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CODEX ALIMENTARIUS COMMISSION  
Ninth Session, Rome, 1972  
REPORT OF THE NINTH SESSION  
OF THE  
CODEX COMMITTEE ON COCOA PRODUCTS AND CHOCOLATE  
Neuchâtel, Switzerland  
27 September - 1 October 1971

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### SUMMARY STATUS OF WORK

(prepared by the Codex Alimentarius Commission Secretariat)

#### 1 Status of standards and papers under consideration by the Committee

##### (i) Standards

- Proposed draft Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press cake and Cocoa Dust (Cocoa Fines) for use in the manufacture of cocoa and chocolate products (Appendix II) at Step 5.
- Proposed draft Standard for Cocoa Butters (Appendix III), at Step 5
- Proposed draft Standard for Cocoa Powder (Cocoa) and Sweetened Cocoa Powder (Sweetened Cocoa) (Appendix IV) at Step 5
- Proposed draft Standard for Chocolate (Appendix V), at Step 5

- Proposed draft Standard for Composite and Flavoured Chocolate (Appendix VI), at Step 4.
- (ii) Other documents
- Amendment proposed by the Netherlands to the Proposed Draft Standard for Cocoa Powders (Cocoa) and Sweetened Cocoa Powders (Sweetened Cocoa) (Annex to Appendix IV) to be revised for consideration at the 10<sup>th</sup> session (paragraph 38).
  - Provisions for White Chocolate (Proposal made by the Swiss Delegation) (Appendix IX) (for comments, paragraph 69).
  - Hygiene requirements (in preparation by the delegations of the U.S.A. and the Netherlands), to be considered at a future session (paragraph 68).
2. Matters of interest to the Codex Alimentarius Commission
- Examination of Standards at Step 5 paragraph 65 of the Report and Appendices II, III, IV and V.
3. Matters of interest to other Committees

<u>Codex Committee</u>	<u>Paragraphs in the Report</u>	<u>Reference in the Standards</u>
Executive Committee	70	
Food Additives	15-17, 31-32, 54-55	pp.18,26,27,36,37,43
Pesticide Residues	27	
Methods of Analysis and Sampling	67	pp.20,24,28,29,30,31 38-40
Food Hygiene	68	
Food Labelling 1/	59	pp.23,27,37,38

1/ See also Report of the Eighth Session of the Codex Committee on Cocoa Products and Chocolate, ALINORM 71 /10, paragraph 52.

REPORT OF THE NINTH SESSION OF THE  
CODEX COMMITTEE ON COCOA PRODUCTS AND CHOCOLATE  
Neuchâtel, Switzerland, 27 September - 1 October 1971

1. The Ninth Session of the Codex Committee on Cocoa Products and Chocolate, under the chairmanship of the Government of Switzerland, was held in Neuchâtel from 27 September to 1 October 1971. Mr. J. Ruffy was Chairman for the session. The Secretariat consisted of representatives of FAO and the office of Mr. J. Ruffy.

Representatives from 17 countries were present:

Austria	Italy
Belgium	Netherlands
Brazil	Nigeria
Egypt, Arab Republic of	Sweden
Finland	Switzerland
France	United Kingdom
Germany, Federal Republic of	United States of America

Ghana  
Ireland

Venezuela

Observers were present from the following 6 international organizations:

- Association of Official Analytical Chemists (AOAC)
- European Economic Community (EEC)
- Cocoa Producers' Alliance (COPAL)
- International Organization of Consumers' Unions (IOCU)
- International Organization for Standardization (ISO)
- Office International du Cacao et du Chocolat (OICC) (see Appendix I for the List of Participants)

#### Election of Rapporteur

2. The Committee agreed to elect Mr. L.G. Hanson (U.K.) as Rapporteur.

#### Adoption of Provisional Agenda

3. After a slight re-arrangement in the order of business the Committee adopted the Provisional Agenda.

#### Matters arising from the report of the Eighth Session of the Codex Alimentarius Commission and from the reports of the 1970-71 sessions of the Codex General Subject Committees

4. The Secretariat drew the attention of the Committee to paragraph 174 of the report of the Eighth Session of the Commission (ALINORM 71/31) where the Commission had noted that the FAO Model Ordinance and Code of Practice on Cocoa Beans dealt with the quality grading of cocoa beans intended for any use. The Commission had further noted that those parts of the Model Ordinance which laid down the minimum qualities of cocoa beans suitable for the manufacture of cocoa products and chocolate, had been introduced into the draft Codex standards after discussions during several sessions of the Committee. The Committee agreed that the matters arising from the reports of the Codex General Subject Committees would be dealt with during the consideration of the appropriate parts of the standards.

