

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 4(c)

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON MILK AND MILK PRODUCTS

Sixth Session

Auckland, New Zealand, 26 – 30 April 2004

PROPOSED DRAFT REVISED STANDARD FOR DAIRY SPREADS

(Prepared by the European Commission with the assistance of France, Ireland, Germany, New Zealand, Switzerland, United Kingdom)

Governments and international organizations wishing to submit comments at Step 3 on the "Proposed draft Standard for Dairy Spreads" (see Annexe) are invited to do so **no later than 19 March 2004** to: Codex Committee on Milk and Milk Products, New Zealand Food Safety Authority, 68 - 86 Jervois Quay, P.O. Box 2835, Wellington, New Zealand (Facsimile: +64 4 463 2583 or E-mail: daniel.herd@nzfsa.govt.nz), with a copy to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Via delle Terme di Caracalla, 00100 Rome, Italy (Fax No + 39.06.5705.4593; E-mail: codex@fao.org).

At the 5th Session of the Codex Committee on Milk and Milk Products (Wellington, 8-12 April 2002) the Committee agreed to return the Proposed Draft Revised Standard for Dairy Spreads back to Step 2 for revision by a drafting Group. Furthermore, it was agreed that the Group is led by the European Commission with the assistance of Argentina, France, Germany, Ireland, Italy, New Zealand, Switzerland and the United Kingdom (paragraph 99 in Alinorm 03/11).

A "revised" text of the Proposed Draft Standard for Dairy Spreads, which has been redrafted by the European Commission, was sent to the Drafting Group Members with a request for their observations. The European Commission received comments from France, Ireland, Germany, New Zealand, Switzerland and the United Kingdom. Ireland was in agreement with the proposed text.

Many comments received are now incorporated in the Proposed Draft Standard for Dairy Spreads. As there were diverging and/or opposite comments from different Drafting Group members, not all of them could be accommodated.

PROPOSED DRAFT REVISED STANDARD FOR DAIRY SPREADS

(at Step 3)

1. SCOPE

This Standard applies to dairy spreads with a milk-fat content of less than 80% and not less than 10% intended for human consumption. This Standard shall apply to products which remain solid at a temperature of 20 °C, and which are suitable for use as spreads.

2. DESCRIPTION

Products in the form of a solid, malleable emulsion, principally of the water-in-oil type, derived exclusively from milk and/or certain milk products, for which the milk-fat is the essential constituent of value. However, other substances necessary for their manufacture may be added, provided those substances are not used for the purpose of replacing, either in whole or in part, any milk constituents.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1. Raw materials

Milk and/or products obtained from milk

3.2 Permitted Ingredients

- Sodium chloride and food grade salt
- Starter cultures of harmless lactic acid and/or flavour producing bacteria
- Potable water
- [Vitamins, in accordance with the Codex General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 09-1987)]*
- Gelatine and starches

These substances can be used in the same function as stabilizers and thickeners, 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

- Sugar
- Mono-, di-, oligo- and polysaccharides (including inulin) and malto-dextrins.

[*Where allowed in accordance with the General Principles, maximum and minimum levels for vitamins A, D and other vitamins, where appropriate, should be laid down by national legislation in accordance with the needs of each individual country including, where appropriate, the prohibition of the use of particular vitamins.]

3.3 Composition - The final draft shall include only one of these two options:

First option: (the option preferred by European Commission)

3.3.1 Three-quarter-fat butter

The product with a milk-fat content of not less than 60 % but not more than 62 %

Dairy Spreads**3.3.2** Half-fat butter

The product with a milk-fat content of not less than 39 % but not more than 41 %

3.3.3 Dairy spread X % milk-fat

The product with the following milk-fat contents:

- more than 10 % but less than 39 %,
- more than 41 % but less than 60 %,
- more than 62 % but less than 80 %

Second option: (a compromise option)**Dairy spreads X% milk-fat ¹ < 80%**

The milk-fat content must be at least two-thirds of the dry matter excluding salt.

4. FOOD ADDITIVES

Only those additive classes indicated 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 individual additives listed may be used and only within the limits specified.

Additive class:	Fat content		
	60% to less than 80%	39% to less than 60%	10% to less than 39%
Colours	X	X	X
Acidity regulators	X	X	X
Emulsifiers	-	X	X
Preservatives	-	X	X
Thickeners and stabilizers	-	X	X
Antioxidants	-	X	X
Antioxidant synergists	-	X	X
Antifoaming agents	-	-	X
Flavour enhancers	-	-	X
Natural flavours	-	-	X
Miscellaneous	-	-	X

X = technologically justified function.

- = no technologically justified function

¹ The terms “three-quarter-fat butter” and “half-fat butter” may, in some cases, be used in the name of the food as provided for in section 7.1.

