CODEX ALIMENTARIUS
INTERNATIONAL FOOD STANDARDS

Food and Agriculture Organization of the United Nations
World Health Organization

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STANDARD FOR SWEETENED CONDENSED MILK

CXS 282-1971

Adopted in 1971. Revised in 1999. Amended in 2010, 2018, 2022, 2023.

2022 Amendments

Following decisions taken at the Forty-fifth Session of the Codex Alimentarius Commission in December 2022, amendments were made in Section 7.5 Labelling of non-retail containers.

2023 Amendments

Following decisions taken at the Forty-sixth Session of the Codex Alimentarius Commission in December 2023, the food additives provisions were amended in this standard and have been included in the *General standard for food additives* (GSFA) (CXS 192-1995)[1] in line with the process of alignment of all food additive provisions with the GSFA.

1. SCOPE

This standard (formerly Codex Stan A-4-1971) applies to sweetened condensed milk, intended for direct consumption or further processing, in conformity with the description in Section 2 of this standard.

2. DESCRIPTION

Sweetened condensed milk is a milk product which can be obtained by the partial removal of water from milk with the addition of sugar, or by any other process which leads to a product of the same composition and characteristics. The fat and/or protein content of the milk may have been adjusted, only to comply with the compositional requirements in Section 3 of this standard, by the addition and/or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw materials

Milk and milk powders,[i] cream and cream powders,[ii] milkfat products.[iii]

The following milk products are allowed for protein adjustment purposes:

- milk retentate: Milk retentate is the product obtained by concentrating milk protein by ultrafiltration of milk, partly skimmed milk, or skimmed milk;
- milk permeate: Milk permeate is the product obtained by removing milk proteins and milkfat from milk, partly skimmed milk, or skimmed milk by ultrafiltration; and
- lactose[iv] (also for seeding purposes).

3.2 Permitted ingredients

- potable water
- sugar
- sodium chloride

In this product, sugar is generally considered to be sucrose, but a combination of sucrose with other sugars, consistent with good manufacturing practice (GMP), may be used.

3.3 Composition

Sweetened condensed milk	
Minimum milkfat	8% m/m
Minimum milk solids[(a)]	28% m/m
Minimum milk protein in milk solids-not-fat[(a)]	34% m/m
Sweetened condensed skimmed milk	
Maximum milkfat	1% m/m
Minimum milk solids[(a)]	24% m/m
Minimum milk protein in milk solids-not-fat[(a)]	34% m/m
Sweetened condensed partly skimmed milk	
Milkfat	More than 1% and less than 8% m/m
Minimum milk solids-not-fat[(a)]	20% m/m
Minimum milk solids[(a)]	24% m/m
Minimum milk protein in milk solids-not-fat[(a)]	34% m/m
Sweetened condensed high-fat milk	
Minimum milkfat	16% m/m
Minimum milk solids-not-fat[(a)]	14% m/m
Minimum milk protein in milk solids-not-fat[(a)]	34% m/m

[(a)] The milk solids and milk solids-not-fat content includes water of crystallization of the lactose.

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[i] See *Standard for sugars* (CXS 212-1999).
[ii] See note above.
[iii] See note above.
[iv] See note above.

For all sweetened condensed milk, the amount of sugar is restricted by GMP to a minimum value which safeguards the keeping quality of the product and a maximum value above which crystallization of sugar, may occur.

4. FOOD ADDITIVES

Only those additive functional classes indicated as technologically justified in the table below may be used for the product category specified.

Acidity regulators used in accordance with Table 1 and Table 2 of the *General standard for food additives* (CXS 192-1995)[1] in food category 01.3.1 (Condensed milk [plain]) and only certain acidity regulators, emulsifiers, firming agents, stabilizers and thickeners, in Table 3 are acceptable for use in foods conforming to this standard.

Additive functional class	Justified use in sweetened condensed milk:
Acidity regulators	X
Emulsifiers	X
Firming agents	X
Stabilizers	X
Thickeners	X

X The use of additives belonging to the class is technologically justified.

