

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 CREAM CHEESE

CXS 275-1973

Formerly CODEX STAN C-31-1973. Adopted in 1973. Revised in 2007.

Amended in 2008, 2010, 2016, 2018.

1. SCOPE

This Standard applies to Cream Cheese intended for direct consumption or for further processing in conformity with the description in Section 2 of this Standard.

In some countries, the term “cream cheese” is used to designate cheeses, such as high fat ripened hard cheese, that do not conform to the description in Section 2. This Standard does not apply to such cheeses.

2. DESCRIPTION

Cream Cheese is a soft, spreadable, unripened and rindless¹ cheese in conformity with the *Group Standard for Unripened Cheese Including Fresh Cheese* (CXS 221-2001) and the *General Standard for Cheese* (CXS 283-1978). The cheese has a near white through to light yellow colour. The texture is spreadable and smooth to slightly flaky and without holes, and the cheese spreads and mixes readily with other foods.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw materials

Milk and/or products obtained from milk.

3.2 Permitted ingredients

- Starter cultures of harmless lactic acid and/ or flavour producing bacteria and cultures of other harmless micro-organisms;
- Rennet or other safe and suitable coagulating enzymes;
- Sodium chloride and potassium chloride as a salt substitute;
- Potable water;
- Safe and suitable processing aids;
- Gelatine and starches: These substances can be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice taking into account any use of the stabilizers/thickeners listed in Section 4;
- Vinegar.

3.3 Composition

| Milk constituent | Minimum content (m/m) | Maximum content (m/m) | Reference level (m/m) |
|-----------------------------|--------------------------|--------------------------|--------------------------|
| Milk fat in dry matter: | 25% | Not restricted | 60–70% |
| Moisture on fat free basis: | 67% | – | Not specified |
| Dry matter: | 22% | Restricted by the MFFB | Not specified |

Compositional modifications of Cream Cheese beyond the minima and maxima specified above for milkfat, moisture and dry matter are not considered to be in compliance with Section 4.3.3 of the *General Standard for the Use of Dairy Terms* (CXS 206-1999).

¹ The cheese has been kept in such a way that no rind is developed (a “rindless” cheese).

4. FOOD ADDITIVES

Only those additives classes indicated as justified in the table below may be used for the product categories specified. Within each additive class, and where permitted according to the table, only those food additives listed below may be used and only within the functions and limits specified.

| Additive functional class | Justified use | |
|---------------------------|------------------|------------------------|
| | Cheese mass | Surface/rind treatment |
| Colours: | X ^(a) | – |
| Bleaching agents: | – | – |
| Acidity regulators: | X | – |
| Stabilizers: | X ^(b) | – |
| Thickeners: | X ^(b) | – |
| Emulsifiers: | X | – |
| Antioxidants: | X | – |
| Preservatives: | X ^(b) | – |
| Foaming agents: | X ^(c) | – |
| Anticaking agents: | – | – |

- (a) Only to obtain the colour characteristics, as described in Section 2.
 (b) Stabilizers and thickeners including modified starches may be used in compliance with the definition of milk products and only to heat treated products to the extent they are functionally necessary, taking into account any use of gelatine and starches as provided for in Section 3.2.
 (c) For whipped products, only.
 X The use of additives belonging to the class is technologically justified.
 – The use of additives belonging to the class is not technologically justified.

| INS no. | Name of additive | Maximum level |
|---------------------------|-----------------------------|--|
| Preservatives | | |
| 200 | Sorbic acid | 1 000 mg/kg singly or in combination as sorbic acid |
| 202 | Potassium sorbate | |
| 203 | Calcium sorbate | |
| 234 | Nisin | 12.5 mg/kg |
| 280 | Propionic acid | Limited by GMP |
| 281 | Sodium propionate | |
| 282 | Calcium propionate | |
| 283 | Potassium propionate | |
| Acidity regulators | | |
| 170(i) | Calcium carbonate | Limited by GMP |
| 260 | Acetic acid, glacial | Limited by GMP |
| 261(i) | Potassium acetate | Limited by GMP |
| 261(ii) | Potassium diacetate | Limited by GMP |
| 262(i) | Sodium acetate | Limited by GMP |
| 263 | Calcium acetate | Limited by GMP |
| 270 | Lactic acid, L-, D- and DL- | Limited by GMP |
| 296 | Malic acid, DL- | Limited by GMP |

