codex alimentarius commission



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS WORLD HEALTH ORGANIZATION



JOINT OFFICE: Viale delle Tenne di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarias.net Email: codex 0 fao.org Facsimile: 39 06 5705 4593

Agenda Item 4

CX/FO 03/4

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FATS AND OILS Eighteenth Session London, United Kingdom, 3 – 7 February 2003

DRAFT STANDARD FOR FAT SPREADS AND BLENDED SPREADS

COMMENTS AT STEP 6

The following comments have been received from Argentina, Canada, Cuba, Japan, Mexico, New Zealand, Poland, South Africa, United States of America, ACC, IDF, IFMA in response to CL 2002/21-FO.

ARGENTINA

In reply to the request for comments on the document CL 2002/21-FO on spreadable fats, the Argentinean Food Code establishes stipulations which conflict with the document, which obliges us to make the following points:

3.1.1.1. In the case of these products, milk fat content must be no higher than $\frac{3\%}{5\%}$ of total fat content. (The Argentinean Food Code allows for up to 5% of milk fat content)

4.4 PRESERVATIVES

200	Sorbic Acid	2000 mg/kg simple or mixed
202	Potassium Sorbate)	(as sorbic acid) for a fat
		content of <60%
203	Calcium Sorbate	1000 mg/kg simple or mixed (as sorbic acid) for a fat content of >60%

For margarine's the use of thickening agents, stabilisers, or flavour enhancers is not permitted.

Moreover, within the specifications of the Argentinean Food Code, there is a maximum melting point of 42°C for margarine's and 48°C for culinary margarine's.

CANADA

1. SCOPE

The upper limit of 90% would appear to be inconsistent with the requirement for margarine which states a minimum but no upper limit for fat content.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1.2 <u>Blended Spreads</u>

3.1.2.1 These are blended spreads containing more than 3% in which the milk fat is more than 3% of the total fat content. However a higher minimum percentage of milk fat may be specified in accordance with the requirements of the country of the retail sale.

This revision is suggested in order to clarify that the percentage is based on total fat content. It is Canada's opinion that there should be greater consistency between Section 3.1.1.1 and 3.1.2.2.

3.2 <u>Permitted Ingredients</u> (New Section)

Canada acknowledges the decision of the 17th Session of CCFO to delete the Section on "permitted ingredients", however given that this standard will replace the Codex Standard for Margarine (Codex Stan 32 - 1981), the Committee may wish to reconsider this decision. In order to ensure a measure of consistency with the current margarine standard, Canada recommends a revision to Section 3 by the addition of a new Section 3.2:

3.2.1 The following substances may be added to margarine:

Vitamins:	Vitamin A and its esters	
	Vitamin D	
	Vitamin E and its esters	
	Other vitamins	

Maximum and minimum levels for vitamins A, D and E and other vitamins 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

Sugars (any carbohydrate sweetening matter)

Suitable edible proteins

7. <u>Labelling</u>

7.1 <u>Naming the Food</u>

Canada suggests that the term "blended spread" is not meaningful to consumers in some countries and should be more specifically described on the label. The common name "fat spread" in 3.1.1 would be more meaningful if it was "(naming the fat(s)) spread". In 3.1.2 the common name "blended spread" would be more meaningful if the edible oils blended were included in the common name, such as "(naming the fat(s)) blended spread" or "(naming the fat spread(s)) blended spread" or "Blended (naming the fat spreads)". At a minimum, "blended fat spread" would be more meaningful.

Canada suggests adding a reference to Section 4.6.4 of the Codex Guidelines on the Use of Dairy Terms (Codex Stan 206). We suggest the following text (indicated by "redline"):

"7.1.1 In accordance with requirements acceptable in the country of retail sale, fat spreads defined in section 3.1.1.2 with a fat content of less than 80% may incorporate the term "margarine" in the name of the food, provided that the term is qualified to make clear the lower fat content. Fat spreads with a fat content of 39 to 41% may be designated as "Minarine" and "Halvarine". Furthermore, the name of the food containing milk fat must be consistent with the provisions of Section 4.6.4 of the Codex Guidelines on the Use of Dairy Terms (Codex Stan 206)".