Dairy Spreads

INS No.	Name of Food Additive	Maximum level
Colours		
<u>For all products:</u>		
160a(i)	160a(i) β -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	Annatto extracts	10 mg/kg, expressed on bixin/norbixin basis
Acidity Regulators		
<u>For all products</u>		
339	Sodium orthophosphates	2 g/kg
500(i)	Sodium carbonate	Limited by GMP
500(ii)	Sodium hydrogen carbonate	
524	Sodium hydroxide	
526	Calcium hydroxide	
<u>Additionally, for products with less than 39% fat</u>		
260	Acetic acid	Limited by GMP
261	Potassium acetate	
262 (i)	Sodium acetate	
263	Calcium acetate	
270	Lactic acid (L-, D- and DL-)	
325	Sodium lactate	
326	Potassium lactate	
327	Calcium lactate	
330	Citric acid	
331	Sodium citrates	
331 (i)	Sodium dihydrogen citrate	
331 (iii)	Trisodium citrate	
332	Potassium citrate	
333	Calcium citrate	
334	Tartaric acid	
335	Sodium tartrates	
335 (i)	Monosodium tartrate	
335 (ii)	Disodium tartrate	
336	Potassium tartrate	
337	Sodium potassium tartrate	
338	Orthophosphoric acid	5 g/kg
339	Sodium orthophosphates	
340	Potassium phosphates	
341	Calcium orthophosphate	
Emulsifiers		
<u>For products with less than 60% fat</u>		
322	Lecithins	Limited by GMP
432	Polyoxyethylene (20) sorbitan:	10 g/kg singly or in combination for baking purposes only
433	Monolaurate	
434	Mono-oleate	
435	Monopalmitate	
436	Tristearate	
452(i)	Sodium polyphosphate	5 g/kg
452(ii)	Potassium polyphosphate	
471	Mono- and di-glycerides of fatty acids	Limited by GMP
472(a)	Acetic and fatty acid esters of glycerol	

Dairy Spreads

INS No.	Name of Food Additive	Maximum level
Colours		
<u>For all products:</u>		
160a(i)	160a(i) β -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	Annatto extracts	10 mg/kg, expressed on bixin/norbixin basis
Acidity Regulators		
<u>For all products</u>		
339	Sodium orthophosphates	2 g/kg
500(i)	Sodium carbonate	Limited by GMP
500(ii)	Sodium hydrogen carbonate	
524	Sodium hydroxide	
526	Calcium hydroxide	
472(b)	Lactic and fatty acid esters of glycerol	
472(c)	Citric and fatty acid esters of glycerol	
472(d)	Tartaric acid esters of mono- and di-glycerides of fatty acids	10 g/kg for baking purposes only
472(e)	Diacetyltartaric and fatty acid esters of glycerol	
472(f)	Mixed tartaric, acetic and fatty acid esters of glycerol	5 g/kg
473	Sucrose esters of fatty acids	
474	Sucroglycerides	10 g/kg for baking purposes only
475	Polyglycerol esters of fatty acids	
477	Propylene glycol esters of fatty acids	10 g/kg singly or in combination
481	Sodium lactylates	
481 (i)	Sodium stearyl lactylate	
482	Calcium lactylates	
482 (i)	Calcium stearyl lactylate	
491	Sorbitan monostearate	10 g/kg singly or in combination
492	Sorbitan tristearate	
493	Sorbitan monolaurate	
494	Sorbitan monooleate	
495	Sorbitan monopalmitate	
<u>Additionally, for products with less than 39% fat</u>		
476	Polyglycerol esters of interesterified riconoleic acid	4 g/kg
Preservatives		
<u>For products with less than 60% fat</u>		
200	Sorbic acid	2,000 mg/kg singly or in combination (as sorbic acid) for products with a fat content of less than 60%
202	Potassium sorbate	
203	Calcium sorbate	
Thickeners and stabilizers		
<u>For products with less than 60% fat</u>		
339	Sodium orthophosphates	5 g/kg
400	Alginic acid	Limited by GMP
401	Sodium alginate	
402	Potassium alginate	
403	Ammonium alginate	
404	Calcium alginate	
405	Propylene glycol alginate	

Dairy Spreads

INS No.	Name of Food Additive	Maximum level
Colours		
<u>For all products:</u>		
160a(i)	160a(i) β -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	Annatto extracts	10 mg/kg, expressed on bixin/norbixin basis

Acidity RegulatorsFor all products

339	Sodium orthophosphates	2 g/kg
500(i)	Sodium carbonate	Limited by GMP
500(ii)	Sodium hydrogen carbonate	
524	Sodium hydroxide	
526	Calcium hydroxide	
406	Agar	
407 (i)	Carrageenan and its Na, K, NH ₄ salts (including furcellaran)	
410	Carob bean gum	
412	Guar Gum	
413	Tragacanth gum	
414	Gum arabic	
415	Xanthan gum	
418	Gellan gum	
422	Glycerol	
440	Pectins	
450 (i)	Disodium diphosphate	
460 (i)	Mycrocrystalline cellulose	
460 (ii)	Cellulose	
461	Methyl cellulose	
463	Hydroxypropyl cellulose	
464	Hydroxypropyl methyl cellulose	
465	Methyl ethyl cellulose	
466	Sodium carboxymethyl cellulose	
500 (i)	Sodium carbonates	
500(iii)	Sodium sesquicarbonate	

