



WORLD CUSTOMS ORGANIZATION
ORGANISATION MONDIALE DES DOUANES

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SCIENTIFIC SUB-COMMITTEE

-
15th Session

HARMONIZED SYSTEM
COMMITTEE

-
25th Session

NS0002E1
(+Annexes I to XI)

O. Eng.

H9-3

Brussels, 12 November 1999.

CLASSIFICATION OF "HIGH FAT CREAM CHEESE" AND POSSIBLE
CREATION OF A DEFINITION OF CHEESE OF HEADING 04.06

(Item II.1 on Agenda)

Reference documents :

41.475 (HSC/20)	42.805 (SSC/14)
41.600, Annex G/23 (HSC/20 – Report)	42.827 (SSC/14)
42.040 (HSC/21)	42.828 (SSC/14)
42.056 (HSC/21)	42.850, Annex A/13 (SSC/14 - Report)
42.113 (HSC/21)	NC0027E1 (HSC/23)
42.100, Annex H/1 (HSC/21 – Report)	NC0086E1 (HSC/23)
42.438 (HSC/22)	NC0090E2, Annex E/1 (HSC/23 – Report)
42.727 (HSC/22)	NC0129E1 (HSC/24)
42.750, Annex G/12 (HSC/22 – Report)	NC0154E1 (HSC/24)
	NC 0160E2, Annex G/10 (HSC/24 – Report)

I. BACKGROUND

1. The classification of high fat cream cheese has been examined at the 20th, 21st, 22nd and the 24th Sessions of the Harmonized System Committee. In addition the Scientific Sub-Committee examined several questions asked by the HS Committee at its 14th Session.
2. At its 24th Session, the Committee instructed the Secretariat to issue a summary document to be examined at its next Session, and if necessary to send the matter to the Scientific Sub-Committee prior to that session.

File No. 2701

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II. EXAMINATION BY THE HARMONIZED SYSTEM COMMITTEE
AT ITS 20TH, 21ST AND 22ND SESSIONS

3. At the 20th, 21st and 22nd Sessions, the HS Committee examined this question on the basis of information provided by Japan.
4. According to information submitted by Japan (see Doc. 41.475), these products are manufactured by processing cream with a butterfat content of approx. 42 %. A starter is added followed by the concentration of butterfat up to 68 %. This is followed by the separation of whey before the products are heated to 80 °C for one minute and homogenized. They are then cooled down to 12 °C, filled and then stored at 2 °C, and finally processed to blast frozen. The fermentation period is said to be shorter than that of ordinary fresh cheese.
5. The products, according to the information submitted by Japan, are used as a replacement for cream or butter. They are presented in bulk, but frozen, and are not solids at room temperature.
6. The results of the analysis carried out by Japan are reproduced in Annex I to this document as samples (a), (b) and (c). It should be noted that these results were accepted by Australia, presumably except for organoleptic characteristics (see paragraph 12, Doc. NC0027E1).
7. When the HS Committee first examined the matter at its 20th Session, some doubts were expressed as to the manufacturing process given in the working document. It was, therefore, decided to re-examine the matter based on new information on the manufacturing process to be provided by Australia.
8. At its 21st Session, when the HS Committee re-examined the classification question, taking into account comments from several administrations, it was once more decided to re-examine the question further on the basis of additional information and technical details to be submitted from Australia.
9. At its 22nd Session the Harmonized System Committee agreed to ask the Scientific Sub-Committee the following questions concerning the classification of high fat cream cheese :
 - (i) whether cheese could be a water-in-oil type emulsion and, if so, how to make a distinction between water-in-oil emulsion type dairy spreads and water-in-oil emulsion type cheese;
 - (ii) the meaning of coagulation in the context of the production of cheese and whether heating should be regarded as a coagulating agent;
 - (iii) whether the protein content was a determining factor for cheese;
 - (iv) the maximum level of fat content on a dry basis allowed for cheese products;
 - (v) the water/protein ratio in cheese;

- (vi) whether the products at issue met the criteria for dairy spreads set out in Note 2 (b) to Chapter 4.

III. EXAMINATION BY THE SCIENTIFIC SUB-COMMITTEE

10. At its 14th Session, when the Scientific Sub Committee examined these questions, it was revealed that definitive answers were difficult to obtain on a number of those questions; nevertheless the answers (or comments) could be summarized as follows :

Can cheese be a water-in-oil type emulsion and, if so, how to make a distinction between water-in-oil emulsion type dairy spreads and water-in-oil emulsion type cheese ?

11. The Sub-Committee could not reach agreement as to whether cheese could be a water-in-oil type emulsion or not. In this context it was stated by the Delegate of Australia that cheese can be expected to be “phase variable”, meaning that it was not strictly an oil-in-water emulsion type such as cream, or a water-in-oil emulsion type such as dairy spreads, but was more likely to represent a mixture of these phases.

12. In order to make a distinction between water-in-oil emulsion type dairy spreads and water-in-oil emulsion type cheese, an electric conduction method was reported to be used, although internationally recognized tests did not exist.

What is the meaning of coagulation in the context of the production of cheese and can heating be regarded as a coagulating agent ?

13. Several delegates stated that the relevance of defining coagulation was still being debated by the International Dairy Federation (IDF). It would therefore be premature to give an opinion on this question. It was also stated that coagulation of cheese could be achieved by use of rennet or by other manufacturing methods, as provided by CODEX draft Standard A-6.

14. It was pointed out that coagulation was a key element in the cheese making process, and it was obvious in this case that coagulation meant coagulation of protein, specifically casein in this case.

15. Many delegates were also of the view that heating alone could not be regarded as a coagulation agent, as stated in paragraph 14 of Doc. 42.805.

Is the protein content a determining factor for cheese ?

16. The Delegate of Japan was of the opinion that a minimum protein level should be defined in the Harmonized System, although it was not mentioned in the CODEX draft standard.

17. Other delegates stated that protein content was very important. It gave structure to cheese and held it together. In addition it was stated that a minimum protein content was necessary to make cheese coagulate. One delegate stated that when the protein content was too low, the heat treatment might be just pasteurisation.

18. One delegate informed the Sub-Committee that in his country 7 % protein by weight (calculated on the dry matter content) was set as a minimum protein limit for cheese. The

Chairman referred to a table presented during the last meeting of the Harmonized System Committee. From this table it could be seen that other cheese had a protein content (calculated on the dry matter content), from 16 % to 60 %, the only exception being Mascarpone with a protein content of 8 %, which was still high as compared to the products in question. This was the lowest protein content of a recognised cheese which could be identified, and there was some concern about the gap between its protein content and that of the products under consideration (less than 2% on the dry matter content). One delegate indicated that specific limits on protein in cheese could not be set as they varied considerably between different types of cheese.

