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HARMONIZED SYSTEM
COMMITTEE

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Brussels, 20 April 1999.

CLASSIFICATION OF "HIGH FAT CREAM CHEESE"
AND POSSIBLE CREATION OF A DEFINITION OF CHEESE OF HEADING 04.06
(Item V.4 on Agenda)

Reference documents :

41.475 (HSC/20)	42.727 (HSC/22)
41.600, Annex G/23 (HSC/20 – Report)	42.750, Annex G/12 (HSC/22 – Report)
42.040 (HSC/21)	42.805 (SSC/14)
42.056 (HSC/21)	42.827 (SSC/14)
42.113 (HSC/21)	42.828 (SSC/14)
42.100, Annex H/1 (HSC/21 – Report)	42.850, Annex A/13 (SSC/14 - Report)
42.438 (HSC/22)	

I. BACKGROUND

1. At its 20th, 21st and 22nd Sessions, the Harmonized System Committee examined the questions submitted by Japan concerning the classification of "high fat cream cheese" (HFC) (three specific products) and the possible creation of a definition of cheese of heading 04.06.
2. The products in question are, according to the information submitted by Japan, used as a replacement for cream or butter. They are presented in bulk, but frozen, and are not solid at room temperature. The compositions based on analytical results obtained in Japan, are as follows :

File No. 2701

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	(a)	(b)	(c)	(d)
Moisture content	18.5%	32.7%	39.9%	52.6%
Butterfat content (dry matter)	96.7%	95.1%	91.5%	73.2%
Butterfat	78.8%	64.0%	55.0%	34.7%
Acidity	0.02%	0.03%	0.03%	0.69%
Protein :	0.7%	1.2	1.5%	9.7%
- casein	0.6%	1.0	1.2%	8.7%
- whey protein	0.0%	0.1%	0.1%	0.3%
pH	7.0	6.9	7.1	4.9
Minerals	0.1%	0.2%	0.3%	0.1%
Lactose	1.0%	1.6%	1.8%	1.9%
Form (at room temperature)	Non-solid	Non-solid	Non-solid	Solid

Note : The figures indicated under (d) are for standard cream cheese (for reference only).

3. According to the information submitted, the three products (a) to (c) are manufactured by processing cream with a butterfat content of approx. 42 %. A starter is added, followed by the concentration of the butterfat up to 68 %. This is followed by the separation of the whey before the products are heated to 80 degrees Celsius for one minute and homogenized. They are then cooled to 12 degrees Celsius, filled and stored at 2 degrees Celsius, and finally frozen. The fermentation period is said to be shorter than that of ordinary fresh cheese.
4. The Secretariat had consulted the International Dairy Federation (IDF) regarding the criteria for distinguishing cheese from other similar products (e.g., dairy spreads). A summary of information furnished by the IDF, given in Doc. 42.040, is reproduced at Annex I to this document. The Australian Administration also provided detailed information on the products at issue, which were manufactured in Australia (see Doc. 42.438). A summary of this information is reproduced at Annex II.
5. During the discussion on this question (HSC/22), the Delegate of Australia stressed that it was important to take into consideration the advice of experts in cases, like this one, when determining the classification of goods. The information supplied by the IDF, for example, was very useful since it clearly indicated that the products in question satisfied all the criteria for cheese provided that they had a texture comparable with that of "semi-solid" products.
6. The Delegate of Japan reiterated the following concerns raised by his Administration in Doc. 42.727 : (a) the manufacturing process of HFC would not satisfy the provisions of the CODEX standards; (b) the protein content of HFC was too low for the coagulation of cheese to construct a protein structure which is necessary for trapping fat globules to make a stable mass; (c) the fat content of the products in question was very high; (d) the products were not classifiable in heading 04.06 since they were more or less similar to dairy spreads of heading 04.05. The Japanese expert on cheese products said that there should be a clear distinction between dairy spreads and cheese products. Japan, however, did not wish that well-known cheeses such as Mascarpone be reclassified. He also noted that the fat content mentioned by Australia in Doc. 42.438 was indicated on the basis of the dry matter (see Annex II).