8. Methods of Analysis and Sampling

Canada recommends methods AOAC 992.04 and JAOAC.63: 4, 1980 be included as acceptable methods of analysis for vitamin A..

CUBA

In Point 3, Essential composition and quality factors, only the fat content is dealt with and nothing is specified for its quality factors. The peroxide levels and microbiological state of the product, for instance, could be added, amongst other things.

JAPAN

Regarding title : 3.1.2 Blended Spreads

- (1) Blends and blended spreads are products, which were originally derived from margarines and fat spreads. Therefore, the word "blended margarine" should be used instead of "blend", and the word "blended fat spread" should be used instead of "blended spread".
- (2) There seems to be no rational reasons and merits in defining different types of "blended fat spreads" by their fat content at intermittent or discontinuous intervals, as it would only confuse consumers. Thus products with a fat content of 80 % or more should be defined as "blended margarine". Products with a fat content of less than 80 % should be defined as "blended fat spread", and these "blended fat spread" should have their fat content labeled on the product.
- (3) Bearing in mind above mentioned (1) and (2), we would like to propose a revised version on 3.1.2.2 as follows :

3.1.2.2 The fat content shall be as follows :

- (a) Blended margarine $\geq 80 \%$
- (b) Blended fat spread <80 % (actual fat content shall be labeled on the product)

MEXICO

We endorse the whole document.

NEW ZEALAND

It is rather confusing that 3.1.1 is titled 'Fat spreads' however sub clause 3.1.1.2(d) gives the fat content of 'Fat Spreads' to be <80%. Margarine is a sub category under 3.1.1 Fat Spreads, but does not meet the fat limits of a fat spread given in 3.1.1.2(d).

Similar confusion exists under 3.1.2 Blended spreads with sub clause 3.1.2.2(d) giving the fat for 'Blended Spreads with sub clauses 3.1.2.2(a), (b) and (c) under the heading 'Blended Spreads' have a different fat content.

There is a typo sub clause 3.1.1.2(d) should read 3.1.1.2(b).

POLAND

4.2. -we do not use synthetic flavours for spread and blended spread;

4.3. -we agree to use sucrose esters of fatty acids-473 no more than 5 mg/kg;

sucroglycerides -474 no more than 5 mg/kg; -polyglyceol polyricinoleate -476 only for products containing very low levels of fat. -we do not agree to use the following emulsifiers 432,433,434,435,436,479 -emulsifiers 432-436 we use only for baking fats;

-thermally oxidised soya bean oil interacted with mono and diglycerides of fatty acids

- 479 b can be use for frying purposes only.

4.4 -we do not use preservatives 210-213.

-we agree to use Na orthophosphate -339 and disodium diphospate -450(i) only in doses of 5 g/kg inproducts;

-we do not permit to use starch acetate ester - 1421;

-we suggest limited usage of phosphate compound.

-we do not agree to use phosphate compounds singly or in combination at a dose of 5g/kg infinal products calculate as P_2O_5 .

-we do not use tertiary butyl hydroquinone (TBHQ) -319 and diluaryl thioproprionate -389.

-we do not use iso propyl citrates -384 but calcium disodium EDTA -385 only to "minarine" in doses of no more than 100mg/kg.

-we do not agree to use propylene glycol -1520.

5.1. -according to our food legislation the amount of contaminants should be:

Pb no more than 0,10 mg/kg Cd no more than 0,02 mg/kg Hg no more than 0,01 mg/kg As no more than 0,10 mg/kg Cu no more than 0,30 mg/kg Fe no more than 1.50 mg/kg Ni no more than 0,20 mg/kg

SOUTH AFRICA

South Africa is generally satisfied with the classification and marking (quality) aspects of the Codex Standard. Our only question is concerning the naming used in 3.1.2.2. According to section 3.1.2.2 it would seem as if the naming, such as 'Three –quarter fat blend', Half fat blend, etc. are only applicable to blended fat spreads (3.1.2.). However in section 7.1 it is indicated that "Fat spreads with a fat content of 39 to 41% may be designated as 'Minarine' and 'Halvarine'. Are these names and fat percentages for blended fat spreads then applicable to fat spreads (3.1.1.) as well? This is not very clear.

Also, why does the % not flow from one to the other without gaps between the classifications for blended fat spreads?