Modified starches, as follows

1400	Dextrine roasted starch	Limited by GMP
1401	Acid treated starch	
1402	Alkaline treated starch	
1403	Bleached starch	
1404	Oxidised starch	
1405	Enzyme treated starch	
1410	Monostarch phosphate	
1412	Distarch phosphate	
1413	Phosphated distarch phosphate	
1414	Acetylated distarch phosphate	
1420	Starch acetate ester. Acetic anhydride	
1422	Acetylated distarch adipate	
1440	Hydroxypropyl starch	
1442	Hydroxypropyl distarch phosphate	
	Starch acetate	
	Cellulose and microcrystalline cellulose	

Dairy Spreads

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Colours		
<u>For all products:</u>		
160a(i)	160a(i) β -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	Annatto extracts	10 mg/kg, expressed on bixin/norbixin basis
Acidity Regulators		
<u>For all products</u>		
339	Sodium orthophosphates	2 g/kg
500(i)	Sodium carbonate	Limited by GMP
500(ii)	Sodium hydrogen carbonate	
524	Sodium hydroxide	
526	Calcium hydroxide	
Antioxidants		
<u>For products with less than 60% fat</u>		
300	Ascorbic acid (L-)	Limited by GMP
301	Sodium ascorbate	
302	Calcium ascorbate	
304	Ascorbyl palmitate	
305	Ascorbyl stearate	500 mg/kg
306	Mixed tocopherols concentrate	Limited by GMP
307	Alpha-tocopherol	
Flavour enhancers		
<u>For products with less than 39% fat</u>		
508	Potassium chloride	Limited by GMP
509	Calcium chloride	
510	Ammonium chloride	
511	Magnesium chloride	
620	Glutamic acid	10 g/kg singly or in combination (as glutamic acid)
621	Monosodium glutamate	
622	Monopotassium glutamate	
623	Calcium diglutamate	
624	Monoammonium glutamate	
625	Magnesium diglutamate	
626	Guanylic acid	500 mg/kg singly or in combination (expressed as guanylic acid)
627	Sodium guanylate	
628	Potassium guanylate	
629	Calcium guanylate	
630	Inosinic acid	
Natural flavours		
<u>For products with less than 39% fat</u>		
	Natural flavours and their identical synthetic equivalents and other synthetic flavours, except those which are known to present a toxic hazard	Limited by GMP
Miscellaneous		
<u>For products with less than 39% fat</u>		
420	Sorbitol and sorbitol syrup	Limited by GMP
421	Mannitol	
953	Isomalt	
965	Maltitol	

INS No.	Name of Food Additive	Maximum level
Colours		
<u>For all products:</u>		
160a(i)	160a(i) β -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	Annatto extracts	10 mg/kg, expressed on bixin/norbixin basis
Acidity Regulators		
<u>For all products</u>		
339	Sodium orthophosphates	2 g/kg
500(i)	Sodium carbonate	Limited by GMP
500(ii)	Sodium hydrogen carbonate	
524	Sodium hydroxide	
526	Calcium hydroxide	
966	Lactitol	
967	Xylitol	Limited by GMP
290	Carbon dioxide	
941	Nitrogen	
942	Nitrous oxide	

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 It is important that control measures or a combination of control measures are applied at both primary production and processing level to minimise or prevent the microbiological, chemical or physical contamination of milk. These should be selected and applied 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).

Dairy Spreads**7. LABELLING**

In addition to provisions of the Codex General Standard for the Labelling of Pre-packaged Foods and the General Standard for the Use of Dairy Terms, the following information must be indicated in the labelling and presentation:

- (a) the sales description as defined in section 3.3;
- (b) the total percentage fat content by weight at the time of production;

7.1 Name of the food

7.1.1 The name of the food to be declared on the label shall be as specified in section 3.3

7.1.2 If in section 3.3 the option 2 is retained the draft should include the following paragraph:

Provided that the terms “three-quarter-fat butter” and “half-fat butter” are acceptable in the country of retail sale, these names may be used for the products with the following milk-fat contents:

- Three-quarter-fat butter for products with a milk-fat content of not less than 60 % but not more than 62 %
- Half-fat butter for products with a milk-fat content of not less than 39 % but not more than 41 %

7.1.3 In addition:

- (a) the term 'reduced-fat' may be used for products referred to in section 3.3 with a milk-fat content of more than 41 % but not more than 62 %;
- (b) the terms 'low-fat' or 'light' may be used for products referred to in section 3.3 with a milk-fat content of 41 % or less.

The term 'reduced-fat' and the terms 'low-fat' or 'light' may, however, replace respectively the terms 'three-quarter-fat' or 'half-fat'.

7.2 Declaration of milk fat content

7.2.1 The product shall be labelled to indicate average milk-fat content by mass in a manner found acceptable in the country of sale.

7.3 Labelling of Non-Retail Containers

Information on the above labelling requirements shall be given either on the container or in accompanying documents, except that the name of the food, 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 linked with the accompanying documents.

8. METHODS OF SAMPLING AND ANALYSIS

See Codex Alimentarius, Volume 13.

8.1 The measured fat content shall not deviate by more than two percentage points from the declared fat content.