7. The Delegate of the EC stated that he was not in favour of creating a definition for cheese of heading 04.06. He acknowledged, however, that there were borderline cases of cheese products, which could satisfy the criteria for dairy spreads in Note 2 (b) to Chapter 4 and were water-in-oil type emulsions. In such cases, other factors such as collusion, coagulation, suspension, etc. had to be taken into consideration for classification.
8. After discussion, the Committee decided to postpone the final decision on the classification question until its next session. Meanwhile, at the suggestion of the Delegate of Japan, it was agreed that the matter be referred to the Scientific Sub-Committee to examine the following questions :
 - (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 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) 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.
9. It was agreed that fresh samples of the products, to be supplied by Australia, would be tested by the Customs laboratories of Australia, Japan, France and New Zealand and the results forwarded to the Secretariat (by the administrations concerned), in good time, so that the test results could be considered by the Scientific Sub-Committee while formulating its conclusions on points referred to in paragraph 8 above.
10. The Secretariat sent a note to the Australian Administration requesting the transfer of fresh samples of "high cream cheese" expeditiously to the four Customs laboratories of the administrations mentioned in paragraph 9 above for carrying out the necessary tests as requested by the Committee.
11. On the 25 January 1999 the Secretariat received the following message from Australia :
12. "This fax is to confirm that, following discussions with Dr. Sluis (Chairman of the SSC), Australia will not forward samples of the products to the nominated laboratories. The reason for this is that Australia accepts the analysis of the products done by Japan and listed in Doc. 42.805 - para 2. Australia felt that accepting the analysis done by Japan would speed the progress of this issue and that the Scientific Sub-Committee may itself want new, different tests or want the older tests done in a different fashion. Australia therefore felt that it would be sensible to await the deliberations of the SSC - should the SSC decide that a new round of testing is required the samples will be forwarded immediately."

II. EXAMINATION BY THE SCIENTIFIC SUB-COMMITTEE

13. When the Scientific Sub Committee examined the questions received from the Harmonized System Committee, 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 ?

14. 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 type emulsion such as cream, or a water-in-oil-type emulsion such as dairy spreads, but was more likely to represent a mixture of these phases.

15. 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 ?

16. Several delegates stated that the relevance of defining coagulation was still being debated by the 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.

17. 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.

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

Is the protein content a determining factor for cheese ?

19. 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.

20. Other delegates stated that the protein content was very important. It gave structure to the 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.

21. 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 the 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 ?

22. It was confirmed that the IDF had not set a maximum level for fat content in cheese. One delegate informed the Sub-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.

The water/protein ratio in cheese ?

23. 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 ?

24. 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.
25. 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.
26. 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. It was also decided that the results of these tests should be submitted to the Secretariat in due time before the 23rd Session of the Harmonized System Committee in order to prepare a new working document.

27. The following delegations notified the Secretariat that they would like to participate in the test mentioned above : Austria, Canada, Finland, France, Ireland, Japan, Mexico, the Netherlands, the United Kingdom and the United States.

III. ACTION TAKEN BY AUSTRALIA

28. On 12 April the Secretariat received the following samples from the Australian Dairy Corporation; sample A : "Double Mascarpone", sample B : "Triple M Cheese" and sample C : "High Fat Cream Cheese", together with the results of the analyses which were made by Dairy Technical Services Ltd. in Australia. At the same time a confirmation was received from the Australian Customs Service indicating that samples were also sent to the "interested delegations".
29. According to the comments accompanying the above-mentioned samples, they are "solid at room temperature, reasonably stable well beyond the date of manufacture, whiter than Australian dairy spreads and have a texture and smell similar to that of standard cream cheese. Sample A was produced using traditional rennet coagulation methods while Samples B and C have been produced using thermal coagulation methods."