What is the maximum level of fat content on a dry basis allowed for cheese products ?

19. It was confirmed that IDF had not set a maximum level for fat content in cheese. One delegate informed the Committee that the maximum level was set at 87 % in his country. The Delegate of Japan was of the opinion that the maximum level could be set at 50 to 60 % in the original mass, meaning that all conventional cheese varieties would be covered. It was finally agreed that establishing a limit was difficult, but giving examples of fat content in cheese in some Member states could be helpful. One delegate indicated that the specific limits on fat in cheese could not be set as they varied considerably between different types of cheese.

Water/protein ratio in cheese ?

20. The Sub-Committee was not sure whether the water/protein ratio was relevant to the definition of cheese. One delegate indicated that in his country the maximum water content was set at 840 g per Kg.

Do the products at issue meet the criteria for dairy spreads set out in Note 2 (b) to Chapter 4 ?

21. Several delegates were of the opinion that these products might meet the criteria for dairy spreads set out in Note 2 (b) to Chapter 4. The supplementary criteria set out in the Explanatory Note to heading 04.05, Item (B) also indicated that these products could be regarded as dairy spreads. One delegate indicated that the criteria for inclusion in heading 04.05 were quite broad. However, without having seen the products at issue and not having analysed them, it was difficult to answer this question.
22. Several delegates indicated that samples had to be presented, not only for testing purposes, but also to get an impression of the products' texture, feel, smell, look, etc. It was thought that such characteristics might be more relevant when deciding whether a product should be considered to be a cheese within the HS Nomenclature.
23. It was finally decided that Australia should supply interested delegations with samples in order to carry out necessary testing, and to give an impression of the products' texture, feel, smell, look, etc. Interested administrations were invited to notify the Secretariat of their intentions to participants in the test.
24. The following delegations notified the Secretariat that they would like to participate in the test mentioned above : Austria, Canada, Finland, France, Ireland, Japan, Mexico, Netherlands, United Kingdom and the United States. Pursuant to these requests, in April 1999, Australia despatched the following three different samples to each of the Contracting Parties mentioned above :

Sample A : Double mascarpone, processed by rennet coagulation, manufacturer Murrenbidgee Dairy Products.

Sample B : Triple M Cheese, processed by thermal coagulation, manufacturer Bonlac Foods.

Sample C : High fat cream cheese, processed by thermal coagulation, manufacturer Tatura Milk Industries.

25. The Secretariat received the test results from all administrations (except one) regarding these samples. These results, and the results submitted by Australia, are set out in Annex I to this document and the full results of their tests (and comments) are reproduced in Annexes II to X.

IV. LATEST EXAMINATION BY THE HARMONIZED SYSTEM COMMITTEE

26. At its 23rd Session (May 99), it was decided to postpone discussion of this item to the 24th Session of the Committee since only one administration had carried out the laboratory tests referred to above.
27. At its 24th Session (October 1999), the Harmonized System Committee once more examined the questions submitted by Japan concerning the classification of high fat cream cheese and the possible creation of a definition of cheese of heading 04.06.
28. One delegate emphasized that this was still a preliminary discussion, but it was important at this stage to agree on the products to be classified. He was of the opinion that the Committee should concentrate on the classification of the “new” products submitted for analysis to the Customs laboratories of Austria, Canada, Finland, France, Ireland, Japan, Mexico, the Netherlands, United Kingdom and the United States.
29. He was a little worried about the discrepancies in the different test results regarding the “new” products, but he stated that the Committee should look at these results with flexibility. Finally, he proposed that the Secretariat should prepare one summary document containing all the relevant information available, including the test results from the laboratories which had carried out their tests, the latest Codex General Standard for cheese and the Secretariat’s neutral analysis of all this information. On the basis of this information, the Committee would hopefully be able to take a final decision at its next Session in March 2000.
30. The Delegate of Australia argued that the product in question had to be classified as cheese for the following reasons :
- (a) High fat cream cheese met the definition established by the International Dairy Federation (IDF) – a definition which has been accepted by the CODEX Alimentarius Commission;
 - (b) High fat cream cheese complied with the three provisions set out in Note 3 to Chapter 4. At the same time it did not comply with Note 2 (b) to Chapter 4 defining dairy spreads. According to that Note, dairy spreads had to be spreadable emulsions of the “water-in-oil type”. As this product was phase variable, it could not be classified in heading 04.05.
31. As to the “varying” test results, he pointed out that the tests have to be performed on fresh products. It may have been the case that some tests had been carried out on old

products and under varied conditions, and that this could explain the varying results. The technical expert from Australia confirmed that transport and storage problems, in addition to the age of the product before testing, appeared to be the explanation for the varying test results. It appeared to him that the products had not been examined under the same conditions.

32. The Delegate of Japan stated that with regard to the new samples sent from Australia, all of which were not the same as the original samples, especially new sample A which was not similar in chemical composition to any of the original samples (samples (a), (b) and (c) (Doc. 41.475 and Doc. NC0027E1) and did not have the same organoleptic characteristics, although new samples B and C (Docs. NC0086E1 and NC0154E1) were of similar nature to the original samples. He asked the Committee to take a decision based on the original samples since these samples had given rise to classification problems in Japan. Since Australia had already accepted the analysis of the products done by Japan (see paragraph 6 above), the classification of the products could be based on these results in combination with the organoleptic characteristics of the new products. In his view, these products could be classified as dairy spreads in heading 04.05 or as other food preparations in heading 21.06.
33. The Delegate of Japan stated that the problem concerning the proper classification of high fat cream cheese had grown further, because the importation of high fat cream cheese had increased since the HSC started the discussion of this question more than two years ago. He strongly requested the Committee to rule on the classification of the original samples at the 25th Session in March 2000.
34. After this discussion, the Director confirmed that the Secretariat was prepared to issue a summary document to be examined at the Committee's next Session. However, the Committee should first decide on which samples to classify.
35. Since it was impossible to carry out organoleptic tests with regard to original samples (a), (b) and (c) due to the fact that these old samples no longer existed, the Committee agreed to first examine the classification of new samples A, B and C on the basis of the summary document to be prepared. Thereafter, the Committee would examine the classification of original samples (a), (b) and (c) on the basis of the test results as mentioned above, taking into account the decisions regarding new samples A, B and C.
36. The Committee finally agreed that the Secretariat was free to decide whether it was necessary to consult the Scientific Sub-Committee once more before submitting this classification question to the Committee at its next Session.

