 2010
150d	Caramel IV – sulfite ammonia caramel	7500 mg/kg		Adopted 2011
120	Carmines	200 mg/kg		Adopted 2005
160a(ii)	Carotenes, beta-, vegetable	1000 mg/kg		Adopted 2005
160a(i),a(iii),e,f	Carotenoids	200 mg/kg	161	Adopted 2010
141(i),(ii)	Chlorophylls and chlorophyllins, copper complexes	100 mg/kg	62	Adopted 2005
143	Fast green FCF	200 mg/kg		Adopted 1999
163(ii)	Grape skin extract	1500 mg/kg	181	Adopted 2011
172(i)-(iii)	Iron oxides	300 mg/kg		Adopted 2005
124	Ponceau (Cochineal red A)	300 mg/kg	161	Adopted 2008
101(i),(ii)	Riboflavins	300 mg/kg		Adopted 2005

Note 62: As copper

Note 161: Subject to national legislation of the importing country aimed, in particular, at consistency with Section 3.2 of the Preamble.

Note 181: Expressed as anthocyanin.

Table 3 of the GSFA lists the following colours:

INS	Additive Name	INS	Additive Name
162	Beet red	150a	Caramel I – plain caramel
140	Chlorophylls	160d(iii)	Lycopene, Blakeslea trispora
160d(i)	Lycopene, synthetic	160d(ii)	Lycopene, tomato
171	Titanium dioxide		

In addition, the GSFA contains the following draft and proposed draft provisions for colours that are currently in the step process for listing in food category 04.1.2.4:

INS	GSFA Mainterm	ML	Notes	Step
100(i)	Curcumin	200 mg/kg		7
102	Tartrazine	200 mg/kg		7
104	Quinoline yellow	200 mg/kg		7
123	Amaranth	200 mg/kg		7

INS	GSFA Mainterm	ML	Notes	Step
127	Erythrosine	200 mg/kg	54 & 161	6
160b(ii)	Annatto extracts, notbixin-based	200 mg/kg		4
122	Azorubine (carmoisine)	200 mg/kg		7
151	Brilliant Black (Black PN)	200 mg/kg		7
155	Brown HT	200 mg/kg		7

Note 54: For use in cocktail cherries and candied cherries only.

Note 161: Subject to national legislation of the importing country aimed, in particular, at consistency with Section 3.2 of the Preamble.

In addition, the GSFA contains a proposed draft provisions for a colour, Caramel II - sulfite caramel (INS 150b) at 80000 mg/kg with Note 182 ("Except for use in coconut milk.") that is currently in the step process for listing in food category 04.1.2 (Processed fruit: Includes all forms of processing other than peeling, cutting and surface treating fresh fruit.) Due to the hierarchy of the food category system, a colour listed in food category 04.1.2 is also allowed for use in foods included in sub-category 04.1.2.4 as an acidity regulator. Therefore, Caramel II- sulfite caramel also be used in foods included in food category 04.1.2.4 as a colour.

Firming Agents

Tables 1 and 2 of the GSFA list no firming agents for food category 04.1.2.4.

Table 3 of the GSFA lists the following firming agents:

INS	Additive Name	INS	Additive Name
333(iii)	Tricalcium citrate	516	Calcium sulfate
424	Curdlan	518	Magnesium sulfate
466	Sodium carboxymethyl cellulose (Cellulose gum)	526	Calcium hydroxide
509	Calcium chloride	578	Calcium gluconate
511	Magnesium chloride	580	Magnesium gluconate