

C O D E X A L I M E N T A R I U S

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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STANDARD FOR CANNED FRUIT COCKTAIL

CXS 78-1981

Adopted in 1981. Amended in 2017.

1. DESCRIPTION

1.1 Product definition

Canned fruit cocktailⁱ is the product:

- (a) prepared from a mixture of small fruits and small pieces of fruits (as further described in this standard) which may be fresh, frozen or canned.

The fruits shall be of the following kinds and styles:

Peaches – any firm yellow variety of the species *Prunus persica* L. including clingstone and freestone types but excluding nectarines, peeled, pitted and diced.

Pears – any variety of the species *Pyrus communis* L. or *Pyrus sinensis* L. peeled, cored, and diced.

Pineapple – any variety of the species *Ananas comosus* L., peeled, cored, in sectors, or diced.

Cherries – any variety of the species *Prunus cerasus* L., halves or whole, pitted or unpitted, and which may be:

- (i) any light, sweet variety; or
- (ii) artificially coloured red; or
- (iii) artificially coloured red with added flavourings, whether natural or synthetic.

Grapes – any seedless variety of the species *Vitis vinifera* L. or *Vitis labrusca* L., whole.

- (b) packed with water or other suitable liquid packing medium, and which may contain seasonings or flavourings appropriate for the product; and
- (c) processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

1.2 Presentation

1.2.1 Forms of packing

1.2.1.1 5 Fruits – Fruit cocktail

A mixture of the five fruits of the kinds and styles described in this standard (1.1(a)).

1.2.1.2 4 Fruits – Fruit cocktail

A mixture of four fruits of the kinds and styles described in this standard (1.1 (a)) except that:

- (a) cherries may be omitted; or
- (b) grapes may be omitted.

1.2.2 Forms of packing media

Canned fruit cocktail may be packed in any one of the following packing media with or without sugars and/or optional ingredients:

- (a) **water** – in which water is the sole liquid packing medium;
- (b) **water and fruit juice** – in which water and fruit juice(s) from the specified fruits, which may be strained or filtered, is the sole liquid packing medium; or

ⁱ This standard supersedes the standard for canned fruit cocktail (formerly CAC/RS 78-1976).

- (c) **fruit juice** – in which one or more fruit juice(s) from the specified fruits, which may be strained or filtered, is the sole liquid packing medium.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Composition

2.1.1 Basic ingredients

- Fruit as defined in 1.1(a);
- Water; and
- Fruit juice

2.1.2 Other ingredients

- One or more of the following sugars: sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup;
- Spices; and
- Mint

2.2 Formulation

2.2.1 Fruit content

2.2.1.1 Proportions of fruits

The products shall contain fruits in the following proportions, based on the individual drained fruit weights in relation to the total drained weight of all the fruits:

	5 fruits – fruit cocktail	4 fruits – fruit cocktail
Peaches	30% to 50%	30% to 50%
Pears	25% to 45%	25% to 45%
Pineapple	6% to 16%	6% to 25%
Grapes	6% to 20%	and either 6% to 20%
Cherries	2% to 6%	or 2% to 15%

2.2.1.2 Compliance with fruit content requirements

A lot will be considered as meeting the requirements for proportions of fruits (2.2.1.1) when:

- (a) the average of the individual fruit proportions from all containers in the sample is within the range required for the individual fruits; and
- (b) the number of individual containers which are not within the range for any one or more fruits do not exceed the acceptance number (c) of an appropriate sampling plan with an accepted quantity limit (AQL) of 6.5 (see relevant Codex texts on methods of analysis and sampling).

2.2.2 *Packing media*

2.2.2.1 *Classification of packing media when sugars are added*

- a) When sugars are added to water or water and one or more fruit juices the liquid media shall be classified on the basis of the cut-out strength as follows:

Basic syrup strengths

Light syrup not less than 14 °Brix

Heavy syrup not less than 18 °Brix

Optional packing media

When not prohibited in the country of sale, the following packing media may be used:

water slightly sweetened)

slightly sweetened water) not less than 10 °Brix but less than 14 °Brix

extra light syrup)

extra heavy syrup not less than 22 °Brix

- b) When sugars are added to fruit juice(s), the liquid media shall be not less than 14 °Brix and they are classified on the basis of the cut-out strength as follows:

lightly sweetened

(name of fruits) juice not less than 14 °Brix

heavily sweetened

(name of fruits) juice not less than 18 °Brix

2.2.2.2 *Compliance with packing media classification*

Cut-out strength of sweetened juice of syrup is to be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if applicable.

