



Food and Agriculture
Organization of the
United Nations



World Health
Organization

CODEX
ALIMENTARIUS
INTERNATIONAL FOOD STANDARDS

CODEX ALIMENTARIUS
STANDARD

**STANDARD FOR
CHOCOLATE AND
CHOCOLATE PRODUCTS**
CXS 87-1981



ADOPTED 1981
AMENDED 2025

CXS 87-1981

History of the standard

2026 Corrigendum

Transcription errors in numbering were corrected in Section 2.1.1: “Chocolate” and Section 2.1.2: “Sweet chocolate” to align with the 2003 revision.

This publication was redesigned and published in 2026.

2025 Amendments

Following decisions taken at the Forty-eighth Session of the Codex Alimentarius Commission in November 2025, amendments were made in Section 6: “Methods of analysis and sampling” to align with the *Recommended methods of analysis and sampling* (CXS 234-1999).

2022 Amendment

The following amendment was made to the text of the standard following decisions taken at the Forty-fifth Session of the Codex Alimentarius Commission in December 2022.

Page	Location	Original text	Amended text
8	Section 5.3: “Labelling of non-retail containers”	Information required in Section 5.1: “Name of food” and 5.2: “Declaration of minimum cocoa content” of this standard and Section 4 of the <i>General standard for the labelling of pre-packaged foods</i> shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor and/or importer shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor and/or importer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.	The labelling of non-retail containers should be in accordance with the <i>General standard for the labelling of non-retail containers of foods</i> (CXS 346-2021).

Amendments and revisions made prior to 2022:

Amended in 2016.

Revised in 2003.

Adopted in 1981.

1 Scope

The standard applies to chocolate and chocolate products intended for human consumption and listed in Section 2: “Description and essential composition factors”. Chocolate and chocolate products shall be prepared from cocoa and cocoa materials with sugars and may contain sweeteners, milk products, flavouring substances and other food ingredients.

2 Description and essential composition factors

Chocolate is the generic name for the homogenous products complying with the descriptions below and summarized in Table 1. It is obtained by an adequate manufacturing process from cocoa materials which may be combined with milk products, sugars and/or sweeteners, and other additives listed in Section 3: “Food additives” of the present standard. Other edible foodstuffs, excluding added flour and starch (except for products in Section 2.1.1.1: “Chocolate a la taza” and Section 2.1.1.2: “Chocolate familiar a la taza” of this standard) and animal fats other than milkfat, may be added to form various chocolate products. These combined additions shall be limited to 40 percent of the total weight of the finished product, subject to the labelling provisions under Section 5: “Labelling”.

The addition of vegetable fats other than cocoa butter shall not exceed 5 percent of the finished product, after deduction of the total weight of any other added edible foodstuffs, without reducing the minimum contents of cocoa materials. Where required by the authorities having jurisdiction, the nature of the vegetable fats permitted for this purpose may be prescribed in applicable legislation.

2.1 Chocolate types (composition)

2.1.1 Chocolate

Chocolate (in some regions also named “bittersweet chocolate”, “semi-sweet chocolate”, “dark chocolate” or “chocolat fondant”) shall contain, on a dry matter basis, not less than 35 percent total cocoa solids, of which not less than 18 percent shall be cocoa butter and not less than 14 percent fat-free cocoa solids.

2.1.1.1 *Chocolate a la taza*

Chocolate a la taza is the product described under Section 2.1.1: “Chocolate” of this standard and containing a maximum of 8 percent m/m flour and/or starch from wheat, maize or rice.

2.1.2 Sweet chocolate

Sweet chocolate shall contain, on a dry matter basis, not less than 30 percent total cocoa solids, of which at least 18 percent shall be cocoa butter and at least 12 percent fat-free cocoa solids.

2.1.2.1 *Chocolate familiar a la taza*

Chocolate familiar a la taza is the product described under Section 2.1.2: “Sweet chocolate” of this standard and containing a maximum of 18 percent m/m flour and/or starch from wheat, maize or rice.

2.1.3 Couverture chocolate

Couverture chocolate shall contain, on a dry matter basis, not less than 35 percent total cocoa solids of which not less than 31 percent shall be cocoa butter and not less than 2.5 percent of fat-free cocoa solids.