| INS no. | Name of additive | Maximum level |
|--------------------|--------------------------------|---|
| 325 | Sodium lactate | Limited by GMP |
| 326 | Potassium lactate | Limited by GMP |
| 327 | Calcium lactate | Limited by GMP |
| 330 | Citric acid | Limited by GMP |
| 331(i) | Sodium dihydrogen citrate | Limited by GMP |
| 332(i) | Potassium dihydrogen citrate | Limited by GMP |
| 333 | Calcium citrates | Limited by GMP |
| 334 | Tartaric acid, L(+)- | 1500 mg/kg singly or in combination as tartaric acid |
| 335(ii) | Sodium L(+)-tartrate | |
| 337 | Potassium sodium L(+)-tartrate | |
| 338 | Phosphoric acid | 880 mg/kg as phosphorous |
| 350(i) | Sodium hydrogen DL-malate | Limited by GMP |
| 350(ii) | Sodium DL-malate | Limited by GMP |
| 352(ii) | Calcium malate, D, L- | Limited by GMP |
| 500(i) | Sodium carbonate | Limited by GMP |
| 500(ii) | Sodium hydrogen carbonate | Limited by GMP |
| 500(iii) | Sodium sesquicarbonate | Limited by GMP |
| 501(i) | Potassium carbonate | Limited by GMP |
| 501(ii) | Potassium hydrogen carbonate | Limited by GMP |
| 504(i) | Magnesium carbonate | Limited by GMP |
| 504(ii) | Magnesium hydrogen carbonate | Limited by GMP |
| 507 | Hydrochloric acid | Limited by GMP |
| 575 | Glucono-delta-lactone | Limited by GMP |
| 577 | Potassium gluconate | Limited by GMP |
| 578 | Calcium gluconate | Limited by GMP |
| Stabilizers | | |
| 339(i) | Sodium dihydrogen phosphate | 4 400 mg/kg singly or in combination, expressed as phosphorus |
| 339(ii) | Disodium hydrogen phosphate | |
| 339(iii) | Trisodium phosphate | |
| 340(i) | Potassium dihydrogen phosphate | |
| 340(ii) | Dipotassium hydrogen phosphate | |
| 340(iii) | Tripotassium phosphate | |
| 341(i) | Calcium dihydrogen phosphate | |
| 341(ii) | Calcium hydrogen phosphate | |
| 341(iii) | Tricalcium orthophosphate | |
| 342(i) | Ammonium dihydrogen phosphate | |
| 342(ii) | Diammoniumhydrogen phosphate | |
| 343(ii) | Magnesium hydrogen phosphate | |

| INS no. | Name of additive | Maximum level |
|----------------|--|----------------------|
| 343(iii) | Trimagnesium phosphate | |
| 450(i) | Disodium diphosphate | |
| 450(iii) | Tetrasodium diphosphate | |
| 450(v) | Tetrapotassium diphosphate | |
| 450(vi) | Dicalcium diphosphate | |
| 451(i) | Pentasodium triphosphate | |
| 451(ii) | Pentapotassium triphosphate | |
| 452(i) | Sodium polyphosphate | |
| 452(ii) | Potassium polyphosphate | |
| 452(iv) | Calcium polyphosphate | |
| 452(v) | Ammonium polyphosphate | |
| 400 | Alginic acid | Limited by GMP |
| 401 | Sodium alginate | Limited by GMP |
| 402 | Potassium alginate | Limited by GMP |
| 403 | Ammonium alginate | Limited by GMP |
| 404 | Calcium alginate | Limited by GMP |
| 405 | Propylene glycol alginate | 5 000 mg/kg |
| 406 | Agar | Limited by GMP |
| 407 | Carrageenan | Limited by GMP |
| 407a | Processed euchema seaweed (PES) | Limited by GMP |
| 410 | Carob bean gum | Limited by GMP |
| 412 | Guar gum | Limited by GMP |
| 413 | Tragacanth gum | Limited by GMP |
| 415 | Xanthan gum | Limited by GMP |
| 416 | Karaya gum | Limited by GMP |
| 417 | Tara gum | Limited by GMP |
| 418 | Gellan gum | Limited by GMP |
| 466 | Sodium carboxymethyl cellulose (Cellulose gum) | Limited by GMP |
| 1400 | Dextrins, roasted starch | Limited by GMP |
| 1401 | Acid-treated starch | Limited by GMP |
| 1402 | Alkaline treated starch | Limited by GMP |
| 1403 | Bleached starch | Limited by GMP |
| 1404 | Oxidized starch | Limited by GMP |
| 1405 | Starches, enzyme-treated | Limited by GMP |
| 1410 | Monostarch phosphate | Limited by GMP |
| 1412 | Distarch phosphate | Limited by GMP |
| 1413 | Phosphateddistarch phosphate | Limited by GMP |
| 1414 | Acetylated distarch phosphate | Limited by GMP |