2.3 **Sizes and shapes of fruits**

2.3.1 *Diced peaches, pears or pineapple*

75 percent or more of all such drained fruits are of approximate cube-shapes which:

- (a) are not over 20 mm in greatest edge dimension; and
- (b) will not pass through square meshes of 8 mm.

2.3.2 *Sectors of pineapple*

80 percent or more of all the drained pineapple portion approximate wedge-shapes of the following dimensions:

- (a) outside arc 10 mm to 25 mm; and
- (b) thickness 10 mm to 15 mm; and
- (c) radius (from inside to outside arc) 20 mm to 40 mm.

2.3.3 *Whole grapes or cherries*

90 percent or more by count (based on sample average) of whole grapes, or of whole cherries, approximate normal shape except for proper preparation (such as removing pits or stems) and:

- (a) are not broken into two or more parts;
- (b) are not seriously crushed, mutilated, or torn.

2.3.4 *Halved cherries*

80 percent or more by count (based on sample average) of the cherry units are approximate halves which are not broken into two or more parts.

2.4 **Quality criteria**

2.4.1 Colour – canned fruit cocktail shall have normal colour except that a slight leaching of colour from the coloured cherries is acceptable.

2.4.2 Flavour – canned fruit cocktail shall have a normal flavour characteristic for each fruit and for the entire mixture.

Canned fruit cocktail with special ingredients shall have the flavour characteristic of that imparted by the fruits in the product and the other substances used.

2.4.3 Texture – the fruit ingredients shall not be excessively firm nor excessively soft, as is appropriate for the respective fruit.

2.4.4 Defects and allowances – canned fruit cocktail shall be substantially free from defects within the limits set forth as follows: (see relevant Codex texts on methods of analysis and sampling).

Maximum limits

(based on the weight of drained fruit)

- | | | |
|-----|---|---|
| (a) | Blemished fruit pieces
(consisting of pieces of fruit with dark surface areas, spots penetrating the fruit, and other abnormalities) | 20% m/m
Total of all fruit units so affected |
| (b) | Peel (based on averages)
(considered a defect only when occurring on, or from, those fruits which are peeled) | 25 cm ²
aggregate area per kg |
| (c) | Pit material (based on averages)
(consisting of pieces of pit or of fruit stones and hard and sharp pit points; very small pit fragments of less than 5 mm in greatest dimension which do not have sharp points or edges are disregarded) | 1 piece, of any size per 2 kg |
| (d) | Small stems (based on averages)
(such as capstems from grapes) | 5 per kg |
| (e) | Large stems (based on averages)
(such as from peaches, pears, or cherries) | 1 large stem, or piece thereof, per kg |

2.4.5 Classification of “defectives”

A container shall be considered a “defective” when it fails to meet one or more of:

- (1) the applicable requirements in 2.3.1 through 2.3.4 (except for style and shapes for grapes and cherries which are based on averages); and
- (2) the applicable quality requirements in 2.4.1 through 2.4.4 (except for peel, pit material, and stems which are based on averages).

2.4.6 Lot acceptance

A lot will be considered as meeting the applicable quality and other requirements referred to in subsection 2.4.5 when:

- (a) for those requirements which are not based on averages the number of “defectives”, as defined in subsection 2.4.5, does not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5 (see relevant Codex texts on methods of analysis and sampling); and
- (b) the requirements which are based on sample average are complied with.

3. FOOD ADDITIVES

Additives	Maximum level
3.1 Colours	
Erythrosine (to colour cherries only when artificially coloured cherries are used)	Limited by good manufacturing practice
3.2 Flavourings	
3.2.1 Natural fruit essence	Limited by good manufacturing practice
3.2.2 Natural flavours and synthetic flavourings	Limited by good manufacturing practice
3.2.3 Cherry laurel oil (<i>artificially coloured cherries only</i>)	10 mg/kg in the total product
3.2.4 Bitter almond oil (<i>artificially coloured cherries only</i>)	40 mg/kg in the total product
3.3 Antioxidant	
L-ascorbic acid	500 mg/kg

4. CONTAMINANTS

Lead (Pb)	1 mg/kg
Tin (Sn)	250 mg/kg calculated as Sn

5. HYGIENE

- 5.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CXC 1-1969),¹ and other codes of practice recommended by the Codex Alimentarius Commission which are relevant to this product.
- 5.2 To the extent possible in good manufacturing practice, the product shall be free from objectionable matter.

