

PROPOSED DRAFT STANDARD FOR FAT SPREADS AND BLENDED SPREADS
(At Step 3 of the Procedure)

1. SCOPE

This Standard applies to fat products, containing not less than 10% and not more than 90% fat, intended primarily for use as spreads. However, this Standard does not apply to fat spreads derived exclusively from milk and/or milk products to which only other substances necessary for their manufacture have been added. It only includes margarine and products used for similar purposes and excludes products with a fat content of less than 2/3 of the dry matter (excluding salt). Butter and dairy spreads are not covered by this Standard.

2. DESCRIPTION

2.1 Fat Spreads and Blended Spreads

The products covered by this Standard are foods in the form of an emulsion, principally of water and edible fats and oils, [and that is firm and spreadable at 20°C].

2.2 Edible Fats and Oils

“Edible fats and oils” means foodstuffs composed mainly of triglycerides of fatty acids. They are of vegetable or animal (including milk) or marine origin. They may contain small amounts of other lipids such as partial glycerides or phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in fat or oil. Fats of animal origin must, if originating from slaughtered animals, be obtained from animals in good health at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation. This includes fats and oils that have been subjected to processes of physical or chemical modification including fractionation, inter-esterification or hydrogenation.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

3.1.1 Fat Spreads

3.1.1.1 For these products, any milk fat content must be no more than 3% of the total fat content.

3.1.1.2 The fat content shall be as follows:

- | | | |
|-----|---|---|
| (a) | Margarine | 80% - 90% |
| (b) | Three-quarter fat margarine | [59% - 61%.] |
| (c) | Half fat margarine, minarine or halverine | [39% - 41%.] |
| (d) | Fat spreads | [any other product which meets the specifications in 3.1.1.1, subject to a minimum fat content of 10%.] |

3.1.2 Blended Spreads

3.1.2.1 The milk fat content of a blended spread must be more than 3% of the total fat content.

3.1.2.2 The fat content shall be as follows:

(a)	Blend	80 [-95%]
(b)	Three-quarter fat blend	59-61%
(c)	Half fat blend	39-41%
(d)	Blended spread	any other product which meets the specifications in 3.1.2.1., subject to a minimum fat content of 10%.

3.2. Permitted Ingredients

The following substances and products derived from them are permitted in the products covered by this standard, in addition to the basic constituents.

- Starter cultures of harmless lactic acid and/or flavour producing bacteria
- Vitamins (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.)
- Sodium chloride
- Egg yolk
- Edible proteins
- Sugars (i.e. any carbohydrate sweetening material)
- Gelatine
- Natural starches
- Milk and its constituents
- Mono-, di and oligosaccharides (including inulin) and malto-dextrins

4. **FOOD ADDITIVES**

4.1 **COLOURS**

		<u>Maximum Level</u>
100	(i) Curcumin or (ii) Turmeric	GMP
160a	(i) Beta-carotene	GMP
160b	Annatto extracts	10 mg/kg (calculated as total bixin or norbixin)
160e	Beta-apo-carotenal	25 mg/kg
160f	Beta-apo-8'-carotenoic acid, methyl or ethyl ester	25 mg/kg

4.2 **FLAVOURS**

Natural flavours and their identical synthetic equivalents and other synthetic flavours, except those which are known to present a toxic hazard.

4.3 EMULSIFIERS

		<u>Maximum Level</u>
322	Lecithins	GMP
	Polyoxyethylene (20) sorbitan:)
432	monolaurate)
433	mono-oleate)
434	monopalmitate	) 10 g/kg singly or in combination
435	monostearate)
436	tristearate)
471	Mono- and di-glycerides of fatty acids	GMP
472(a)	Acetic and fatty acid esters of glycerol)
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	) GMP
472(e)	Diacetyltartaric and fatty acid esters of glycerol)
472(f)	Mixed tartaric, acetic and fatty acid esters of glycerol)
473	Sucrose esters of fatty acids	10 g/kg
474	Sucroglycerides	10 g/kg
475	Polyglycerol esters of fatty acids	5 g/kg
476	Polyglycerol polyricinoleate	4 g/kg (for products containing < 41% fat only)
477	Propylene glycol esters of fatty acids	20 g/kg
479a	Thermally oxidised soya bean oil	4 g/kg
479b	Thermally oxidised soya bean oil interacted with mono and diglycerides of fatty acids	10 g/kg
481	Sodium lactylates)
	(i) sodium stearyl lactylate)
	(ii) sodium oleyl lactylate	) 10 g/kg singly or in combination
482	Calcium lactylates)
	(i) calcium stearyl lactylate)
	(ii) calcium oleyl lactylate)
491	Sorbitan monostearate)
492	Sorbitan tristearate)
493	Sorbitan monolaurate	) 10 g/kg
494	Sorbitan monooleate)
495	Sorbitan monopalmitate)