#### Examination of Results of the International Study on Unsaponifiable Matter in Cocoa Butter

5. The Committee had before it a document entitled "International Study. Cocoa Butter: Unsaponifiable Matter" (CX/CPC 71/2) prepared by Mr. Meyers (U.S.A.) which contained the results of a series of analyses on the three categories of cocoa butters regarding unsaponifiable matter, in accordance with the agreement reached during the last session of the Committee (paragraph 33 ALINORM 71/10). Mr. Meyers informed the Committee that supplementary information would be available during the course of the session but that

it would not affect the basic conclusions set out in the document which were that the results of the analyses were as yet inconclusive and could not therefore provide final figures for inclusion into the standards. The Committee agreed with this conclusion and set up a small group of technical experts to draw up detailed procedures so as to ensure that the results of further analyses would provide the

required information. The report of the group is attached as appendix VII to this report. The Committee endorsed the conclusions of the report and invited governments to co-operate in the study.

#### Format and number of the standards

6. The Committee considered the question of the need for separate standards for the raw materials (coca beans, cocoa butter, etc.) used in the manufacture of cocoa and chocolate products and noted that the present drafts would require editing amendments e.g. by including a scope section if they were to be retained. Some delegations thought that, although there was a need for detailed provisions for cocoa butter because they would be an essential feature of the control of the composition of the end products (cocoa, chocolate, etc.), there was no such need for detailed provisions for cocoa beans. Any detailed provisions for cocoa beans would not be controllable or detectable in the final product and could not be justified under the general principles of the Codex. These delegations also pointed out that the FAO Model Ordinance and Code of Practice for Cocoa Beans already contained detailed provisions and that all that was necessary in the Codex Standards for cocoa and chocolate products was a simple definition of cocoa beans.
7. After considering the provisions relating to cocoa beans in the light of government comments, however, the Committee decided to retain all the draft standards but to make it clear that the draft standards relating to raw and semi-processed materials (i.e. cocoa beans, cocoa press-cake, etc..) and cocoa butter applied only to those products when sold for use in the manufacture of cocoa and chocolate products for human consumption.

#### Proposed Draft Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines) for use in the manufacture of Cocoa and Chocolate Products (Appendix II)

8. The Committee agreed on a new title and scope section for the draft standard and the new versions are included in Appendix II to this Report.

#### DESCRIPTION

9. The description of Cocoa (Cacao) Beans was simplified by the deletion of the term "reasonably uniform in size" and by the inclusion of the word "practically" in place of the word "reasonably" and "virtually". The Committee was informed that in some countries cocoa beans were used in the unfermented state and therefore decided to amend the description in order to take this provision into account. The Committee further decided to delete some of the definitions (e.g. Foreign Matter, Piece of Shell) as they were considered unnecessary,

#### ESSENTIAL COMPOSITION AND QUALITY FACTORS

10. The Committee considered the figures for the minimum quality of cocoa beans in the light of government comments. These figures had been taken from Grade II of the Model Ordinance and it was emphasized that they had been expressly applied to beans for the manufacture of semi-processed and finished cocoa products, press cocoa butter and expeller cocoa butter but that they had not been applied to refined cocoa butter because they were not relevant to that product and because compositional criteria were laid down in the standards for cocoa butter.

11. A majority of delegations considered that it was necessary for the protection of the consumer of the finished cocoa and chocolate products that specific tolerances should be laid down for the maximum permitted percentages of mouldy, slaty, insect-damaged, germinated or flat beans. Other delegations were not convinced that these provisions were necessary and the observer from COPAL and the delegation of Nigeria, supported by the delegations of Brazil and Ghana, said that in their view the figures were not entirely realistic and

should be in keeping with current commercial practice. The delegation of the U.S.A. drew the attention of the Committee to its written comments in which the tolerances had been rearranged so as to represent a descending order of quality as follows: Mouldy; insect damaged; slaty; flat and germinated. The U.S. delegation added that the following figures (which would be the equivalent of Grade II of the FAO Model Ordinance and Code of Practice) had served satisfactorily as a basis for the control of imports of cocoa beans into the U.S.A. for a considerable period of time:

- "(a) Mouldy beans, max. 4% by count ) but not more  
(b) Insect damaged beans, max. 4% by count ) than 6% together  
(c) Slaty beans, max. 12% by count  
(d) Germinated and flat beans, max. 3% by count".