V. DISCUSSIONS IN THE CODEX ALIMENTARIUS COMMISSION

37. The Secretariat has received the Draft Standard for Cheese (A-6), adopted at the 23rd Session of the Codex Alimentarius Commission (28 June - 3 July 1999), which is reproduced in Annex XI to this document.
38. However, during the above discussion in the Commission, one delegation proposed that the Commission request the Committee for Milk and Milk Products to consider the inclusion of a minimum level of protein in the Standard to provide for better guidance on the product. This issue has therefore been referred by the Codex Alimentarius Commission to the Codex Committee for Milk and Milk Products (CCMMP) for consideration at its next session in February/March 2000 in Wellington (New Zealand). In this respect the

International Dairy Federation is currently working on a paper related to the "Definition and Composition of Cheese" which is expected to be ready for government consideration and discussion prior to the CCMMP meeting.

VI. SECRETARIAT COMMENTS

39. In the Secretariat's view, it is necessary to ask the Scientific Sub-Committee certain questions. This document, therefore, is prepared both for the Scientific Sub-Committee and the Harmonized System Committee and includes information and questions for both.
40. Headings 04.03, 04.05, 04.06 and 21.06 were taken into consideration when this classification issue was discussed at the previous sessions of the HS Committee. However, since it appears that the Japanese Administration has accepted that these products cannot be classified as cream in heading 04.03 (see Doc. 42.113 – paragraph 3), this heading can, in the Secretariat's view, be eliminated from consideration. Furthermore, since heading 21.06 is a "basket heading", and can only be taken into consideration if classification in heading 04.05 (as "dairy spreads") or heading 04.06 (as cheese) is not possible, this heading will not be taken into consideration for the time being.

Heading 04.05

41. Dairy spreads are defined in Note 2 (b) to Chapter 4 as "a spreadable emulsion of the water-in-oil type containing milkfat as the only fat in the product, with a milkfat content of 39 % or more but less than 80 % by weight." In addition, according to the Explanatory Note to heading 04.05, "dairy spreads may contain optional ingredient such as cultures of harmless lactic-acid producing bacteria, vitamins, sodium chloride, sugars, gelatine, starches; food colours; flavours; emulsifiers; thickening agents and preservatives".
42. From the laboratory tests in the tables in Annex I to this Document, it appears that there is a consensus that products A, B and C are spreadable emulsions. Samples (a), (b) and (c) are, according to the Japanese Administration, used as a replacement for cream or butter. In the Secretariat's view, this indicates that these products have a similar consistency as A, B and C. Moreover, it seems that milkfat is the only fat in all six products and it also appears that the fat content in all products is between 39 % and 80 %. Having regard to Note 2 (b) to Chapter 4, the only question to be answered, therefore, seems to be whether these products are of the "water-in-oil-type".
43. According to the Japanese Administration, sample (a) is an emulsion of the water-in-oil type, while samples (b) and (c) are neither soluble in water nor in oil. At previous sessions the Australian Administration has stated that these products can be expected to be "phase variable", meaning that they are not strictly oil-in-water emulsion types as cream, or water-in-oil emulsions such as dairy spreads.
44. Several administrations are of the view that samples A, B and C are emulsions of the water-in-oil type, while Japan is of the view that only samples B and C are emulsions of the this type since sample A is of an uncertain emulsion type.
45. The Secretariat therefore requests the Scientific Sub-Committee to express its view whether samples A, B and C are emulsions of the water-in-oil type or not. The Scientific Sub-Committee is also invited to define the expressions "water-in-oil" and "oil-in water", respectively.

Heading 04.06

46. Cheese is not defined in the HS. However, the Explanatory Note to heading 04.06 states that the heading covers all kinds of cheese. In item (1), corresponding to subheading 0406.10, the following examples are given :
- “(1) Fresh cheese (including cheese made from whey or buttermilk) and curd. Fresh cheese is an unripened or uncured cheese which is ready for consumption shortly after manufacture (e.g., Ricotta, Broccio, cottage cheese, cream cheese, Mozzarella).”
47. At the 24th Session of the HS Committee the Delegate of Australia stated that high fat cream cheese complies with the three provisions set out in Note 3 to Chapter 4 (see paragraph 30 above). This note reads as follows :
- “3.- Products obtained by the concentration of whey and with the addition of milk or milkfat are to be classified as cheese in heading No. 04.06 provided that they have the three following characteristics :
- (a) a milkfat content, by weight of the dry matter, of 5 % or more;
 - (b) a dry matter content, by weight, of at least 70 % but not exceeding 85 %; and
 - (c) they are moulded or capable of being moulded.”
48. This legal Note was created by the Nomenclature Committee at its 48th Session (May 1982) to provide a clear demarcation line between whey concentrate of heading 04.04 and whey cheese of heading 04.06 (see Doc.28.500, Annex D/1). In this connection, attention should be drawn to the Annex to Doc. 28.375, which is a working document for that Session. This Annex shows examples of whey cheese, which contain 36% to 59% of lactose. The high proportion of lactose content would be due to the concentration of whey to obtain the products as mentioned in Note 3 to Chapter 4.
49. According to the Japanese Administration, in the case of samples (a), (b) and (c), whey has been separated during the manufacturing process (see paragraph 4 above). This seems to be the reason why the lactose content of these samples is very low as compared with whey cheese as mentioned above. The Secretariat does not have any information whether whey has been separated with regard to samples A, B and C. However, the lactose content of these samples is also as low as samples (a), (b) and (c) and this implies that whey has been separated during the manufacturing process.
50. The Secretariat is therefore hesitant to apply Note 3 to Chapter 4 to the classification of the products in question.
51. Moreover, if the Committee should decide to classify high fat cream cheese in heading 04.06, the Secretariat is of the opinion that it would have to be classified in subheading 0406.10 (“Fresh (unripened or uncured) cheese, including whey cheese, and curd. It therefore seems somewhat inappropriate to use this Note as a basis for classification in heading 04.06.

Provisions of Codex and IDF

52. When the Secretariat consulted the International Dairy Federation (IDF) concerning this matter in 1997, IDF concluded that products (a), (b) and (c) satisfied all the criteria in Codex draft Standard A-6 concerning cheese (Doc. 42.040, paragraphs 8 to 13). This also seems to be the case according to the latest draft standard, adopted at the 23rd Session of the Codex Alimentarius Commission (28 June – 3 July 1999) (see Annex XI to this document).
53. However, as mentioned in paragraphs 37 and 38 above, the Codex Alimentarius Commission is now reexamining the definition of cheese.

