CODEX STANDARD FOR MILK POWDERS AND CREAM POWDER[1]

CODEX STAN 207-1999

The Annex to this Standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A(I)(b) of the General Principles of the Codex Alimentarius.

1   SCOPE

This Standard applies to milk powders and cream powder, intended for direct consumption or further processing, in conformity with the description in Section 2 of this Standard.

2   DESCRIPTION

Milk powders and cream powder are milk products which can be obtained by the partial removal of water from milk or cream. The fat and/or protein content of the milk or cream 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 & QUALITY FACTORS

3.1   RAW MATERIALS

Milk and cream

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 *.

*   For specification, see relevant Codex standard

3.2   COMPOSITION

Cream powder

Minimum milkfat	42% m/m
Maximum water**	5% m/m
Minimum milk protein in milk solids-not-fat**	34% m/m

Whole milk powder

Milkfat	Minimum 26% and less than 42 % m/m
Maximum water**	5% m/m
Minimum milk protein in milk solids-not-fat**	34% m/m

Partly skimmed milk powder

Milkfat	More than 1.5% and less than 26% m/m
Maximum water**	5% m/m
Minimum milk protein in milk solids-not-fat**	34% m/m

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[1]   This Standard replaced the Standard for Whole Milk Powder, Partly Skimmed Milk Powder and Skimmed Milk Powder (A-5-1971) and the Standard for Cream Powder, Half Cream Powder and High Fat Milk Powder (A-10-1971).

Skimmed milk powder

Maximum milkfat	1.5% m/m
Maximum water**	5% m/m
Minimum milk protein in milk solids-not-fat**	34% m/m

** The water content does not include water of crystallization of the lactose; the milk solids-not-fat content includes water of crystallization of the lactose.

4   FOOD ADDITIVES

Only those food additives listed below may be used and only within the limits specified.

INS No.	Name	Maximum Level
	Stabilizers	
331	Sodium citrates	) 5 g/kg singly or in combination,
332	Potassium citrates	) expressed as anhydrous substances
	Firming agents	
508	Potassium chloride	Limited by GMP
509	Calcium chloride	Limited by GMP
	Acidity Regulators	
339	Sodium phosphates	) 5 g/kg singly or in combination
		) expressed as anhydrous substances
		)
		)
		)
		)
		)
340	Potassium phosphates	
450	Diphosphates	
451	Triphosphates	
452	Polyphosphates	
500	Sodium carbonates	
501	Potassium carbonates	
	Emulsifiers	
322	Lecithins (or phospholipids from natural sources)	Limited by GMP
471	Mono- and diglycerides of fatty acids	2.5 g/kg

Anti-caking Agents

170(i)	Calcium carbonate	)	10 g/kg singly or in combination
		)	
		)	
		)	
		)	
		)	
		)	
		)	
		)	
		)	
		)	
341(iii)	Tricalcium orthophosphate		
343(iii)	Trimagnesium orthophosphate		
504(i)	Magnesium carbonate		
530	Magnesium oxide		
551	Silicon dioxide, amorphous		
552	Calcium silicate		
553	Magnesium silicates		
554	Sodium aluminosilicate		
556	Calcium aluminium silicate		
559	Aluminium silicate		

Antioxidants

300	L-Ascorbic acid	)	0.5 g/kg expressed as ascorbic acid
		)	
		)	
301	Sodium ascorbate		
304	Ascorbyl palmitate		
320	Butylated hydroxyanisole (BHA)	0.01% m/m	

5   CONTAMINANTS

5.1   HEAVY METALS

The products covered by this Standard shall comply with the maximum limits established by the Codex Alimentarius Commission.

5.2   PESTICIDE RESIDUES

The products covered by this Standard shall comply with the maximum residue limits established by the Codex Alimentarius Commission.

6   HYGIENE

6.1   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 Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev.3-1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2   From raw material production to the point of consumption, the products covered by this standard should be subject to a combination of control measures, which may include, for example, pasteurization, and these should be shown to achieve the appropriate level of public health protection.

6.3   The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

7   LABELLING

In addition to the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev.1-1991; *Codex Alimentarius,* Volume 1A) and the General Standard for the Use of Dairy Terms (CODEX STAN 206-1999), the following specific provisions apply:

7.1   NAME OF THE FOOD

The name of the food shall be:

Cream powder	)	according to the composition in Section 3.2
	)	
	)	
	)	
Whole milk powder		
Partly skimmed milk powder		
Skimmed milk powder		

Partly skimmed milk powder may be designated "Semi-skimmed milk powder" provided that the content of milkfat does not exceed 16% m/m and is not less than 14% m/m.

If allowed by national legislation or otherwise identified to the consumer in the country where the product is sold, "whole milk powder" may be designated "full cream milk powder" and "skimmed milk powder" may be designated "low fat milk powder".

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 (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 (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 Prepackaged Foods (CODEX STAN 1-1985, Rev.1-1991; *Codex Alimentarius,* Volume 1A), milk products used only for protein adjustment need not be declared.

7.5   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 (CODEX STAN 1-1985, Rev.1-1991; *Codex Alimentarius,* Volume 1A), 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.

8   METHODS OF SAMPLING & ANALYSIS

See *Codex Alimentarius*, Volume 13.

ANNEX

This text is intended for voluntary application by commercial partners and not for application by governments.

Additional Quality Factors

Requirements	Whole milk powder	Partially skimmed milk powder	Skimmed milk powder	Method
Titratable acidity (ml-0.1 N NaOH/ 10 g-solids-not-fat)	max 18.0	max 18.0	max 18.0	IDF Standard 86:1981 IDF Standard 81:1981
Scorched particles	max Disc B	max Disc B	max Disc B	IDF Standard 107A:1995
Solubility index (ml)	max 1.0	max 1.0	max 1.0	IDF Standard 129A:1988