2.1.4 Milk chocolate

Milk chocolate shall contain, on a dry matter basis, not less than 25 percent cocoa solids (including a minimum of 2.5 percent fat-free cocoa solids) and a specified minimum of milk solids between 12 percent and 14 percent (including a minimum of milkfat between 2.5 percent and 3.5 percent).

The minimum content for milk solids and milkfat shall be applied by the authority with jurisdiction in accordance with applicable legislation. "Milk solids" refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

Where required by the competent authority, a minimum content of cocoa butter plus milkfat may also be set.

2.1.5 Family milk chocolate

Family milk chocolate shall contain, on a dry matter basis, not less than 20 percent cocoa solids (including a minimum of 2.5 percent fat-free cocoa solids) and not less than 20 percent milk solids (including a minimum of 5 percent milkfat).

"Milk solids" refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

Where required by the competent authority, a minimum content of cocoa butter plus milkfat may also be set.

2.1.6 Milk chocolate couverture

Milk chocolate couverture shall contain, on a dry matter basis, not less than 25 percent cocoa solids (including a minimum of 2.5 percent non-fat cocoa solids) and not less than 14 percent milk solids (including a minimum of 3.5 percent milkfat) and a total fat of not less than 31 percent.

"Milk solids" refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

2.1.7 Other chocolate products

2.1.7.1 *White chocolate*

White chocolate shall contain, on a dry matter basis, not less than 20 percent cocoa butter and not less than 14 percent milk solids (including a minimum of milkfat in a range of 2.5 percent to 3.5 percent as applied by the authority having jurisdiction in accordance with applicable legislation).

"Milk solids" refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

Where required by the competent authority, a minimum content of cocoa butter plus milkfat may also be set.

2.1.7.2 *Gianduja chocolate*

"Gianduja" (or one of the derivatives of the word "gianduja") chocolate is the product obtained, firstly, from chocolate having a minimum total dry cocoa solids content of 32 percent, including a minimum dry non-fat cocoa solids content of 8 percent, and, secondly, from finely ground hazelnuts such that the product contains not less than 20 percent and not more than 40 percent of hazelnuts.

The following may be added:

- a) milk and/or dry milk solids obtained by evaporation, in such proportion that the finished product does not contain more than 5 percent dry milk solids; and
- b) almonds, hazelnuts and other nut varieties, either whole or broken, in such quantities that, together with the ground hazelnuts, they do not exceed 60 percent of the total weight of the product.

2.1.7.3 *Gianduja milk chocolate*

“Gianduja” (or one of the derivatives of the word “Gianduja”) milk chocolate is the product obtained, first, from milk chocolate having a minimum dry milk solids content of 10 percent and, second, from finely ground hazelnuts such that the product contains not less than 15 percent and not more than 40 percent of hazelnuts.

“Milk solids” refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

The following may be added: almonds, hazelnuts and other nut varieties, either whole or broken, in such quantities that, together with the ground hazelnuts, they do not exceed 60 percent of the total weight of the product.

Where required by the competent authority, a minimum content of cocoa butter plus milkfat may also be set.

2.1.7.4 *Chocolate para mesa*

Chocolate para mesa is unrefined chocolate in which the grain size of sugars is larger than 70 microns.

2.1.7.4.1 *Chocolate para mesa*

Chocolate para mesa shall contain, on a dry matter basis, not less than 20 percent total cocoa solids (including a minimum of 11 percent cocoa butter and a minimum of 9 percent fat-free cocoa solids).

2.1.7.4.2 *Semi-bitter chocolate para mesa*

Semi-bitter chocolate para mesa shall contain, on a dry matter basis, not less than 30 percent total cocoa solids (including a minimum of 15 percent cocoa butter and a minimum of 14 percent fat-free cocoa solids).

2.1.7.4.3 *Bitter chocolate para mesa*

Bitter chocolate para mesa shall contain, on a dry matter basis, not less than 40 percent total cocoa solids (including a minimum of 22 percent cocoa butter and a minimum of 18 percent fat-free cocoa solids).

2.2 **Chocolate types (forms)**

2.2.1 **Chocolate vermicelli and chocolate flakes**

Chocolate vermicelli and chocolate flakes are cocoa products obtained by a mixing, extrusion and hardening technique which gives unique, crisp textural properties to the products. Vermicelli are presented in the form of short, cylindrical grains and flakes in the form of small flat pieces.