VI. CONCLUSION

54. The Scientific Sub-Committee is requested to examine the question raised in paragraph 45 above whether samples A, B and C are emulsions of the water-in-oil type or not. The Sub-Committee is also invited to define the expressions “water-in-oil” and “oil-in water”.
55. The Scientific Sub-Committee is further requested to consider whether Note 3 to Chapter 4 is applicable for the classification of samples A, B and C and also samples (a), (b) and (c).
56. Based on the conclusions of the Scientific Sub-Committee, the laboratory reports, the texts of the Harmonized System and the draft Codex standard concerning cheese, the Harmonized System Committee is invited to rule on the classification of products A, B and C, as described in paragraph 24 above.
57. The HS Committee is also invited to consider whether it can classify products (a), (b) and (c) (see paragraph 6 above) based on the information available. If it is in a position to decide, the Committee is also invited to rule on the classification of these products and to express its views as to what further action should be taken with regard to the definition of cheese.

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ANALYTICAL RESULTS

ISAMPLES	Fat content – dry matter			Fat content			Moisture		
	A	B	C	A	B	C	A	B	C
Australia	93.5%	97.8%	98.8%	56.4%	70.4%	72.5%	39.7%	28.0%	26.6%
Austria	92.9%	96.4%	98.4%	62.7%	67.9%	72.6%	32.5%	29.6%	26.2%
Canada	-	95.9%	98.4%	-	67.8%	72.8%	-	29.3%	26.0%
Ireland	-	-	-	-	-	-	-	-	-
Japan	-	-	-	60.6%	70.1%	72.4%	34.6%	27.6%	25.6%
Mexico	-	-	-	54.4%	69.5%	72.3%	40.5%	28.4%	24.5%
United States	91.8%	95.1%	94.3%	63.0%	68.8%	70.1%	31.4%	27.7%	25.7%
SAMPLES	a	b	c	a	b	c	a	b	c
Japan	96.7%	95.1%	91.5%	78.8%	64.0%	55.0%	18.5%	32.7%	39.9%

ISAMPLES	Protein content			Lactose content		
	A	B	C	A	B	C
Australia	3.96 %	1.06 %	0.996 %	1.7 %	1.3 %	1.4 %
Austria	4.09 %	1.09 %	0.99 %	0.64 %	1.01 %	1.03 %
Canada	-	-	-	-	1.6 %	0.7 %
Ireland	1	~	2,5%	---	---	---
Japan	3.95 %	0.93 %	0.85 %	1.40 %	1.33 %	1.21 %
Mexico	4.0 %	1.47 %	0.5 %	-	-	-
United States	0.20 %	0.23 %	0.23 %	1.02 %	1.49 %	1.07 %
SAMPLES	a	b	c	a	b	c
Japan	0.7 %	1.2 %	1.5 %	1.0 %	1.6 %	1.8 %

Organoleptic tests have also been carried out by the laboratories concerned. The results of these tests can be summarized as follows :

ORGANOLEPTIC CHARACTERISTICS

SAMPLES	A	B	C
Australia	Solid at room temperature Whiter than dairy spreads Texture and smell similar to standard cream cheese Phase-variable	Solid at room temperature Whiter than dairy spreads Texture and smell similar to standard cream cheese Phase-variable	Solid at room temperature Whiter than dairy spreads Texture and smell similar to standard cream cheese Phase-variable
Austria	Spreadable paste Yellow Acidulous flavour and buttery taste	Spreadable paste Yellow Acidulous flavour and buttery taste	Spreadable paste Yellow Acidulous flavour and buttery taste

Canada	The sample was not received in good condition. It was partly separated and was moldy. No further examinations were carried out.	Soft, spreadable semi-solid Pale yellow Butter-like aroma Bland fatty flavour Appears to be water-in-oil emulsion	Soft, spreadable semi-solid Pale yellow Butter-like aroma Bland fatty flavour Appears to be water-in-oil emulsion
France	Semi-solid, butter-like consistency, but smoother and containing small clots Similar smell to cheese Water-in-oil emulsion	Soft consistency, smooth, clot-free texture. Between butter and cream inappearance A single phase Similar smell to cheese Water-in-oil emulsion	Consistency similar to butter, but slightly softer Clot-free texture Butyric smell Water-in-oil emulsion
Ireland	Pale white colour Slight granularity before melting in the mouth	Pale white colour Mouth feel similar to butter or spreads	Pale white colour Mouth feel similar to butter or spreads
Japan	Solid light-yellow paste Strong smell of cheese Emulsion type uncertain	Solid Light-yellow paste Faint flavour of cream/butter Water-in-oil emulsion	Solid Light-yellow paste Faint flavour of cream/butter Water-in-oil emulsion
Mexico	Cream coloured paste Yellowish Strong diacetyl taste, Slightly cheesy	Cream coloured paste Yellowish Strong diacetyl taste Slightly cheesy	Cream coloured paste Yellowish Strong diacetyl taste Slightly cheesy
The Netherlands	Solid, granular, in a liquid layer Cream coloured/light yellow colour Creamy/cheese smell	Solid, smooth and a bit granular Cream coloured/light yellow colour Light creamy smell	Solid, smooth Light yellow colour Light creamy smell
United Kingdom	More texture than B and C and closer to Mascarpone Creamy Pleasant	Greasier than A Taste from bland to butyric to rancid	Greasier than A Taste from bland to butyric to rancid

SAMPLES

a

b

c

Japan	Non-solid Water-in-oil emulsion	Non-solid Neither soluble in water nor in oil	Non-solid Neither soluble in water nor in oil
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COMMENTS FROM THE JAPANESE ADMINISTRATION“Analytical results of High Fat Cream Cheeses from Australia

(Qualitative analyses)	Sample A	Sample B	Sample C
1. Appearance (Cold storage) (at 28 °C)	Solid Light-yellow paste	Solid Light-yellow paste	Solid Light-yellow paste
2. Smell	Strong smell of cheese	Faint flavour of cream/butter	Faint flavour of cream/butter
3. Solubility in petroleum ether	Separated into transparent yellow solution and a large amount of milk-white precipitation	A large portion of sample is soluble (a small amount of precipitation only)	A large portion of the sample is soluble (a small amount of precipitation only)
(Quantitative analyses)			
1. Moisture content	34.6 %	27.6 %	25.6 %
2. Butterfat content	60.6 %	70.1 %	72.4 %
3. Protein content	3.95 %	0.93 %	0.85 %
4. Lactose content (Hanes method)	1.40 %	1.33 %	1.21 %
5. Ash content (550°C/3hrs)	0.45 %	0.18 %	0.19 %
(Total values)	101.00 %	100.14 %	100.25%
6. Acidity	0.14	0.04	0.05
pH	6.07		6.60

NOTE FROM THE JAPANESE ADMINISTRATION ON ANALYTICAL RESULTS ON
HIGH FAT CREAM CHEESES FROM AUSTRALIA

- On 12 April 1999, the Japanese Administration received three samples from Australia labelled as Sample A (Double Mascarpone). Sample B (Triple M), and Sample C (High Fat Cream Cheese), respectively. These samples were analysed immediately on physical, chemical and organoleptic characteristics. (Table I).
- Physical status of the samples showed solid under cold storage, however, they turned into paste like status at 28 °C. This status does not seem solid or semi-solid.