| INS no. | Name of additive | Maximum level |
|----------------------|---|--|
| 1420 | Starch acetate | Limited by GMP |
| 1422 | Acetylated distarchadipate | Limited by GMP |
| 1440 | Hydroxypropyl starch | Limited by GMP |
| 1442 | Hydroxypropyldistarch phosphate | Limited by GMP |
| Emulsifiers | | |
| 322 | Lecithins | Limited by GMP |
| 470(i) | Salt of myristic, palmitic and stearic acids wit ammonia, calcium, potassium and sodium | Limited by GMP |
| 470(ii) | Salt of oleic acid with calcium, potassium and sodium | Limited by GMP |
| 471 | Mono- and di-glycerides of fatty acids | Limited by GMP |
| 472a | Acetic and fatty acid esters of glycerol | Limited by GMP |
| 472b | Lactic and fatty acid esters of glycerol | Limited by GMP |
| 472c | Citric and fatty acid esters of glycerol | Limited by GMP |
| 472e | Diacetyltartaric and fatty acid esters of glycerol | 10 000 mg/kg |
| Antioxidants | | |
| 300 | Ascorbic acid, L- | Limited by GMP |
| 301 | Sodium ascorbate | Limited by GMP |
| 302 | Calcium ascorbate | Limited by GMP |
| 304 | Ascorbyl palmitate | 500 mg/kg singly or in combination as ascorbyl stearate |
| 305 | Ascorbyl stearate | |
| 307b | Tocopherol concentrate, mixed | 200 mg/kg singly or in combination |
| 307c | Tocopherol, dl- <i>alpha</i> - | |
| Colours | | |
| 160a(i) | Carotene, <i>beta</i> -, synthetic | 35 mg/kg singly or in combination |
| 160a(iii) | Carotene , <i>beta</i> -, <i>Blakesleatrispora</i> | |
| 160e | Carotenal, <i>beta</i> -apo-8'- | |
| 160f | Carotenoicacid, ethylester, <i>beta</i> -apo-8'- | |
| 160a(ii) | Carotenes, <i>beta</i> -,vegetable | 600 mg/kg |
| 160b(ii) | Annatto extracts – norbixin based | 25 mg/kg |
| 171 | Titanium dioxide | Limited by GMP |
| Foaming agent | | |
| 290 | Carbon dioxide | Limited by GMP |
| 941 | Nitrogen | Limited by GMP |

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).

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) and with the maximum residue limits for veterinary drug residues and pesticides established for milk by the CAC.

6. HYGIENE

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), the *Code of Hygienic Practice for Milk and Milk Products* (CXC 57-2004) 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).

7. LABELLING

In addition to the provisions of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985) and the *General Standard for the Use of Dairy Terms* (CXS 206-1999), the following specific provisions apply:

7.1 Name of the food

The name Cream Cheese may be applied in accordance with Section 4.1 of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985), provided that the product is in conformity with this Standard. Where customary in the country of retail sale, alternative spelling may be used. The name may be translated into other languages so that the consumer in the country of retail sale will not be misled.

The use of the name is an option that may be chosen only if the cheese complies with this Standard. Where the name is not used for a cheese that complies with this Standard, the naming provisions of the *General Standard for Cheese* (CXS 283-1978) apply.

The designation of products in which the fat content is below or above the reference range but equal to or above 40% fat in dry matter as specified in Section 3.3 of this Standard shall be accompanied by an appropriate qualification describing the modification made or the fat content (expressed as fat in dry matter or as percentage by mass whichever is acceptable in the country of retail sale), either as part of the name or in a prominent position in the same field of vision. The designation of products in which the fat content is below 40% fat in dry matter but above the absolute minimum specified in Section 3.3 of this Standard shall *either* be accompanied by an appropriate qualifier describing the modification made or the fat content (expressed as fat in dry matter or as percentage by mass), either as part of the name or in a prominent position in the same field of vision, *or alternatively* the name specified in the national legislation of the country in which the product is manufactured and/or sold or with a name existing by common usage, in either case provided that the designation used does not create an erroneous impression the retail sale regarding the character and identity of the cheese.

Suitable qualifiers are the appropriate characterizing terms specified in Section 7.3 of the *General Standard for Cheese* (CXS 283-1978) or a nutritional claim in accordance with the *Guidelines for Use of Nutrition and Health Claims* (CXG 23-1997)².

7.2 Country of origin

The country of origin (which means the country of manufacture, not the country in which the name originated) shall be declared. When the product undergoes substantial transformation³ in a second country, the country in which the transformation is performed shall be considered to be the country of origin for the purpose of labelling.

² For the purpose of comparative nutritional claims, the minimum fat content of 60% fat in dry matter constitutes the reference.

³ For instance, repackaging, cutting, slicing, shredding and grating is not regarded as substantial transformation.

7.3 Declaration of milkfat content

The milk fat content shall be declared in a manner found acceptable in the country of retail sale, either (i) as a percentage by mass, (ii) as a percentage of fat in dry matter, or (iii) in grams per serving as quantified in the label, provided that the number of servings is stated.

7.4 Labelling of non-retail containers

Information specified in Section 7 of this Standard and Sections 4.1 to 4.8 of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985) and, if necessary, storage instructions, shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name of the manufacturer or packer shall appear on the container, and in the absence of such a container, on the product itself. However, lot identification and the name and address may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

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) relevant to the provisions in this Standard, shall be used.