5.3 When tested by appropriate methods of sampling and examination, the product:

- shall be free from microorganisms in amounts which may represent a hazard to health;
- shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from microorganisms in amounts which may represent a hazard to health.

6. WEIGHTS AND MEASURES

6.1 Fill of container

6.1.1 *Minimum fill*

The container shall be well filled with fruit and the product (including packing medium) shall occupy not less than 90 percent of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20 °C which the sealed container will hold when completely filled.

6.1.2 *Classification of “defective”*

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 6.1.1 shall be considered a “defective”.

6.1.3 *Lot acceptance*

A lot will be considered as meeting the requirement of 6.1.1 when the number of “defectives” does not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5 (see relevant Codex texts on methods of analysis and sampling).

6.1.4 *Minimum drained weight*

6.1.4.1 The drained weight of the product shall be not less than 60 percent of the weight of distilled water at 20 °C which the sealed container will hold when completely filled.

6.1.4.2 The requirement for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

7. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985),² the following specific provisions apply:

7.1 The name of the food

7.1.1 The name of the product shall be “Fruit Cocktail”.

7.1.2 The following, as applicable, shall be included as part of the name or in close proximity to the name, unless in the country where the product is sold a true pictorial representation of the product accompanied by a complete list of the fruits in the statement of ingredients would suffice in accordance with its national legislation:

“5 Fruits” or “With Five Fruits”;

or

“4 Fruits” or “With Four Fruits”.

7.1.3 When the packing medium is composed of water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as part of the name or in close proximity thereto as:

“In water” or “Packed in water”.

7.1.4 When the packing medium is composed solely of a single fruit juice, the packing medium shall be declared as part of the name or in close proximity thereto as:

“In (name of fruit) juice”.

7.1.5 When the packing medium is composed of two or more fruit juices, it shall be declared as part of the name or in close proximity thereto:

“In (name of fruits) juice” or “In fruit juices” or “In mixed fruit juices”.

7.1.6 When sugars are added to water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as may be appropriate:

- “Water slightly sweetened” or;
- “Slightly sweetened water” or;
- “Extra light syrup” or;
- “Light syrup” or;
- “Heavy syrup” or
- “Extra heavy syrup”.

7.1.7 When the packing medium contains water and one or more fruit juice(s), in which the fruit juice comprises 50 percent or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as for example:

“In (name of fruits) juice(s) and water”

7.1.8 When sugars are added to one or more fruit juices, the packing medium shall be declared as may be appropriate:

“Lightly sweetened (name of fruit(s)) juice”; or

“Heavily sweetened (name of fruit(s)) juice”; or

“Lightly sweetened fruit juices”; or

“Lightly sweetened mixed fruit juices”; or

“Heavily sweetened fruit juice”; or

“Heavily sweetened mixed fruit juices”.

7.1.9 A declaration, as part of the name or in close proximity to the name, shall be made of any characteristic flavouring; e.g. With “X”, as appropriate.

7.2 List of ingredients

7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985)² except as provided for in 7.2.2 and 7.2.3.

7.2.2 When cherries are artificially coloured and/or have added flavourings, the following declarations are permitted in the list of ingredients in lieu of naming the additive:

“Cherries artificially coloured red”; or

“Cherries artificially coloured red with added flavourings”.

7.2.3 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner:

“L-ascorbic acid added as an antioxidant”.

8. METHODS OF ANALYSIS AND SAMPLING

For checking compliance with this standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CXS 234-999)³ relevant to the provisions in this standard shall be used.

NOTES

¹ FAO and WHO. 1969. *General Principles of Food Hygiene*. Codex Alimentarius Code of Practice, No. CXC 1-1969. Codex Alimentarius Commission. Rome.

² FAO and WHO. 1985. *General Standard for the Labelling of Pre-packaged Foods*. Codex Alimentarius Standard, No. CXS 1-1985. Codex Alimentarius Commission. Rome.

³ FAO and WHO. 1999. *Recommended Methods of Analysis and Sampling*. Codex Alimentarius Standard, No. CXS 234-1999. Codex Alimentarius Commission. Rome.