Annex II to Doc. NS0002E1

3. Samples B and C are considered as water-in-oil emulsions because they were highly soluble in petroleum ether. The emulsion type of sample A remained uncertain because it was partly soluble in petroleum ether but a large amount of milk-white mass remained insoluble.
4. The protein contents of samples A, B and C on a dry matter basis are 5.94 %, 1.28 % and 1.14 %, respectively. Based on the fact that sample A was manufactured using rennet and higher protein content, coagulation of protein (casein) had taken place properly in this sample.
5. However, samples B and C are, concerning their physical, chemical and organoleptic characteristics, most comparable with butter and should be regarded as dairy spreads.
6. Apart from the result above, the Japanese Administration would like to point out that the samples supplied by Australia at this time are not similar to those in Doc. 42.805. Japan would ask member countries that a prudent decision be made on the classification of the originally submitted samples (a), (b) and (c) as a consequence of the fact mentioned here.”

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COMMENTS FROM THE US ADMINISTRATION

“UNITED STATES CUSTOMS SERVICE – LABORATORY REPORTS

	DOUBLE MASCARPONE	TRIPLE M	HIGH FAT CREAM CHEESE
Moisture	31.4 %	27.7 %	25.7 %
Fat	63.0 %	68.8 %	70.1 %
Fat (moisture free basis)	91.8 %	95.1 %	94.3 %
Protein (6.38 factor)	0.20 %	0.23 %	0.23 %
Salt (as sodium chloride)	0.09 %	0.04 %	0.05 %
Lactose (monohydrate)	1.02 %	1.49 %	1.07 %”

* * *

COMMENTS FROM THE AUSTRIAN ADMINISTRATION

“The analytical results of three samples of high fat cream cheeses are as follows :

	Double mascarpone	Triple M cheese	High fat cream cheese
	Condition : yellow, spreadable paste with acidulous flavour and buttery taste	Condition : yellow, spreadable paste with acidulous flavour and buttery taste	Condition : yellow, spreadable paste with acidulous flavour and buttery taste
	Analytical results :		
Dry substance (103 °C)	67.5 %	70.4 %	73.8 %
Moisture	32.5 %	29.6 %	26.2 %
Total fat	62.7 %	67.9 %	72.6 %
Fat (MFB)	92.9 %	96.4 %	98.4 %
Total nitrogen	0.64 %	0.17 %	0.15 %
Protein (TN x 6.38)	4.09 %	1.09 %	0.99%
Ash (550 °C)	0.41 %	0.26 %	0.20 %
Lactose (HPLC)	0.64 %	1.01 %	1.03 %
pH	4.4	4.3	4.7

In our opinion (laboratory) the three products are not cheeses in the sense of heading 04.06, but products of heading 04.05 (dairy spreads).”

* * *

COMMENTS FROM THE MEXICAN ADMINISTRATION

1. "I make reference to the memorandum received from Phill Goode Manager Planning (International) of the Australian Dairy Corporation wherein you advise us of the dispatch of samples of "cheese" including analysis for our evaluation and impression of the products.
2. Additionally we received as well copies of comments regarding classification of high fat cream cheese and possible creation of a definition of cheese of heading 04.06, Docs. 42.805, 42.827, 42.828 dated Brussels 21 January, Brussels 1 February & Brussels 5 February all of them pertaining to the 14th Session of the WCO/OMD Scientific Sub-Committee.
3. In this respect we would like to inform you that we analyzed the samples and found them to have the following analysis.

	DOUBLE MASCARPONE	TRIPLE M. CHEESE	HIGH FAT CREAM CHEESE
Protein	4,0%	1,47%	0,5%
Fat	54,4%	69,5%	72,3%
Humidity	40,5%	28,4%	24,5%
Ash	0,5%	0,2%	0,2%
Carbohydrates	0,6%	0,5%	2,5%

Description of product : Yellowish cream coloured paste
 Flavour : Strong diacetyl, slightly cheesy.

4. Firstly let me reproduce the history of the Mascarpone cheese : it was originally made in the southern region of the province of Milan and its production was confined almost exclusively to the winter months. Currently due to the technology of refrigeration this cheese can be made and transported all year around.
5. The Mascarpone cheese can be defined as a type of coagulated cream velvety in appearance, thick with a delicate and sweet flavour. It is made out of cream which has been removed from the surface of the milk or better yet by centrifugation. It's fat content is between 25 to 35%. It is placed in water and heated to 185-194°F (85-90°C) and is maintained with slight agitation. Afterward citric or tartaric acid is added and then the blend is agitated slowly and lightly until coagulates begin to form which in turn agglomerate into larger particles.
6. Afterwards the curd is removed and placed in muslin cloth and the curd is drained for 25 hours at a temperature of 46 – 50°F (8 – 10°C). When this is finished the curd is whipped and packed in small tubes. This product is not only used as cream in fruits and desserts but also plays an important role in many culinary Italian specialities.

The final analysis of the Mascarpone Cheese is as follows :

Protein (N x 6.38)	7 to 8,0 %
Fat	45 to 55,0 %
Humidity	45 to 50,0 %
Lactose	2 to 3,0 %