4.4 PRESERVATIVES

200	Sorbic acid	) 2,000 mg/kg singly or in combination
202	Potassium sorbate	) (as sorbic acid) for fat contents < 60%,
203	Calcium sorbate	) 1,000mg/kg singly or in combination (as sorbic acid) for fat contents > 60%
210	Benzoic acid)
211	Sodium benzoate	) 1,000 mg/kg singly or in combination
212	Potassium benzoate	) (as benzoic acid)
213	Calcium benzoate)

4.5 THICKENING AND STABILISING AGENTS

339	Na orthophosphate)	
400	Alginic acid)	
401	Sodium alginate)	
402	Potassium alginate)	
403	Ammonium alginate)	
404	Calcium alginate)	
405	Propylene glycol alginate)	
406	Agar)	
407	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)	
450a	Disodium diphosphate)	
461	Methyl cellulose)	
463	Hydroxypropyl cellulose)	
464	Hydroxypropyl methyl cellulose)	
465	Methyl ethyl cellulose)	
466	Sodium carboxymethyl cellulose)	
500	Sodium carbonates)	
500(iii)	Sodium sesquicarbonate)	
1400	Dextrine roasted starch	)	GMP
1401	Acid treated starch)	
1402	Alkaline treated starch)	
1403	Bleached starch)	
1404	Oxidised starch)	
1405	Enzyme treated starch)	
1410	Monostarch phosphate)	
1411	Distarch phosphate (Na Trimetaphosphate))	
1412	Distarch phosphate)	
1413	Phosphated distarch phosphate)	
1414	Acetylated distarch phosphate)	
1420	Starch acetate ester. Acetic anhydride)	
1421	Starch acetate ester. Vinyl acetate)	
1422	Acetylated distarch adipate)	
1440	Hydroxypropyl starch)	
1442	Hydroxypropyl distarch phosphate)	
	Pregelatinised starches)	
	Starch acetate	)	GMP
	Cellulose and microcrystalline cellulose)	

4.6 ACIDITY REGULATORS

260	Acetic acid)	
261	Potassium acetate)	
262	Sodium acetate)	
263	Calcium acetate)	
270	Lactic acid (L-, D- and DL-))	
325	Sodium lactate)	
326	Potassium lactate)	
327	Calcium lactate	)	GMP
330	Citric acid)	
331	Sodium citrates)	
	(i) Sodium dihydrogen citrate)	
	(ii) Disodium monohydrogen citrate)	
	(iii) Trisodium citrate)	
332	Potassium citrate)	
333	Calcium citrate)	
334	Tartaric acid)	
335	Sodium tartrates)	
	(i) Monosodium tartrate)	
	(ii) Disodium tartrate)	
336	Potassium tartrate)	
337	Sodium tartrate)	
339	Sodium phosphates)	
340	Potassium phosphates	)	GMP
341	Calcium orthophosphate)	
500(i)	Sodium carbonate)	
500(ii)	Sodium hydrogen carbonate)	
524	Sodium hydroxide)	
526	Calcium hydroxide)	
	Phosphoric acid)	
575	Glucono delta lactone)	

4.7 ANTIOXIDANTS

300	Ascorbic acid (L-))	
301	Sodium ascorbate)	
302	Calcium ascorbate	)	GMP
304	Ascorbyl palmitate)	
305	Ascorbyl stearate)	
306	Mixed tocopherols concentrate)	
307	Alpha-tocopherol	)	GMP
308	Synthetic gamma-tocopherol)	
309	Synthetic delta-tocopherol)	
310	Propyl gallate)	
319	Tertiary butyl hydroquinone (TBHQ)	)	200 mg/kg singly or in combination
320	Butylated hydroxyanisole (BHA))	
321	Butylated hydroxytoluene (BHT)	)	75 mg/kg
389	Dilauryl thiodipropionate)	
	Any combination of gallates, BHA and BHT providing limits for individual compounds are not exceeded.)	

