

# CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture  
Organization of  
the United Nations



World Health  
Organization

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## STANDARD FOR MILKFAT PRODUCTS

CXS 280-1973

Formerly CODEX STAN A-2-1973. Adopted in 1973. Revised in 1999.

Amended in 2006, 2010, 2018, 2022.

### 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	Text in previous version	Text in amended version
4	Section 7.2 Labelling of non-retail containers	Information required 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 and address of the manufacturer or packer shall appear on the container. However, lot identification, and the name and address of the manufacturer or packer 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).

## 1. SCOPE

This standard applies to Anhydrous Milkfat, Milkfat, Anhydrous Butter oil, Butter oil and Ghee, which are intended for further processing or culinary use, in conformity with the description in Section 2 of this standard.

## 2. DESCRIPTION

**2.1 *Anhydrous Milkfat, Milkfat, Anhydrous Butter oil and Butter oil*** are fatty products derived exclusively from milk and/or products obtained from milk by means of processes which result in almost total removal of water and non-fat solids.

**2.2 *Ghee*** is a product exclusively obtained from milk, cream or butter, by means of processes which result in almost total removal of water and non-fat solids, with an especially developed flavour and physical structure.

## 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 producing bacteria.

### 3.3 Composition

	<b>Anhydrous milkfat/ Anhydrous butter oil</b>	<b>Milkfat</b>	<b>Butter oil</b>	<b>Ghee</b>
Minimum milkfat (% m/m)	99.8	99.6	99.6	99.6
Maximum water (% m/m)	0.1	–	–	–

## 4. FOOD ADDITIVES

Food additives listed in Tables 1 and 2 of the *General Standard for Food Additives* (CXS 192-1995) in Food Category 02.1.1 (Butter oil, anhydrous milkfat, ghee) may be used in foods subject to this standard.

**4.1** Inert gas with which airtight containers are flushed before, during and after filling with product.

## 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 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), 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 Pre-packaged 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 of the food shall be:

Anhydrous milkfat

Milkfat

Anhydrous butter oil

Butter oil

Ghee

According to description specified in Section 2, composition specified in 3 and the use of antioxidants (see Section 4).

### 7.2 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. 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.

**APPENDIX – ADDITIONAL INFORMATION**

The additional information below does not affect the provisions in the preceding sections which are those that are essential to the product identity, the use of the name of the food and the safety of the food.

**1. OTHER QUALITY FACTORS**

	<b>Anhydrous milkfat/ Anhydrous butter oil</b>	<b>Milkfat</b>	<b>Butter oil</b>	<b>Ghee</b>
Maximum free fatty acids (% m/m as oleic acid)	0.3	0.4	0.4	0.4
Maximum peroxide value (milli-equivalents of oxygen/kg fat)	0.3	0.6	0.6	0.6
Taste and odour	Acceptable for market requirements after heating a sample to 40–45°C			
Texture	Smooth and fine granules to liquid, depending on temperature			

**2. OTHER CONTAMINANTS****Heavy metals**

The following limits apply to Anhydrous Milkfat, Milkfat, Anhydrous Butter oil and Butter oil and Ghee:

**Metal    Maximum level**

Copper    0.05 mg/kg

Iron        0.2 mg/kg

**3. OTHER METHODS OF ANALYSIS**

See CXS 234-1999.