IV. SECRETARIAT COMMENTS

30. Just prior to the last Session of the SSC, the Secretariat received further comments from Australia (Doc. 42.828). Due to their late arrival, the comments were reproduced only in the English language. These comments have now been translated into French and are therefore reproduced in Annex III to this document (in both languages).
31. The results of the analysis carried out by Dairy Technical Services Ltd. are reproduced in Annex IV to this document. The samples of "Double Mascarpone", "Triple M Cheese" and "High Fat Cream Cheese" will be made available to delegates for examination during the meeting.
32. The results of the tests carried out by the administrations mentioned in paragraph 27 above are still awaited. When they become available they will be submitted to the Committee.

V. CONCLUSION

33. The Secretariat is uncertain whether the Committee is in a position to take a final decision on the classification of high fat cream cheese without the test results from the above-mentioned administrations. If it is in a position to decide, the Committee is invited to rule on the classification of "high fat cream cheese" and to express its view as to what further action should be taken with regard to the definition of cheese, taking into account the results of the examination by the SSC and the comments above.

Milk product containing butterfat of 55% to 79%, moisture between 18% - 40 %, protein between 0.5% and 1.5% and whey protein of not more than 0.1%. The product is semi-solid at room temperature and is manufactured by processing cream with a butterfat content of approx. 42%. A starter is added followed by the concentration of the butterfat up to 68%. This is followed by the separation of the whey before the product is heated to 80 degrees Celsius for one minute and homogenized. It is then cooled to 12 degrees Celsius, filled and stored at 2 degrees Celsius, and finally frozen. The fermentation period is shorter than that of ordinary fresh cheese. (This description has to be completed by adding further details to be provided by the laboratories and Member Administrations).

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IDF SUMMARY INFORMATION

(Extract from Doc. 42.040)

- "8. IDF reports that cheese is tentatively defined by Codex Alimentarius (draft Standard A-6, Appendix VII of ALINORM 97/11) as follows :
- "Cheese is the ripened or unripened solid or semi-solid product 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, skimmed milk, partly skimmed milk, cream, whey cream, or buttermilk, or any combination of these materials, through the action of rennet or other suitable coagulating enzymes, and by partially draining the whey resulting from such coagulation; and/or
 - (b) processing techniques involving coagulation of milk and/or materials obtained from milk which give an end-product which has similar physical, chemical and organoleptical characteristics as the product defined under (a) above."
9. The IDF states that, in general, the whey protein to casein ratio in cheese shall not exceed that of milk used. When this happens, the product is no longer "cheese" but "whey cheese".
10. The draft Codex standard for cheese cited above does not specify any composition of cheese, except for the whey protein to casein ratio mentioned above. More detailed composition criteria are left to subordinated standards for individual cheese varieties. The individual variety "cream cheese" is regulated by such a subordinated Codex Standard (Standard C-31) which is currently being revised by Codex Alimentarius.
11. According to the draft of the revised Codex Standard, the key elements for cream cheese indicated by the IDF are that "it is an unripened, semi-solid or solid milk product obtained by coagulation and having a smooth, spreadable texture with the following composition :
- the whey protein/casein ratio does not exceed that of milk (cream) used; and
 - it contains minimum 60% milkfat in the dry matter, minimum 35% dry matter, and minimum 67% moisture on fat-free basis."
12. According to the IDF, the three products referred by Japan (see paragraph 2 of this document) satisfy all the criteria in paragraph 11 above to be considered "cheese" provided that they have a texture comparable with that of "semi-solid" used in the Codex definition. If that is the case, the products could probably be classified in heading 04.06 as cheese. The IDF is doubtful whether these products could be classified under heading 04.03 given that that heading does not cover products concentrated by whey drainage.
13. Regarding a definition of cheese for HS purposes, the IDF suggests that it would be advisable to limit the definition to the Codex Alimentarius reference documents to avoid confusion. However, as the Codex definition of cheese is still a draft, it is recommended that the insertion of such a definition should await finalization by the Codex Alimentarius Commission in July 1999."