UNITED STATES OF AMERICA

The United States respectfully submits the following comments in response to CL 2002/21- FO, Draft Standard for Fat Spreads and Blended Spreads. The Codex Standard for Margarine (32-1981, Rev. 1-1989) defines edible fats and oils as "... foodstuffs composed of glycerides of fatty acids..." The Proposed Draft Standard for Fat Spreads and Blended Spreads defines edible fats and oils as "...foodstuffs composed mainly of triglycerides of fatty acids..." The U.S. is not aware of whether the change in definition was inadvertent or deliberate. In any event, the U.S. strongly recommends that the Committee return to the original definition. A consequential amendment then would delete the phrase "partial glycerides" from the definition in the Proposed Draft Standard.

There are oils currently on the market that do not meet the definition in the Proposed Draft Standard. As a general principal, Codex Standards should provide maximum flexibility in definitions where there is no health concern so as not to inhibit technological innovation.

ACC (European Cereal Starch Industry)

In view of the 18th Session of Committee on Fats and Oils, the European cereal starch industry (AAC) would like to comment the above mentioned draft standard, especially regarding the table 4.5 Thickening and Stabilising Agents.

The draft Standard actually foresees the use of 15 modified starches as food additives authorised in fat spreads and blended spreads according to Good Manufacturing Practice. However, it omits to mention the two other existing modified starches, namely:

INS 1450 (starch sodium octenyl succinate),

INS 1451 (actetylated oxidised starch), The use of which should be however authorised according to Good Manufacturing Practice in fat spreads and blending spreads as well, as is the case in the European legislation.

We would also like to draw your attention on the two following points:

Specifications as mentioned in the Compendium of food additive specifications (FAO Food and Nutrition Paper 52, Add.9) indicate the INS 1420 covers the starch acetate production with acetic anhydride and vinyl acetate. Therefore mentioning INS 1421 is not relevant any more.

Reference to starch acetate (without INS number) is useless as it is also redundant with INS 1420.

INTERNATIONAL DAIRY FEDERATION

IDF would like to comment on section 8 on methods of analysis and sampling in the draft standard.

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

The given reference to ISO 3727: 1997 and IDF 80: 1977 is incorrect.

For the determination of moisture and solids-non-fat in *fat spreads* and *blended spreads* no validated method is available.

For the determination of fat in butter, fat spreads and blended spreads, ISO 17189 | IDF 194 can be used, which is now progressing to an International Standard.

8.5 Determination of salt content

The given reference to ISO CD 1738 and IDF 12B: 1988 is incorrect.

For *fat spreads* and *blended spreads* no validated method is available.

INTERNATIONAL FEDERATION of MARGARINE ASSOCIATIONS

Please find below the comments of the International Federation of Margarine Associations to the proposed Draft Standard for Fat Spreads and Blended Spreads (CL 2002/ 21 FO of July 2002). The margarine industry's comments refer to the text agreed at the CCFO meeting of February 2001.

- 1. IFMA supports the current wording of sections 1, 2 and 3.1.1.
- 2. Concerning 3.1.2. Blended Spreads, IFMA would like the same categorization as in 3.1.1. Fat Spreads i.e. a) Blend
 80 % and above
 - b) Blended fat spread below 80 %
- 3. Concerning section 4 Food Additives, please find our detailed comments hereby attached. Please note that IFMA's suggestions are indicated in bold*. Food descriptors have been added according to the EU Directives EC 92/2 and EC 94/36. For 310 and 321, IFMA would suggest to keep the maximum figures as allowed in EC directive 95/2. For 304 to 307, IFMA suggests a maximum of 1000 ppm.

- 4. Concerning section 5.1. Contaminants, IFMA suggests the following wording "the products covered by the provisions of this standard shall be free from heavy metals in amounts which may represent a hazard to human health". This sentence should suffice to establish the principle that fat spreads and blended spreads should be free from heavy metals.
- 5. IFMA supports the current wording of section 6 Hygiene.
- 6. In section 7 Labelling, IFMA would like to request a deviation of the Codex Guidelines of Use of Nutrition Claims for the term "low fat". IFMA would like the term "low fat" to be used for products with a fat content below 41%.