7. Re Scientific Sub-Committee Doc. 42.805 we have taken due note of the cream cheese analysis (for reference only) and it is plain to see that the product has a very low protein content and yet it is classified as a cheese. We agree with the Delegate of Japan's criteria that Mascarpone cheese should not be reclassified and this also should apply to Cream Cheese even though in my opinion I would like to see the word spread next to it.
8. We are here to discuss the following :
- (i) whether cheese could be a water-in-oil emulsion and if so, how to make a distinction between water-in-oil emulsion type dairy spreads and water-in-oil emulsion type cheese;
 - (ii) the meaning of coagulation in the context of production of cheese and whether heating is regarded as a coagulating agent;
 - (iii) whether the protein content was a determining factor for cheese;
 - (iv) the maximum level of fat content on a dry basis allowed for cheese products;
 - (v) water/protein ratio in cheese;
 - (vi) whether the products at issue met the criteria for dairy spreads set out in Note 2 (b) to Chapter 4.
9. In my opinion the discussion on whether cheese could be a water-in-oil type emulsion and, if so, how to make a distinction between water-in-oil emulsion type dairy spreads and water-in-oil emulsion type cheese is irrelevant. I believe that there is no question regarding this product to be an oil/water emulsion as indicated in the Dairy Science and Technology Handbook, Vol. 3, page 22. The problem lies in the difference of identity between a dairy spread and a cream cheese. The fact of the matter remains that the only difference between the two products comes down in the end to the process of obtention, nevertheless the final product has the same nutritious value and if we use this as a parameter then the product irrespective of the coagulation process with a very low or negligible amount of protein in the final product should become a dairy spread.
10. The term or word "coagulation" is used to indicate the following : to curdle (thicken), to congeal (harden, come together and gelare freeze, to freeze together, water becomes ice); to cause a liquid to become a soft semi – solid mass as to coagulate blood, rennet coagulates milk. The act of changing from a fluid to a soft semi – solid state, also the state of being coagulated. The mass or result of such a change. What is then a coagulum ? : a coagulated mass, as curd, however meet the draft CODEX requirement that whey protein ration does not exceed that of milk. In high fat products the protein levels will be by definition very low.
11. With regard to this memorandum we arrive at the same conclusion which we have been all along indicating and that is that in our opinion you can not use the word cheese which comes from cases equal to casein to brand a product which has little or negligible amounts of this protein it is absolutely misleading in its definition irrespective of CODEX and IDF's information and rules for determination of the products and furthermore the method of detection can not technically and scientifically conclusively differentiate the cream cheese from the dairy spreads.

12. As far as the functionality is concerned I would like to know what is the difference between one product and the other. Cream cheese and dairy spreads are normally used for cheesing or buttering your bread. Both of them can be used indistinctively as pie fillers but of course the baker will ask for cream cheese and not for a dairy spread which is an advantage for the product that is named cream cheese. As previously advised if the final decision is to name this product as cream cheese in my opinion it would have to invariably follow with the word spread, otherwise it is absolutely misleading.
13. Re Doc. 42.827 is a ping pong match with Australia under siege and defending itself on the basis of the CODEX Alimentarius and the IDF rules, and in this context they are right as the product in their opinion and ours as well complies with the rules laid out by both CODEX and IDF. The question again is : Are these rules all right ? or should they be revised in view of the arguments against.
14. Re Doc. 42.828, milk and/or cream and/or whey and/or albumin and/or inclusive vegetable proteins can be coagulated by temperature and acidity the result will always be a coagulum. In fact TOFU is sometimes mistakenly referred as Soy Cheese and again the word cheese implies casein and there is no casein in soy. Normal coagulation of milk is done by rennet and cheeses like Ricotta and similar are coagulated by temperature and lowering of the PH by the addition of acid. You can also coagulate by thermal action without acid but this requires a longer period of time. If you take liquid milk and heat the product and leave it standing warm it will acidify via generation of lactic acid which in turn will drop the pH and consequently coagulate the milk. The important thing that the Australians say is that **CODEX does not attempt to classify product according to protein levels and recent discussions at the IDF suggested that protein may be a necessary factor in coagulation.** It goes on to say that the amount of protein which may have been available at the time of coagulation will remain in the final product. Indeed the wheying off process frequently involves a reduction in the protein level with the exception of the ultrafiltration techniques. As this occurs the amount of protein in the final product will be in direct inverse proportion to the occurrence of other components. If the final product has a high fat content it must by definition have a low protein content irrespective of the amount of protein that was available in the vat at the time of coagulation.
15. Nevertheless if the standardization is controlled, the final product will have whatever minimum level of protein is agreed upon for this type of products. If this level of protein (whatever is agreed upon) is not attained then the cream cheese irrespective of the process becomes a dairy spread. I insist the level of protein is important in order to avoid misleading the buyer with regard clot of blood etc.; the thick precipitate produced when albuminous matter coagulates. What then is the coagulator ? The substance that produces coagulation.
16. Thus if the product is coagulated it goes from fluid to a soft semi – solid mass. This product was liquid at the beginning ? If we centrifuge the milk and we obtain a product with 42% and +- 3,0% of non fat solids and the water content is about 45%, the mass is liquid but thick the rheological properties are different from milk. If we additionally evaporate the water content to a high concentration of fat the product becomes very thick without the addition of rennet or without the acid coagulation. In other words the concentrated cream has +- the same rheological properties as the coagulated product.
17. Protein is a determining factor for cheese in more ways than one, without protein there is no coagulation but the coagulum formed when the protein level is low does not produce a product that texture wise and in its rheological properties is different then the dairy spread itself. So protein is important moreover a product can not be called cheese without the

presence of a substantial amount of protein in the product itself, otherwise in its context it is absolutely misleading.

18. Regarding the maximum level of fat content on a dry basis allowed for cheese production. In this case this is irrelevant, as it is obvious that the product is a high fat product principally used for spreading purposes. The fat accounts for lipolysis which together with the proteolysis help to develop the flavour. Excess amounts of fat will only contribute to give the product a more buttery nature (flavour and texture wise) especially when the protein level is negligible.
19. The water – protein ratio is directly related to the protein behaviour in water in relation to their spatial structure and their physic-chemical properties and of course in the end the water-protein ration also affects other functional properties of proteins such as rheological behaviour, thickening, gelling, emulsifying and foaming properties. In this case it is a very important factor but does not affect the issue in question with regard to the classification of the product and its heading.
20. This brings us to the IDF Summary Information (extract from Doc. 42.040) wherein cheese is defined in item 8 and in paragraph 12 they say that the three products referred by Japan satisfy all the criteria in paragraph 11 (whey protein/casein ratio does not exceed that of milk (cream) used; and that it contains 60 % milk fat in dry matter, minimum 35 % dry matter and minimum 67 % moisture on a fat – free basis), to be considered cheese provided that they have a texture comparable with fat of a semi solid used in the codex definition.
21. It goes on to say that the Codex definition of cheese is still a draft and it awaits finalization by the Codex Alimentarius Commission in July 1999.
22. In the following page Annex II to Doc. 42.805 item PROTEIN it says : **CODEX does not attempt to classify products according to protein levels.** The only mention of protein in the CODEX provisions refers to a ratio between whey protein and casein. There is no mention of quantitative requirements for protein, either maximum or minimum. The products in question, to the product. The nutritious value of the dairy spread versus the cream cheese with the same analysis does not in any way reflect any difference and in consequence the utilisation of the name cream cheese is completely unreal in regard tot he product offered.
23. I would think that in all fairness the name spread should invariably accompany the word cream cheese as this automatically infers the spreadability of the product and consequently the amount of fat and/or water have been modified from their original form in order to allow the product to be semi – solid and therefore spreadable, outstretchable or in anyway expandable. The idea is not only to comply with the regulations but definitely avoid misleading information.”