2.2.1.1 *Chocolate vermicelli/Chocolate flakes*

Chocolate vermicelli/chocolate flakes shall contain, on a dry matter basis, not less than 32 percent total cocoa solids, of which at least 12 percent shall be cocoa butter and 14 percent fat-free cocoa solids.

2.2.1.2 *Milk chocolate vermicelli/Milk chocolate flakes*

Milk chocolate vermicelli/milk chocolate flakes shall contain, on a dry matter basis, not less than 20 percent cocoa solids (including a minimum of 2.5 percent fat-free cocoa solids) and not less than 12 percent milk solids (including a minimum of 3 percent milkfat). “Milk solids” refers to the addition of milk ingredients in their natural proportions, except that milkfat may be added or removed.

Where required by the competent authority, a minimum content of cocoa butter plus milkfat may also be set.

2.2.2 Filled chocolate

Filled chocolate is a product covered by a coating of one or more of the chocolates defined in Section 2.1: “Chocolate types (composition)”, with the exception of chocolate a la taza, chocolate familiar a la taza and products defined in Section 2.1.7.4: “Chocolate para mesa”, the centre of which is clearly distinct, through its composition, from the external coating. Filled chocolate does not include flour confectionery, pastry, biscuit or ice cream products. The chocolate part of the coating must make up at least 25 percent of the total weight of the product concerned.

If the centre part of the product is made up of a component or components for which a separate Codex standard exists, the component(s) must comply with the applicable standard.

2.2.3 A chocolate or praline

A chocolate or praline designates the product in a single mouthful size, where the amount of the chocolate component shall not be less than 25 percent of the total weight of the product. The product shall consist of either filled chocolate or a single or combination of the chocolates as defined under Section 2.1: “Chocolate types (composition)”, with the exception of chocolate a la taza, chocolate familiar a la taza and products defined in Section 2.1.7.4: “Chocolate para mesa”.

Table 1: Summary table of compositional requirements of Section 2ⁱ

Products	Constituents (%)						
	Cocoa butter	Fat-free cocoa solids	Total cocoa solids	Milkfat	Total milk solids	Starch /Flour	Hazelnuts
2.1 Chocolate types (composition)							
2.1.1 Chocolate	≥18	≥14	≥35				
2.1.1.1 Chocolate a la taza	≥18	≥14	≥35			< 8	
2.1.2 Sweet chocolat	≥18	≥12	≥30				
2.1.2.1 Chocolate familiar a la taza	≥18	≥12	≥30			< 18	
2.1.3 Couverture chocolate	≥31	≥2.5	≥35				
2.1.4 Milk chocolate		≥2.5	≥25	≥2.5-3.5	≥12-14		
2.1.5 Family milk chocolate		≥2.5	≥20	≥5	≥20		
2.1.6 Milk chocolate couverture		≥2.5	≥25	≥3.5	≥14		

i Milk solids refers to the addition of milk ingredients in their natural proportions except that milkfat may be added or removed.

Products	Constituents (%)						
2.1.7 Other chocolate products							
2.1.7.1 White chocolate	≥20				≥2.5-3.5	≥14	
2.1.7.2 Gianduja chocolate		≥8	≥32				≥20 and ≤40
2.1.7.3 Gianduja milk chocolate		≥2.5	≥25		≥2.5-3.5	≥10	≥15 and ≤40
2.1.7.4 Chocolate para mesa							
2.1.7.4.1 Chocolate para mesa	≥11	≥9	≥20				
2.1.7.4.2 Semi-bitter chocolate para mesa	≥15	≥14	≥30				
2.1.7.4.3 Bitter chocolate para mesa	≥22	≥18	≥40				
2.2 Chocolate types (forms)							
2.2.1 Chocolate vermicelli/Chocolate flakes							
2.2.1.1 Chocolate vermicelli/ Chocolate flakes	≥12	≥14	≥32				
2.2.1.2 Milk chocolate vermicelli/Milk chocolate flakes		≥2.5	≥ 20	≥3		≥12	
2.2.2 Filled chocolate (see Section 2.2.2: "Filled chocolate")							
2.2.3 A chocolate or praline: see Section 2.2.3: "A chocolate or praline"							

Note:

% calculated on the dry matter in the product and after deduction of the weight of the other edible foodstuffs authorized under Section 2: "Description and essential composition factors".