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SUMMARY INFORMATION SUBMITTED BY AUSTRALIA
(Extract from Doc. 42.438)

PRODUCT	Characteristics of High Fat Cream Cheese
MOISTURE	No minimum levels are listed for actual mass percentages for moisture in cheese. However, the CODEX draft Standard for cream cheese does specify minimum moisture content of 67% on fat-free basis.
MINIMUM FAT IN DRY MATTER	60%
MINIMUM DRY MATTER	35%
BASIC INGREDIENT	Milk or milk products
PROCESS	Coagulation and separation of whey facilitating a concentration of milk solids
TEXTURE	Solid or semi-solid
PH	Fermentation is not necessarily an integral part of cheese making, as "coagulation" can be achieved in many ways besides by the production of lactic acid by lactic bacteria. CODEX provisions do not mention pH levels, as they are not necessary considerations in describing "cheese".
FAT	CODEX makes no mention of fat maxim for cheese. Only minimum levels have been specified for certain varieties of cheese. The products under consideration fall within the CODEX requirement.
PROTEIN	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, however, meet the draft CODEX requirement that whey protein ratio does not exceed that of milk. In high fat products the protein levels will by definition be very low.
PHYSICAL STATE	Unlike dairy spreads, which are principally in the form of an emulsion of the type water-in-oil, four physical states (collusion, suspension, solution and emulsion) occur within cheese, including the products under discussion.

<p>TEST METHOD</p>	<p><i>A test method to conclusively differentiate between cream cheese and dairy spreads on the basis of the physical state of fat is not possible</i> because there will always be some propensity for isolated pockets of fat aggregation to occur during cheese manufacturing and storage.</p>
<p>SHELF LIFE AND STORAGE</p>	<p><i>CODEX does not attempt to set shelf life and storage conditions for cheese.</i> The appropriate specifications will vary considerably between cheese varieties. <i>For fresh cream cheeses, shelf life is relatively short.</i> It is recommended that these cheeses be kept chilled or frozen in certain cases.</p>
<p>COLOUR</p>	<p><i>CODEX does not define the colour of cheese.</i> However, for cream cheese, it requires that it have "...a white to light cream colour" in contrast to butter and dairy spreads which are generally a darker shade of yellow.</p>
<p>PERMITTED ADDITIVES</p>	<p><i>The draft CODEX Standards for cream cheese and dairy spreads differ in the lists of additives,</i> which are allowed. However, none of the additives can be used to define either cream cheese or dairy spreads.</p>
<p>FUNCTIONALITY</p>	<p><i>Cream cheese can be put to a number of uses (see Annex, paragraph</i>"The fact that "cream or butter" may, at times, be substituted, is purely coincidental. These are, however, inferior substitutes for cream cheese. <i>Very little cream cheese is consumed directly (as is the case with hard rather than semi-soft varieties).</i> It is the overall functionality of the variety, which makes it such a versatile source of component for a wide range of end usage."</p>

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Australian Notes for WCO Scientific Sub-Committee on the issues raised in Doc.42.805E

**“CLASSIFICATION OF HIGH FAT CREAM CHEESE AND POSSIBLE CREATION
OF A DEFINITION OF CHEESE OF HEADING 04.06”**

A) TERMS OF REFERENCE

1. The Australian Administration notes that the Scientific Sub-Committee has been asked to examine eight questions. Our specific comments in respect of each of the questions are as follows.

(i) Whether cheese could be a water-in-oil type emulsion and, if so, how to make a distinction between water-in-oil type dairy spreads and water-in-oil emulsion type cheese.

2. Head Note 2(b) of Chapter 4 of the Customs Tariff notes that “Dairy Spreads means a spreadable emulsion of the water-in-oil type” This means that for a product to be a dairy spread it must always be a water-in-oil type emulsion. If there is any oil-in-water particles present then it must, by definition, be something other than a dairy spread.

3. Cheese, however, may be water-in-oil but is more likely to be a mixture of this and other phases of water and oil. (Refer to paragraphs 17 through 22 of the Annex to Doc. 42.438 E) If any state other than water-in-oil exists then it is not a dairy spread but could be a cheese.

4. The Australian Administration is not aware of any internationally recognised test of the state of the phase of water and oil emulsions in cheeses.