* * *

COMMENTS FROM THE IRISH CUSTOMS ADMINISTRATION

1. "With regard to the classification of "High Fat Cream Cheese" (Doc. 42.850, Annex A/13), three product samples were submitted by Australia and tested by the Irish Administration. The test results show these samples have protein contents ranging from 2.5 to 1 %. Inspection of the products indicated that they had a pale white aspect similar in colour to "Philadelphia Cheese". Tasting led to general agreement that Sample A containing 2.5 % protein had a slight granularity before melting in the mouth. Samples B & C instantly melted in the mouth and had a mouth feel similar to butter or spreads. At fridge temperature all samples had a slightly crumbly texture.
2. We would find it difficult to say that any of the three products sampled could be considered as a cheese. Equally we would find it difficult to consider the products to be spreads as defined in Legal Note 2 (b) to Chapter 4, consisting of a water in oil emulsion.
3. On standing at room temperature for a day, Samples B & C and to lesser extent Sample A changed texture and developed the typical yellow look of a butter or spread and also developed into a water in oil emulsion."

* * *

COMMENTS FROM THE FRENCH ADMINISTRATION"Analysis sent by France

Samples sent by the Australian Dairy Corporation

Sample A : Double Mascarpone

Sample B : Triple M Cheese

Sample C : High Fat Cream Cheese

	A	B	C
Texture	Semi-solid Butter-like consistency, but smoother and containing small clots A liquid phase has separated from the main mass	Soft consistency Smooth, clot free texture Appearance : between butter and cream A single phase	Similar consistency to butter, but slightly softer Clot-free A very slight liquid phase has separated from the main mass
Emulsion	Water-in-oil	Water-in-oil	Water-in-oil
Smell	Similar to cheese	Similar to cheese	Butyric smell"

* * *

COMMENTS FROM THE UK ADMINISTRATION

"Samples were received 9/4/99 in a cold box. The samples in plastic pots were labelled :

Sample A : "Double Mascarpone", Murrembidgee Dairy Products, AQIS number 400, date of manufacture 12/3/1999

- Sample B : "Triple M Cheese", Bonlac Foods, AQIS 528, date of manufacture 18/3/99
- Sample C : "High Fat Cream Cheese", Tatura Milk Industries, date of manufacture 18/3/99 A separate label said : "High Fat Cream Cheese 72 % Butterfat".

No compositional analysis was carried out on the products. There was no reason to doubt the compositional values given by the trader in the documentation sent with the samples. It was assumed that any classification based on composition (protein/fat/moisture) would be on the basis of values supplied by the trader. In the absence of any recognised definition of cheese it was considered that the products should be examined organoleptically, to judge if they had the character of cheese.

The compositional data included with the samples were :

	SAMPLE A	SAMPLE B	SAMPLE C
Moisture	39.7	28.0	26.6
Fat	56.4	70.4	72.5
Protein	3.96	1.06	0.996
Fat on dry matter	93.5	97.8	98.8
Casein : Protein	6.6	1.5	1.4
Ratio	0.91	0.84	0.89

The samples were compared with a bought sample of Mascarpone by a panel of five. The reactions were so diverse that it was difficult to reach a conclusion. However, there was a general opinion that Samples B & C were much greasier than Sample A. Sample A had more texture and maintained its structure in the mouth more readily than B & C, and had a creamy rather than a buttery texture.

Sample A was closer in texture to the Mascarpone but did not maintain its structure quite so readily in the mouth.

The taste of B & C were considered to range from bland to butyric to rancid. Sample A was in general considered to be the most pleasant and creamy product.

Conclusion

1. On visual inspection, taste and mouthfeel there is reason to believe that Samples B & C would not be acceptable on the market for direct consumption as cheese. Sample A might be accepted as being marketable as cheese, but even this did not have the texture/mouthfeel of the mascarpone; it was rather more like thick clotted cream.

2. It is recognised that these subjective judgements could not be prescribed as a basis for classification. However, it should be noted that Sample A has significantly higher protein content on the dry matter (6.6 %); this had not been realised at the time of the tasting. The report of the 14th SSC (Annex a/13 of Doc. 42.800, paragraph 13) indicates that one delegate stated that in his country [Switzerland] cheese must contain a minimum of 7 % protein on the dry matter. Thus there appears to be some relationship between the protein content and the subjectively perceived character of a product as cheese.
3. It is suggested that perhaps a protein on the dry matter criterion could be included in the Nomenclature. This might be :

To be classified as a cheese within the HS Nomenclature a product must have a protein content on the dry matter of not less than [5 %].

It should be recognised that merely satisfying criterion alone would not necessarily be sufficient for a product to be classified as a cheese."

* * *

COMMENTS FROM THE CANADIAN ADMINISTRATION

"The three sample received at the lab were labelled as follows :

- (1) Sample A, "Double Mascarpone";
- (2) Sample B, "Triple M Cheese"; and,
- (3) Sample C, "High Fat Cream Cheese".

Sample A was not received in good condition: it was partly separated (with a milky liquid in the bottom of the container) and was moldy. No further examinations were carried out on this sample.

Samples B and C were organoleptically similar. At room temperature, they were soft, spreadable, pale yellow semi-solids having butter-like aromas and bland fatty flavours. They both readily dispersed in organic solvent (chloroform) and, therefore, would appear to be water-in-oil emulsions.

The analytical results on Samples B and C are as follows:

	Sample B	Sample C
Dry matter	70.7%	74.0%
Moisture	29.3%	26.0%
Total fat	67.8%	72.8%
Fat in dry matter	95.9%	98.4%
Lactose	1.6%	0.7% "

* * *

COMMENTS FROM THE DUTCH ADMINISTRATION

“Sample A : Double mascarpone, processed by rennet coagulation, manufacturer Murrenbidgee Dairy Products.

Sample B : Triple M Cheese, processed by thermal coagulation, manufacturer Bonlac Foods.

Sample C : High fat cream cheese, processed by thermal coagulation.

Parameters of these samples, provided by the Australian Dairy Corporation, are presented in the following table together with parameters of butter, cream and mascarpone.

The sample Nr 19013Y is a sample of a high fat cream cheese manufactured in the Netherlands.