3 Food additives

Acidity regulators, antioxidants, bulking agents, colours (for surface decoration purposes only), emulsifiers, glazing agents and sweeteners used in accordance with Tables 1 and 2 of the *General standard for food additives* (CXS 192-1995)¹ in food category 05.1.4 (Chocolate and chocolate products) and its parent food categories are acceptable for use in foods conforming to this standard. Only certain Table 3 food additives (as indicated in Table 3) are acceptable for use in foods conforming to this standard.

The flavourings used in products covered by this standard should comply with the *Guidelines for the Use of Flavourings* (CXG 66-2008).² Only those flavourings that do not imitate chocolate or milk flavours are permitted at GMP for products described under Section 2.1: “Chocolate types (composition)” and Section 2.2: “Chocolate types (forms)”, except for vanillin and ethyl vanillin at a maximum level of 1 000 mg/kg, singly or in combination.

Processing aids	Maximum level
Hexane (62 °C-82 °C)	1 mg/kg calculated on a fat content basis

Note:

The processing aids used in products conforming to this standard should be consistent with the *Guidelines on substances used as processing aids* (CXG 75-2010).³

4 Hygiene

It is recommended that the products 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),⁴ the *Code of hygienic practice for low moisture foods* (CXC 75-2015)⁵ and other relevant Codex texts such as codes of hygienic practice and codes of practice.

The products should comply with any microbiological criteria established in accordance with the *Principles and guidelines for the establishment and application of microbiological criteria related to foods* (CXG 21-1997).⁶

5 Labelling

In addition to the requirements of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985),⁷ the following declarations shall be made:

5.1 Name of the food

5.1.1

Products described under Section 2.1: “Chocolate types (composition)” and Section 2.2: “Chocolate types (forms)” of this standard and complying with the appropriate requirements of the relevant section shall be designated according to the name listed in Section 2: “Description and essential composition factors” under subsequent section and subject to the provisions under Section 5: “Labelling” of this standard. The products defined in Section 2.1.1: “Chocolate” may be described as “bittersweet chocolate”, “semi-sweet chocolate”, “dark chocolate” or “chocolat fondant”.

When sugars are fully or partly replaced by sweeteners, an appropriate declaration should be included in proximity of the sales designation of the chocolate, mentioning the presence of sweeteners. *Example:* “x chocolate with sweeteners”.

The use of vegetable fats in addition to cocoa butter in accordance with the provisions of Section 2: “Description and essential composition factors” shall be indicated on the label in association with the name and/or the representation of the product. The authorities having jurisdiction may prescribe the specific manner in which this declaration shall be made.

5.1.2 Filled chocolate

Products described under Section 2.2.2: “Filled chocolate” shall be designated “filled chocolate”, “X filled chocolate”, “chocolate with x filling” or “chocolate with x centre”, where “x” is descriptive of the nature of the filling.

The type of chocolate used in the external coating may be specified, whereby the designations used shall be the same as stated under Section 5.1.1 of this standard.

An appropriate statement shall inform the consumer about the nature of the centre.

5.1.3 A chocolate or praline

Products in a single mouthful size described under Section 2.2.3: “A chocolate or praline” of this standard shall be designated “a chocolate” or “praline”.

5.1.4 Assorted chocolates

Where the products described under Section 2.1: “Chocolate types (composition)” or Section 2.2: “Chocolate types (forms)” with exception of chocolate a la taza, chocolate familiar a la taza and chocolate para mesa are sold in assortments, the product name may be replaced by the words “assorted chocolates” or “assorted filled chocolates”, “assorted chocolate vermicelli”, etc. In that case, there shall be a single list of ingredients for all the products in the assortment or alternatively lists of ingredients by products.

5.1.5 Other information required

Any characterizing flavour, other than chocolate flavour, shall be in the designation of the product.

Ingredients, which are especially aromatic and characterize the product, shall form part of the name of the product (e.g. mocca chocolate).

5.1.6 Use of the term chocolate

Products not defined under this standard, and where the chocolate taste is solely derived from non-fat cocoa solids, can carry the term “chocolate” in their designations in accordance with the provisions or customs applicable in the country in which the product is sold to the final consumer and this to designate other products which cannot be confused with those defined in this standard.

5.2 Declaration of minimum cocoa content

When required by the authority having jurisdiction, products described under Section 2.1: “Chocolate types (composition)” of this standard, except for white chocolate, shall carry a declaration of cocoa solids. For the purpose of this declaration, the percentages declared shall be made on the chocolate part of the product after the deduction of the other permitted edible foodstuffs.