12. The Committee finally decided to maintain the figures in the draft standard since they were based on those in the FAO Model Ordinance and Code of Practice.
13. The Committee also decided to leave the moisture content of cocoa (max. 7.5%) unchanged. The delegation of the U.K. informed the Committee that higher figures had been found in some shipments of cocoa beans because of the tendency to take up moisture in certain conditions. The delegation of Austria emphasized that a low moisture content was important and informed the Committee that its law specified a figure of 7%.
14. The Committee did not accept a proposal from the delegation of Italy to include a minimum fat content of 20% in cocoa dust (cocoa fines). The Committee noted that the refined cocoa butter manufactured from this raw material would have to comply with the compositional criteria (e.g. unsaponifiable matter) of the standard for cocoa butter and that the fat content of cocoa dust (cocoa fines) was, in effect, also controlled by good manufacturing practice.

#### FOOD ADDITIVES

15. The Committee took note of the endorsements of the Codex Committee on Food Additives and of their remarks about phosphates. Several delegations said that phosphoric acid was not used in their countries; that it was not technologically essential and, moreover, that there was a risk to the consumer which could be avoided by the use of other neutralizing agents. Other delegations said that in their countries the authorities did not regard the intake of phosphates as being potentially hazardous and they endorsed the written comments of New Zealand which stated that phosphoric acid was more effective at a lower rate of use than the other permitted neutralizing agents. The Committee decided therefore to include phosphoric acid at approximately half the maximum level of the other agents, i.e. 0.25% m/m and to ask the Codex Committee on Food Additives for further advice about this matter. It was noted that the level of phosphate in the diet varied from country to country and that the contribution from cocoa was less

significant than from other foods and that the inclusion of phosphoric acid in the standard would permit present practice to be continued but that it would be unlikely to lead to any additional usage. The delegations of Austria, Belgium, France, the Federal Republic of Germany, Italy and Switzerland, reaffirmed their reservation about the use of phosphoric acid. The delegation of France also stated that it could not agree to the inclusion of ammonium salts of phosphatidic acids in the list of permitted emulsifiers.

#### Flavouring Agents

16. The Committee noted that the Codex Committee on Food Additives had endorsed part of the provision for "Flavouring Agents" but that the words "and synthetic flavours appearing in the Codex list" had been placed in square brackets by that Committee at its Seventh Session. Several delegations stated that they were in favour of these words being included, as synthetic flavours had been used for some time in their countries. These flavours would not be included in the Codex list unless considered to be safe-in-use and, in the view of these delegations, their use was justified by consumer taste and preferences. Other delegations said that they were opposed to their inclusion in the standard

because, with the exception of ethyl vanillin, synthetic flavours were not necessary unless they were the equivalent of natural flavours. The Committee decided to put a cross-reference to the relevant paragraph of the report as a footnote in the standard and to request governments in favour of their inclusion, to provide information to the Committee as to the extent of current usage of such synthetic flavours together with lists where available. The Committee decided that similar action should be taken on the provision relating to "Flavouring Agents" in each of the standards.

#### CONTAMINANTS

17. The Committee decided to remove the square brackets for the maximum levels of Copper, Arsenic and Lead, After discussing the government comments and the results of recent analyses relating to the figures for Copper, the Committee agreed to reduce the figure for press cake from 60 mg/kg to 50 mg/kg.

#### HYGIENE

18. The Committee agreed to replace paragraph 5.3 by the new wording which had been endorsed by the Eighth Session of the Codex Committee on Food Hygiene (paragraph 20, ALINORM 72/13) and which reads as follows:

"When tested by appropriate methods of sampling and examination, the product shall not contain any substances originating from micro-organisms in amounts which may be toxic".

#### Proposed Draft Standard for Cocoa Butters (Appendix III)

#### DESCRIPTIONS

19. The delegation of the U.S.A. drew the Committee's attention to an apparent conflict between the definitions for expeller butter in ALINORM 71/10, Appendix III, Subsection 2.3 and expeller press cake which appeared in Appendix II, Subsection 1.5. The latter provides that expeller press cake may be made by applying the expeller process to "cocoa beans with or without the addition of cocoa nib, cocoa press cake and cocoa dust or fines".

20. Several delegations pointed out that it was not the intention of the Committee, to introduce expeller press cake, or dust or fines into the raw material used for processing expeller cocoa butter and that, at its Eighth Session, the Committee had agreed that where expeller press cake, dust or fines were used in the processing of cocoa butter, the product obtained should fall within the category of "Refined Cocoa Butter". The Committee agreed to a revised definition and a consequential revision to the definition of refined cocoa butter.

ESSENTIAL COMPOSITION AND QUALITY FACTORS

21. The Committee examined the values proposed for the three different categories of cocoa butter. It recognized that, except to a certain extent as regards the Press Cocoa Butter, several figures should be still left in square brackets due to a lack of information. The Committee agreed to a proposal made by the delegation of the U.S.A. that the samples collected for the International Study on Unsaponifiable Matter in Cocoa Butters might also be used for other determinations and the Committee accepted the recommendations in the Report of the Ad Hoc Working Party (Appendix VIII) that they should be used for Refractive index, saponification value, iodine value and fatty acid composition. Such studies should be conducted using the appropriate Codex methods. In consultation with the president of the Technical Committee of Analysis of the OICC, the Committee agreed to request governments to carry out a series of analyses on cocoa butters in accordance with the procedure described in Appendix VIII, paragraph 1, subparagraph (ii).