(ii) Meaning of coagulation in the context of production of cheese and whether heating is regarded as a coagulating agent

5. There is a body of discussion which concludes that heat treatment is an acceptable coagulating agent. In advice for discussion at the IDF Group D31 (Definitions and Standards for Cheese) meeting in Toronto on 5 November 1998, the IDF stated that “There are no specific methods developed to check whether coagulation has occurred. Coagulation is a very broad term, which also would include flocculation (eg fermented milks). Coagulation can be achieved by lowering pH (microbiological fermentation or chemical acidification) or by heating the milk.”

6. It is also not strictly correct in describing the coagulation method for this product as simply ‘heat’. It is more accurately described as ‘thermal methods’ involving a combination of varying temperatures and conditions to effect coagulation, with removal of whey facilitating concentration of milk solids, and homogenisation. Moreover it must be noted that some manufacturers use rennet as the agent of coagulation.

(iii) Whether the protein content was a determining factor for cheese

7. Codex does not attempt to classify product according to protein levels. Recent discussions at the IDF have suggested that protein may be a necessary factor in coagulation. This discussion does not, however, conclude that the 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 (although this might not be the case if

ultrafiltration techniques have been employed). 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.

(iv) The maximum level of fat content on dry basis allowed for cheese products

8. There exists a wide range of cheese products. Where appropriate, the IDF and Codex have defined products on the basis of minimum fat levels. Not even for specific varieties, however, has the IDF or Codex ever stipulated maximum fat levels. This has never been, and nor should it be, a factor in determining whether a product is cheese.

(v) Water/protein ratio

9. This is not relevant to defining cheese. In part (ii) of para 4 of Doc. 42.727E the Japanese administration has put forward the hypothesis that this may be a measure of the degree of coagulation. We are not aware of any scientific basis for this statement.

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

10. As outlined in paragraphs 2 to 4 above, this could only be the case if the products are always a water-in-oil type emulsion. The Japanese administration has noted in paragraphs 2 and 9 of Doc. 42.727E that for at least two of the three products they have tested the phase has been variable. These products could not, therefore, fall under the definition of dairy spreads. More importantly, they clearly meet the definition within Chapter 4 Note 3 and must, therefore, be classified as cheese in 04.06.

B) COMMENTS ON SECRETARIAT PAPER 42.805E

11. Reference documents. On receipt of Doc. 42.727E just prior to the November 1998 HSC meeting the Australian administration prepared a response to the points raised by Japan. As there was not sufficient time to circulate the paper formally, it was provided to delegates prior to or at the meeting. For the purpose of completeness a copy of that paper is attached.

12. Paragraph 2 states that *The products in question are used as a replacement for cream or butter.* This assertion is somewhat misleading. While it is true that the products in question sometimes have similar applications to other dairy and non dairy food products, these specific cheeses are required by end users because of the specific functionality that they bring to the manufacture of specific end products. They are in fact used for purposes similar to those for normal or double cream cheese. It could be argued that cream or butter are sometimes used as inferior substitutes for these.

13. The Australian Administration accepts the analytical results set out in the table in paragraph 2. It is noted, however, that only three samples (all from Australia) are mentioned.

14. Paragraph 3 states that *according to information submitted* the products are manufactured according to one specific process. This is incorrect. Manufacturers employ different techniques to produce the product (refer paragraph 4 of Doc. 42.056E and paragraph 8 of the Annex to Doc. 42.438E).

15. To our knowledge “high fat cream cheese” like products are produced by at least five companies in Australia, two in Hungary, two in the United States and possibly one each in the United Kingdom and New Zealand. Each of these would have their own unique process and many would have more than one process to meet the varying requirements of end users. Some examples of processes which could produce the results described are set out in the flow charts attached. (*Will be available in the meeting room*).

16. Paragraph 5 notes that the IDF concludes that the products are cheese *if they have a texture comparable with that of semi solid products*. This fact was demonstrated at the HSC meeting on 21 March 1998. Paragraph 5 of Annex H/1 to Doc 42.100 notes that “The samples presented were not frozen and were solid”. It does therefore meet the IDF’s requirement to be defined as cheese. While these cheese are usually shipped in frozen form, they remain in a solid state for more than 48 hours at room temperature. This is a significant difference between these cheeses and dairy spreads.