The deviation of the Codex Guidelines of Use on Nutrition Claims is based on the reference in the Codex Procedural Manual that Commodity Committees may diverge from the general principles if justified and endorsed by the relevant Horizontal Committee. At its 22^{nd} session in June 1997, CAC confirmed this principle - when adopting the Nutrition Claims Guidelines – stating that "Commodity Committees have the possibility to propose specific labeling and / or nutrition provisions in Commodity Standards".

IFMA is of the opinion that the meaning of the "low fat" claim depends on the composition of the reference product. The approach is similar to the term "full fat" i.e. a full fat milk has 3,5 % fat, a full fat cocoa powder has 20% fat and a full fat margarine has 80% fat. The restriction of the claim "low fat" to products with max. 3% fat would deprive the consumer to make meaningful distinctions between the various fat contents of products normally high in fat. During many years the 40% low fat spreads have gained a well established position in the market place, which has improved the overall fat consumption profile. Product specific claims are necessary to inform consumers about the advantages of special product categories in the area of fat spreads which are by nature high fat products.

7. IFMA supports the present wording of 7.1, 7.2, and 7.3.

***FOOD ADDITIVES**

4.1 Colours

		MAXIMUM LEVEL	
100	(i) Curcumin	GMP) in margarines,
) minarines,other
160a	(i) Beta-carotene	25 mg/kg)fat emulsions,
160a	(ii) Natural carotenes	GMP) and fats essentially
160b	Annatto extracts	10 mg/kg (calculated as total) free from water
		bixin or norbixin)
160e	Beta-apo-carotenal	25 mg/kg	in fat emulsions
160f	Beta-apo-8'-carotenoic acid,	25 mg/kg	in fat emulsions
	methyl or ethyl ester		

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

			MAXIMUN	<u>A LEVEL</u>
322	Lecithins)	GMP	in fat emulsions
	Polyoxyethylene (20) sorbitan:)		
432	Monolaurate)		
433	Mono-oleate)	10 g/kg sing	gly or in combination

			MAXIMUM LE	VEL
				in fat emulsions
434	Monopalmitate)	for baking purpo	ses only
435	Monostearate)		
436	Tristearate)		
471	Mono- and di-glycerides of fatty acids		GMP	in fat emulsions
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	in fat emulsions
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	in fat emulsions
			for baking purpo	oses only
474	Sucroglycerides)		
475	Polyglycerol esters of fatty acids		5 g/kg	in fat emulsions
476	Polyglycerol polyricinoleate		4 g/kg i	in fat emulsions (1)
477	Propylene glycol esters of fatty acids		10g/kg i	in fat emulsions
			for baking purpo	oses only
479 b	Thermally oxidised soya bean oil interacted		5g/kg i	in fat emulsions for
	with mono and diglycerides of fatty acids		frying & bakery	v purposes only (2)
481	Sodium lactylates)		
	(i) sodium stearoyl lactylate)	10 g/kg singly or	•
			in combination i	in fat emulsions
482	Calcium lactylates)		
	(i) calcium stearoyl lactylate)		
491	Sorbitan monostearate)		
492	Sorbitan tristearate)		
493	Sorbitan monolaurate)	10 g/kg singly or	•
			in combination i	in fat emulsions
494	Sorbitan monooleate)		
495	Sorbitan monopalmitate)		

4.4 Preservatives

			MAXIMUM LEVEL
200	Sorbic acid)	2,000 mg/kg singly or
			in combination (as sorbic acid)
			in fat emulsions
			with a fat content less than 60%
202	Potassium sorbate		
)	
203	Calcium sorbate)	1,000mg/kg singly or in combination (as sorbic acid) in fat emulsions with a fat content of 60% or more
210	Benzoic acid)	

			MAXIMUM LEVEL
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

		MAXIMUM L	EVEL
339	Na orthophosphate)		
400	Alginic acid)		
401	Sodium alginate)		
402	Potassium alginate)	GMP	in fat emulsions
403	Ammonium alginate)		
404	Calcium alginate)		
405	Propylene glycol alginate	3000 mg/kg	in fat emulsions
406	Agar)		
407 (i)	Carrageenan and its Na, K, NH4 salts)		
	(including furcellaran)		
410	Carob bean gum)	GMP	in fat emulsions
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)		
1400	Dextrine roasted starch)	GMP	in fat emulsions
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)		
1421	Starch acetate ester. Vinyl acetate)		
1422	Acetylated distarch adipate)		
1440	Hydroxypropyl starch)		