The mascarpone was of Italian origin, bought in a Dutch supermarket.

<u>Sample</u>	butter	cream	19013 Y	A	B	C	mascar- pone
moisture	16	67	36.3	39.7	28.0	26.6	44.9
fat	82	23	59.7	56.4	70.4	72.5	47.0
fat in dry matter	97.6	69.7	93.7	93.5	97.8	98.8	85.1
total protein	0.7	2.8	1.65	3.96	1.06	0.996	4.5
casein	n.d.	n.d.	n.d.	3.60	0.89	0.89	n.d.
whey protein	n.d.	n.d.	n.d.	0.13	0.05	0.01	n.d.
lactose	0.7	3.3	2.3	1.7	1.3	1.4	3.0

n.d.: not determined

Impression of the samples' texture, smell, colour and miscibility with water and oil.

Sample	Miscible with water	Miscible with oil	Smell	Colour	Texture
Butter	-; not miscible water layer clear	+	butter	light yellow	solid, smooth
Cream	+;fully miscible	-	creamy	cream coloured	thick liquid
19013 Y 98	-;not miscible water layer cloudy	+	butter/creamy	light yellow	solid, smooth /granular
A	-;not miscible water layer cloudy	-	creamy/cheese	cream coloured/light yellow	solid, granular, in a liquid layer
B	-; not miscible water layer cloudy	+	light creamy	cream coloured /light .yellow	solid, smooth and a bit granular

C	-;not miscible water layer cloudy	+	light creamy	light yellow	solid, smooth
Mascarpone	+;fully miscible	-	creamy	cream coloured	soft like thick cream

Emulsion type

A) The samples were tested with a water-soluble colouring agent (methyl orange) to test the type of emulsion:

Results :

- Butter is a definite water-in-oil emulsion (no colouring of the sample).
- Cream is a definite oil-in-water emulsion (sample coloured all over).
- All other samples do not give an unambiguous result.

B) Miscibility with water and oil

Samples 19013Y; B and C can be considered to be a water-in-oil emulsion.
Samples mascarpone and cream show the characteristics of an oil-in-water emulsion."

* * *

CODEX GENERAL STANDARD FOR CHEESE (*Relevant parts*)

CODEX STAN A-6-1978, Rev.1-1999

1. SCOPE

This Standard applies to all products, intended for direct consumption or further processing, in conformity with the definition of cheese in Section 2 of this Standard. Subject to the provisions of this Standard, standards for individual varieties of cheese, or groups of varieties of cheese, may contain provisions which are more specific than those in this Standard and in these cases, those specific provisions shall apply.

2. DESCRIPTION

2.1 Cheese is the ripened or unripened soft or semi-hard, hard and extra hard product, which may be coated, and in which the whey protein/casein ratio does not exceed that of milk, obtained by:

- (a) coagulating wholly or partly the following raw materials : milk and/or products obtained from milk, through the action of rennet or other suitable coagulating agents, and by partially draining the whey resulting from such coagulation; and/or
- (b) processing techniques involving coagulation of milk and/or products obtained from milk which give an end-product with similar physical, chemical and organoleptic characteristics as the product defined under (a).

2.1.1 Ripened cheese is cheese which is not ready for consumption shortly after manufacture but which must be held for such time, at such temperature, and under such other conditions as will result in the necessary biochemical and physical changes characterizing the cheese in question.

2.1.2 Mould ripened cheese is a ripened cheese in which the ripening has been accomplished primarily by the development of characteristic mould growth throughout the interior and/or on the surface of the cheese.

2.1.3 Unripened cheese including fresh cheese is cheese which is ready for consumption shortly after manufacture.

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 and/or flavour producing bacteria and cultures of other harmless micro-organisms
- Safe and suitable enzymes
- Sodium chloride
- Potable water

4. FOOD ADDITIVES

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

Unripened cheeses

As listed in the Codex Standard for Unripened Cheese Including Fresh Cheese¹

Cheeses in Brine

As listed in the Standard for Cheeses in Brine (CODEX STAN 208-1999).

Ripened cheeses, including mould ripened cheeses

Additives not listed below but provided for in individual Codex standards for varieties of ripened cheeses may also be used for similar types of cheese within the limits specified in those standards.

7. LABELLING

In addition to the provisions of the Codex General Standard for the Labelling of Pre-packaged 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 cheese. However, the word "cheese" may be omitted in the designation of an individual cheese variety reserved by a Codex standard for individual cheeses, and, in the absence thereof, a variety name specified in the national legislation of the country in which the product is sold, provided that the omission does not create an erroneous impression regarding the character of the food.

7.1.1. In case the product is not designated with a variety name but with the designation "cheese" alone, the designation may be accompanied by the appropriate descriptive terms in the following table:

Designation according to firmness and ripening characteristics		
According to firmness: Term 1		According to principal ripening: Term 2
MFFB %	Designation	
< 51	Extra hard	Ripened
49-56	Hard	Mould ripened
54-69	Firm/Semi-hard	Unripened/Fresh
> 67	Soft	In Brine

MFFB equals percentage moisture on a fat-free basis, i.e.,

¹ Subject to the adoption of this text by the Commission.

$$\frac{\text{Weight of moisture in the cheese}}{\text{Total weight of cheese - weight of fat in the cheese}} \times 100$$

Example :

The designation of a cheese with moisture on a fat-free basis of 57% which is ripened in a manner similar in which Danablu is ripened would be:

"Mould ripened firm cheese or firm mould ripened cheese."

7.2. DECLARATION OF MILKFAT CONTENT

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, (ii) as a percentage of fat in dry matter, or (iii) in grams per serving as quantified in the label provided that the number of servings is stated.

Additionally, the following terms may be used :

<i>High fat</i>	(if the content of FDM is above or equal to 60%);
<i>Full fat</i>	(if the content of FDM is above or equal to 45% and less than 60%)
<i>Medium fat</i>	(if the content of FDM is above or equal to 25% and less than 45%)
<i>Partially skimmed</i>	(if the content of FDM is above or equal to 10% and less than 25%)
<i>Skim</i>	(if the content of FDM is less than 10%)

7.3. DATE MARKING

Notwithstanding the provisions of Section 4.7.1 of the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev.1-1991; *Codex Alimentarius*, Volume 1A), the date of minimum durability need not be declared in the labelling of firm, hard and extra hard cheese which are not mould/soft-ripened and not intended to be purchased as such by the final consumer: in such cases the date of manufacture shall be declared.

7.4. 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 Pre-packaged 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, and in the absence of such a container on the cheese itself. 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 AND ANALYSIS

See *Codex Alimentarius*, Volume 13.