5.3 Labelling of non-retail containers

The labelling of non-retail containers should be in accordance with the *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).⁸

6 Methods of analysis and sampling

6.1 Determination of centre and coating of filled chocolate

All methods approved for the chocolate type used for the coating and those approved for the type of centre concerned.

6.2 Determination of non-cocoa butter vegetable fat in chocolate and chocolate products

The following methods of analysis are the best available at the present time. Further systematic improvement is required. Documentation identifying the type of commercial blends of non-cocoa butter vegetable fats used must be made available upon request by competent authorities.

6.2.1 Detection of non-cocoa butter vegetable fats in chocolate

Detecting sterol breakdown products in refined vegetable fats added to chocolate by method AOCS Ce 10/02 (02).

6.2.2 Quantitative determination of non-cocoa butter vegetable fatsⁱⁱ

Determination of the triacylglycerols (C50, C52, C54) present in cocoa butters and non-cocoa butter vegetable fats by GC-FID in the *Journal of American Oil Chemists' Society*.⁹ In milk chocolate, there is a need to correct for the milkfat.

- Interpretation:

When type of non-cocoa butter vegetable fat is known, the amount of non-cocoa butter vegetable fat is calculated according to the *Journal of American Oil Chemists' Society*.⁹

When type of non-cocoa butter vegetable fat is not known, the calculation is made according to the *Journal of American Oil Chemists' Society*.¹⁰

ii This method is intended to measure vegetable fats which are cocoa butter equivalents (CBE) i.e. SOS type triglycerides. Other vegetable fats can only be added in very limited amounts before they affect the physical properties of chocolate in a detrimental way. These can be determined by conventional methods i.e. fatty acid and triacylglycerol analyses.

6.3 Other determinations

Cocoa products and chocolate				
Commodity	Provision	Method	Principle	Type
Chocolate and chocolate products	Cocoa butter	AOAC 963.15 IOCCC 14	Gravimetry (Soxhlet extraction)	I
Chocolate and chocolate products	Fat-free cocoa solids	ICA No. 26 / AOAC 977.10 and AOAC 931.05	Calculation from moisture (Determined as water) and gravimetry	I
Chocolate and chocolate products	Fat-free milk solids (determined as milk protein)	ICA No. 26 and ICA No. 17 and ICA No. 13 / AOAC 977.10 and AOAC 955.04C and AOAC 939.02	Calculation from moisture content, and Titrimetry (Kjeldahl digestion) content of extracted and precipitated milk protein	I
Chocolate and chocolate products	Fat, total on dry basis	ICA No. 26 / AOAC 977.10 and AOAC 963.15	Calculation from moisture (Determined as water) and Gravimetry (Soxhlet extraction)	I
Chocolate and chocolate products	Milkfat	IOCCC 5 AOAC 945.34; 925.41B; 920.80	Titrimetry/Distillation	I
Chocolate and chocolate products	Moisture	IOCCC 26 or AOAC 977.10 (Karl Fischer method); or AOAC 931.04 or IOCCC 1	Gravimetry	I
Chocolate and chocolate products	Non-cocoa butter vegetable fat	See Section 6.2: "Determination of non-cocoa butter vegetable fat in chocolate and chocolate products"	See Section 6.2: "Determination of non-cocoa butter vegetable fat in chocolate and chocolate products"	I

Referenced texts

- 1 *General standard for food additives* (CXS 192-1995).
- 2 *Guidelines for the Use of Flavourings* (CXG 66-2008).
- 3 *Guidelines on substances used as processing aids* (CXG 75-2010).
- 4 *General principles of food hygiene* (CXC 1-1969).
- 5 *Code of hygienic practice for low moisture foods* (CXC 75-2015).
- 6 *Principles and guidelines for the establishment and application of microbiological criteria related to foods* (CXG 21-1997).
- 7 *General standard for the labelling of pre-packaged foods* (CXS 1-1985).
- 8 *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).
- 9 Padley, F. B. & Timms, R. E. 1980. The determination of cocoa butter equivalents in chocolate. *Journal of the American Oil Chemists' Society*. N. 57, 286-293.
- 10 Young, C.C. 1984. The interpretation of GLC triglyceride data for the determination of cocoa butter equivalents in chocolate: A new approach. *Journal of the American Oil Chemists' Society*. N. 61(3), 576-581.

Codex Alimentarius

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