		MAXIMUM LEVEL	
1442	Hydroxypropyl distarch phosphate)	
	Starch acetate	Refer to 1420	
	Cellulose and microcrystalline cellulose	Refer to 460	

4.6 Acidity Regulators

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

4.7 Antioxidants

		MAXIMUM	LEVEL
300	Ascorbic acid (L-))	
301	Sodium ascorbate) GMP	in fat emulsions
302	Calcium ascorbate)	
304	Ascorbyl palmitate)	
305	Ascorbyl stearate) 500mg/kg	
306	Mixed tocopherols concentrate) 1000 mg/kg	in fat emulsions
307	Alpha-tocopherol)	

310	Propyl gallate		100 mg/kgin fats and oils forthe professional manufacture ofheat-treated foods; in frying oils andfats,excl.olive pomace oil.200 mg/kg in the EU legislation
319	Tertiary butyl hydroquinone (TBHQ))	200 mg/kg
320	Butylated hydroxyanisole (BHA))	
321	Butylated hydroxytoluene (BHT))	 75 mg/kg in fats and oils for the professional manufacture of heat-treated foods; in frying oils and fats, excl.olive pomace oil. 100 mg/kg in the EU legislation
389	Diluaryl thioproprionate		200 mg/kg in fat emulsions
	Any combination of gallates, BHA and BHT		Limits for individual compounds must not be exceeded.

4.8 Antioxidant synergists

		MAXIMUM I	MAXIMUM LEVEL	
384	Iso propyl citrates	100 mg/kg	in fat emulsions	
385	Calcium disodium EDTA	75 mg/kg 100 mg/kg	in fat emulsions	
		having a fat c less,excl.butte	having a fat content of 41% or less,excl.butter	

4.9 Anti-foaming agents

		MAXIMUM LEVEL	
900a	Polydimethylsiloxane	10 mg/kg	in fats and oils for
		frying purposes only	

4.10 Flavour enhancers

		MAXIMUM LEVEL		
508	Potassium chloride)		
509	Calcium chloride)	GMP in fat emulsions	
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)	in fat emulsions	
625	Magnesium diglutamate)		
626	Guanylic acid)		
627	Sodium guanylate)		
628	Potassium guanylate)		
629	Calcium guanylate)		
630	Inosinic acid)	500 mg/kg singly	
630	Inosinic acid)	500 mg/kg singly or in combination	

		MAXIMUM LEVEL	
632	Dipotassium inosinate)	in fat emulsions
633	Calcium inosinate)	
634	Calcium 5'-ribonucleotides)	
635	Disodium 5'-ribonucleotides)	

4.11 Sweeteners

		MAXIMUM LEVEL		
420	Sorbitol and sorbitol syrup)		
421	Mannitol)		
953	Isomalt) GMP	in fat emulsions	
965	Maltitol)		
966	Lactitol)		
967	Xylitol)		

4.12 Miscellaneous

		MAXIMUM LEVEL	
290	Carbon dioxide	GMP	in fat emulsion
338	Orthophosphoric acid	GMP	in fat emulsions
		excl.butter	
		According to	EU legislation Na,
		K,Ca,Mgphosp	phates, diphosphates,
		triphosphates,	polyphosphates may
		also be used 5	000 mg/kg.
1520	Propylene glycol	GMP	in fat emulsions
551	Silicon dioxide amorphous	3000 mg/kg	in spreadable fats
		for coating bak	ting tins.Salts may
		also be used ac	c.to EU legislation.
941	Nitrogen	GMP	in fat emulsions
942	Nitrous oxide	GMP	in fat emulsions

- (1) The current restriction to fat emulsions having a fat content of less than 41% fat would limit the ability of the sector to get healthier spreads (lower in saturates) to consumers in developing and emerging markets, where fat spreads are an important source of energy and nutrition. Presently the fat spreads industry has developed technology using 476 in fat spreads with a fat level above 41% fat, which makes it possible to use lower than usual hardened fat levels whilst still maintaining good stability of the product.
- (2) This additive is not only an emulsifier, it is also an antispattering agent and should be allowed for frying and baking purposes.