17. Paragraph 6 (a) *the manufacturing process of HFC would not satisfy the provisions of CODEX standards*. This is not correct. The manufacturing process of the product does satisfy the CODEX standards. (Refer paragraphs 5 and 6 of Doc. 42.056 and paragraphs 1 to 8 of the Annex to Doc. 42.438E). Codex defines cheese as follows.

“Cheese is the fresh or matured solid or semi-solid product obtained by:

- (a). coagulating wholly or partly the following raw materials: milk, skimmed milk, partly skimmed milk, cream, whey cream, or butter milk, or any combination of these materials, through the action of rennet or other suitable coagulating enzymes, and by partially draining the whey resulting from such coagulation: and/or
- (b). processing techniques involving coagulation of milk and/or materials obtained from milk which give an end-product which has similar physical, chemical and organoleptic characteristics as the product defined under (a) above.”

18. High fat cream cheese is a fresh semi-solid to solid product. It is made by the coagulation of milk products. Coagulation can be done through the action of rennet. Whey resulting from the coagulation is drained off. In these circumstances it is completely compatible with part (a) of Codex. However, it is more economic to make the product using thermal coagulation. The resulting product has the same characteristics as the product defined in (a). In this case (which accounts for most high fat cream cheese manufacture) the product fully meets the requirements of part (b). It has been suggested that these products do not have the same “physical chemical and organoleptic characteristics” as the products made under (a). Observation, expert and trade advice will clearly show that they do have the required characteristics.

19. The Australian position is that CODEX (and through it the IDF) are the most appropriate body to determine such definitions and that compliance with CODEX is paramount.

20. Paragraph 6 (b) states that *the protein content of HFC was too low for coagulation of cheese to construct a protein structure which is necessary for trapping fat globules to make a stable mass*. Whether or not protein is a necessary element for coagulation to occur is an issue still being debated within the IDF. To date the discussions have been inconclusive. This is, however, irrelevant because even if it is stipulated that protein is necessary for

coagulation to occur it is still a wide leap of logic to assume that all of the protein will still be in the final product after wheying off.

21. Paragraph 6 (c) *the fat content of the products in question was very high.* We agree that it is high. We do not, however, agree that this is a criterion for defining it as something other than what it is - cheese.

22. *the products were not classifiable in heading 04.06 since they were more or less similar to dairy spreads of heading 04.05.* "More or less" is not the issue here. They do not always meet the requirement of being a water-in-oil type emulsion and as such can not be classified under heading 04.05. Paragraphs 12 and 13 of Doc. 42.438 provides the distinction between dairy spreads and cheese.

23. Paragraph 6 (d) *Japan, however, did not wish that the well-known cheese such as Mascarpone be reclassified.* If "high fat cream cheese" is reclassified such a reclassification of other cheeses is inevitable. The Australian administration has some difficulty with the generic term "high fat cream cheese". The product under question is also traded under such descriptions as triple mascarpone, double mascarpone, triple cream cheese and neufchatel. These, and other varieties of high fat cheese, could be affected by any reclassification of "high fat cream cheese".

24. Paragraph 11 quotes John Stauffer (edited by YH Hui) that *all cheese products are oil/water emulsions . . .* We agree with the statement that all cheeses are an emulsion of oil and water and believe that this is what Mr Stauffer means. In this article, Mr Stauffer is not attempting to determine whether cheeses are water-in-oil or oil-in-water type emulsions. He is simply saying that the emulsion is of water and oil. As the particular section is discussing the role of pasteurisation, there would have been no reason for Mr Stauffer to differentiate between the various states to make his point and nor has he done so.

25. Paragraph 14 *heat is not mentioned as one of the coagulants in cheese making in any of the literature consulted by the Secretariat.* Prior to the November 1998 meeting the Australian administration gave the Secretariat a copy of the IDF Group D31 paper referred to in paragraph 5 above. In this regard, however, it is important to note:

- a) the correct description of the process for these products is usually "thermal" (i.e. varying temperatures) rather than "heat"
- b) the product can also be made using rennet and so could meet part (a) of the Codex definition. It is only in applying part (b) where the "other techniques" referred to are in this case "thermal treatment".