5. CONTAMINANTS

The products covered by this standard shall comply with the maximum levels for contaminants that are specified for the product in the *General standard for contaminants and toxins in food and feed* (CXS 193-1995).[2]

The milk used in the manufacture of the products covered by this standard shall comply with the maximum levels for contaminants and toxins specified for milk by the *General standard for contaminants and toxins in food and feed* (CXS 193-1995)[2] and with the maximum residue limits for veterinary drug residues and pesticides established for milk by the Codex Alimentarius Commission.

6. 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),[3] the *Code of hygienic practice for milk and milk products* (CXC 57-2004)[4] 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).[5]

7. LABELLING

In addition to the provisions of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985)[6] and the *General standard for the use of dairy terms* (CXS 206-1999),[7] the following specific provisions apply:

7.1 Name of the food

The name of the food shall be:

Sweetened condensed milk

Sweetened condensed skimmed milk

Sweetened condensed partly skimmed milk

Sweetened condensed high-fat milk

According to the composition specified in Section 3

Sweetened condensed partly skimmed milk may be designated “sweetened condensed semi-skimmed milk” if the milkfat content is 4.0–4.5 percent and the minimum milk solids is 28 percent m/m.

7.2 Declaration of milkfat content

If the consumer would be misled by the omission, the milkfat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either (i) as a percentage by mass or volume, or (ii) in grams per serving as quantified in the label provided that the number of servings is stated.

7.3 Declaration of milk protein

If the consumer would be misled by the omission, the milk protein content shall be declared in a manner acceptable in the country of sale to the final consumer, either as (i) a percentage by mass or volume, or (ii) grams per serving as quantified in the label provided the number of servings is stated.

7.4 List of ingredients

Notwithstanding the provision of Section 4.2.1 of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985),[6] milk products used only for protein adjustment need not be declared.

7.5 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]

8. METHODS OF SAMPLING AND ANALYSIS

For checking the compliance with this standard, the methods of analysis and sampling contained in the *Recommended methods of analysis and sampling* (CXS 234-1999)[9] relevant to the provisions in this standard, shall be used.

NOTES

[1] FAO and WHO. 1995. *General standard for food additives.* Codex Alimentarius Standard, No. CXS 192-1995. Codex Alimentarius Commission. Rome.

[2] FAO and WHO. 1995. *General standard for contaminants and toxins in food and feed*. Codex Alimentarius Standard, No. CXS 193-1995. Codex Alimentarius Commission. Rome.

[3] FAO and WHO. 1969. *General principles of food hygiene*. Codex Alimentarius Code of Practice, No. CXC 1-1969. Codex Alimentarius Commission. Rome.

[4] FAO and WHO. 2004. *Code of hygienic practice for milk and milk products*. Codex Alimentarius Code of Practice, No. CXC 57-2004. Codex Alimentarius Commission. Rome.

[5] FAO and WHO. 1997. *Principles and guidelines for the establishment and application of microbiological criteria related to foods*. Codex Alimentarius Guideline, No. CXG 21-1997. Codex Alimentarius Commission. Rome.

[6] FAO and WHO. 1985. *General standard for the labelling of pre-packaged foods.* Codex Alimentarius Standard, No. CXS 1-1985. Codex Alimentarius Commission. Rome.

[7] FAO and WHO. 1999. *General standard for the use of dairy terms.* Codex Alimentarius Standard, No. CXS 206-1999. Codex Alimentarius Commission. Rome.

[8] FAO and WHO. 2021. *General standard for the labelling of non-retail containers of foods.* Codex Alimentarius Standard, No. CXS 346-2021. Codex Alimentarius Commission. Rome.

[9] FAO and WHO. 1999. *Recommended methods of analysis and sampling.* Codex Alimentarius Standard, No. CXS 234-1999. Codex Alimentarius Commission. Rome.