4.8 ANTIOXIDANT SYNERGISTS

384	Isopropyl citrates)	100 mg/kg singly or in combination
	Monoglyceride citrate)	

	Calcium disodium EDTA	75 mg/kg
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4.9 ANTI-FOAMING AGENTS

900a	Polydimethylsiloxane	10 mg/kg
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4.10 FLAVOUR ENHANCERS

508	Potassium chloride)	
509	Calcium chloride)	GMP
510	Ammonium chloride)	
511	Magnesium chloride)	
620	Glutamic acid)	
621	Monosodium glutamate)	
622	Monopotassium glutamate	)	10 g/kg singly or in combination
623	Calcium diglutamate	)	(as glutamic acid)
624	Monoammonium glutamate)	
625	Magnesium diglutamate)	
626	Guanylic acid)	
627	Sodium guanylate)	
628	Potassium guanylate)	
629	Calcium guanylate)	
630	Inosinic acid	)	500 mg/kg singly or in combination
631	Disodium inosinate	)	(expressed as guanylic acid)
632	Dipotassium inosinate)	
633	Calcium inosinate)	
634	Calcium 5'-ribonucleotides)	
635	Disodium 5'-ribonucleotides)	
959	Neohesperidine dihydrochalcone		5 mg/kg

4.11 MISCELLANEOUS

		<u>Maximum Level</u>
290	Carbon dioxide	GMP
338	Orthophosphoric acid	GMP
405	Propylene glycol	GMP
420	Sorbitol and sorbitol syrup	GMP
421	Mannitol	GMP
551	Silicon dioxide amorphous	500 mg/kg
920	L-cysteine and its hydrochlorides- sodium and potassium salts	
938	Argon	GMP
941	Nitrogen	GMP
942	Nitrous oxide	GMP
953	Isomalt	GMP
965	Maltitol	GMP
966	Lactitol	GMP
967	Xylitol	GMP

5. CONTAMINANTS

5.1 Heavy metals

The products covered by the provisions of this Standard shall comply with maximum limits being established by the Codex Alimentarius Commission but in the meantime the following limits will apply:

Maximum permissible concentration

Lead (Pb)	0.1 mg/kg
Arsenic (As)	0.1 mg/kg

5.2 Pesticide residues

The products covered by the provisions of this Standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission for these commodities.

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 Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to the products.

6.2 To the extent possible in good manufacturing practice, the product shall be free from objectionable matter.

6.3 When tested by appropriate methods of sampling and examination, the product:

- shall be free from micro-organisms in amounts that may represent a hazard to human health;
- shall be free from parasites which may represent a hazard to human health; and
- shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to human health.

7. LABELLING

The product shall be labelled in accordance with the Codex General Standard for the Labelling of Pre-packaged Foods (Ref. CODEX STAN 1-1985, Rev. 1-1991; Codex Alimentarius, Volume 1A). The product designations should be translated into other languages in a meaningful way and not strictly word by word.

7.1 Name of the Food

The name of the food to be declared on the label shall be as specified in Sections 3.1.1 and 3.1.2. Where Codex Guidelines for the use of nutrition claims permit claims concerning the fat content of products covered by this Standard, these may be used, where appropriate, as alternatives to the terms, "three quarter" and "half".

7.2 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 identifiable with the accompanying documents.

7.3 Declaration of Fat Content

7.3.1 The product shall be labelled to indicate typical fat content in a manner found acceptable in the country of sale.

7.3.2 The milk fat content of blended spreads (3.1.2) shall be indicated in a manner that is clear and not misleading to the consumer.

8. **METHODS OF ANALYSIS AND SAMPLING**

8.1 Determination of lead

According to IUPAC 2.632, AOAC 994.02 or ISO 12193: 1994.

8.2 Determination of arsenic

According to AOAC 952.13, IUPAC 3.136, AOAC 942.17, or AOAC 985.16.

8.3 Determination of water, solids-non-fat and fat content

According to ISO 3727: 1977, AOAC 920.116 or IDF 80: 1977.

8.4 Determination of milk fat content

According to IUPAC 2.310, AOAC 990.27 or AOCS Ca 5c-87 (97).

8.5 Determination of salt content

According to IDF 12B : 1988, ISO CD 1738 or AOAC 960.29.

8.6 Determination of vitamin A content

According to AOAC 985.30.

8.7 Determination of vitamin D content

According to AOAC 981.17.

8.8 Determination of vitamin E content

According to IUPAC 2.432 or ISO 9936: 1997.