26. Paragraph 17. *The above indications seem to suggest that the lower the amount of protein in cheese the softer it will be.* This conclusion can not be drawn from the preceding paragraphs and is indeed incorrect. It is also irrelevant as the hardness of the product is not in question. The HSC has agreed that it is solid.

27. Paragraph 19. It is not clear what this paragraph means or what the reference to "w/o" is about. If it means that proteins are necessary for the formation of cheese then this is something which is currently being debated within the IDF (see paragraph 20 above). Moreover, this is irrelevant to the protein level of the resulting product. Protein levels are not mentioned in CODEX, nor are they mentioned in Chapter 4 Notes 2 or 3.

28. Paragraphs 22 to 24. It is difficult to understand the relevance of this. The article from YH Hui referred to does not attempt to make any statements about the relevance of the protein/water ratio in cheese, it only talks about the relationship between milk proteins and water generally.

29. Paragraph 25 second sentence. *The products in question seem to be spreadable (non-solid).* The products are usually spreadable but as most cream cheeses and other soft cheeses are spreadable this is not an issue. It is incorrect, however, to describe the product as “non-solid”. That the product is solid was established by the HSC in March 1998 (see paragraph 16 above).

30. Paragraph 25 last sentence. *The main question to be considered, therefore, is whether or not the products at issue are water-in-oil emulsions.* See paragraphs 2 to 4 above and, as noted in paragraph 10 above, the Japanese analysis has determined that two of the three products tested have phases other than water-in-oil. The “main question” has been answered.

31. Annexes. The Australian administration agrees that the annexes are a fair representation of the information provided by the IDF and Australia. We note in reference to the last sentence of the IDF annex, however, that it should be borne in mind that the Codex standards are almost always in draft form. As soon as they are agreed they are again subject to revision. It is necessary for this process to be dynamic to ensure that the definitions keep in step with new technologies and new products as they come on to the scene.

32. Notwithstanding all of the above, it is expected that most trade in high fat cream cheese will be below the 72% fat level (plus or minus a tolerance of 2%). While this decision has been taken at the commercial level by manufacturers in response to changing demand from Japanese customers, the Australian Government does not believe that a case has been made for regulations setting additional physical limitations on product which is legitimately manufactured as cheese.

33. Australia does not favour distinctions based on fat content, nor on protein levels – these are matters that should be determined by IDF and CODEX, but IF a distinction was thought necessary it should be based on advice from the IDF.

C) CONCLUSION

34. There have been many issues raised in the discussion on these products. Many of these issues are not relevant to the matter under consideration which is – are these products cheese? The answer to that question is “yes”. These goods are regarded by the sole international expert body (the IDF) as cheese – see Doc. 42.040 paragraph 12. The products meet the definition of cheeses as provided by the international definition in CODEX. The products comply with Chapter 4 Note 3 and must therefore be classified as cheese.

x

x x

	A (Double Mascarpone)	B (triple M Cheese)	C (High Fat Cream Cheese)
Moisture	39.7 %	28.0 %	26.6 %
Fat	56.4 %	70.4 %	72.5 %
Fat (MFB)	93.5 %	97.8 %	98.8 %
Acidity	0.37 %	0.03 %	0.05 %
Protein (TN x 6.38)	3.96 %	1.06 %	0.996 %
Total nitrogen	0.621 %	0.166 %	0.156 %
Non protein nitrogen	0.037 %	0.018 %	0.015 %
Non casein nitrogen	0.057 %	0.026 %	0.017 %
Casein (casein nitrogen x 6.38)	3.60 %	0.89 %	0.89 %
Whey protein (W.P.N. x 6.38)	0.13 %	0.051 %	0.013 %
ph	6.07	6.72	6.82
Ash @ 550 °C	0.5 %	0.2 %	0.2 %
Lactose (monohydrate)	1.7 %	1.3 %	1.4 %