Press cocoa butter

22. The Committee agreed to delete the square brackets of the values for Melting behaviour (Fincke). The Committee was informed that a satisfactory method had been now developed for the Extinction value at 270 nm and that a maximum figure for this value should appear in the standard when information is available.

A tentative proposal was made by the delegation of the Federal Republic of Germany for a maximum value of 0.12, but the Committee considered it too early to include this value in the Standard. As regards the Blue value and the Fatty acid composition by GLC, the Committee was informed that methods had to be further elaborated. The Committee was informed that a GLC method for fatty acids was also being developed by the Codex Committee on Fats and Oils. The Committee agreed not to delete the square brackets on Blue value and Fatty acid composition.

23. The Committee agreed to include in the report new figures proposed by the delegations of Brazil and Nigeria and to request government comments on these figures. These figures represented the results of recent analyses of Brazilian and Nigerian cocoa butters. They are as follows:

	<u>Brazil</u>	<u>Nigeria</u>
Refractive Index	1.456 - 1.457	1.4560 - 1.4575
Clear melting point	31 - 33°	190 - 195
Saponification value		
Iodine value (Hanus) <u>a/</u>	188 - 197	
Unsaponifiable Matter	38 - 41	0.70
Blue value (behenic acid)		

tryptamide content)

0.035 - 0.040

As regards the Refractive Index, the Committee agreed that it should be measured at 40°C using the D-ray of sodium light. It was noted that the figure of 0.35 for Unsaponifiable matter might need to be looked at again when the results of the Study on Unsaponifiable Matter were available.

#### Expeller Cocoa Butter and Refined Cocoa Butter

24. The Committee agreed to delete the square brackets regarding the figures for Melting behaviour and Iodine value. It also decided to change the maximum values for Free fatty acids, which are still in square brackets, into 1.75% m/m. The Committee considered that there was no need for provisions for Blue value and Extinction value in the case of the Refined Cocoa Butter and decided to delete references to those values.
25. The delegation of Brazil suggested the following values for expeller cocoa butter:

Saponification value: 188-195  
Clear melting point: 31-33°

#### CONTAMINANTS

26. The delegation of the Netherlands said that recent analyses showed that the figures for lead were too low and proposed a maximum level of 1.0 mg/kg. However, the Committee decided to leave the figures unchanged in the Standard.

#### PESTICIDE RESIDUES

27. The Swiss delegation called attention to the need to ask the Codex Committee on Pesticide Residues to consider residues in cocoa products and chocolate, and in particular in cocoa butter. It might be that residues of chlorinated pesticides (DDT, Lindane) would be too high in comparison, e.g. of residues in milk products. The delegation of Italy mentioned that levels of pesticides were found in shells and in nibs in similar proportions. The Committee noted that in the report of its Sixth Session (paragraph 21, ALINORM 69/10) request had already been sent to the Codex Committee on Pesticide Residues on the same point. The Committee also noted that the OICC had already made, in 1967, a synopsis of figures of residues in cocoa products and chocolate. The delegation of France mentioned results regularly published in their country by the Institut Francais du Café et du Cacao. The United Kingdom delegation informed the Committee that the results of studies on the finished

a/ N.B. The figures in the Standard are for Iodine value (wijs)

cocoa and chocolate products on sale in the United Kingdom did not suggest that there was cause for concern. The Committee agreed to bring its previous request to the attention of the Codex Committee on Pesticide Residues again and to renew the request for consideration to be given to the problem.

#### Proposed Draft Standard for Cocoa Powder (Cocoa) and Sweetened Cocoa Powder (Sweetened Cocoa) (ex-Standard for finished Cocoa Products) (Appendix IV)

28. The Committee had before it the government comments on the Standard which appeared at Appendix IV of ALINORM 71/10. The title of the Standard was

edited so as to include the names of the products covered by its provisions and now reads: "Proposed draft Standard for cocoa powder (cocoa) and sweetened cocoa powder (sweetened cocoa)"<sup>11</sup>.

29. A scope section was included provisionally and it was noted that it might need to be reviewed in the light of the decision to elaborate provisions for cocoa powder mixtures. The provisional Scope section is "This Standard applies to cocoa powder (cocoa) and sweetened cocoa powder (sweetened cocoa) as defined when intended for direct consumption." The Committee noted that the Standard was not at present intended to cover other cocoa products, in particular instantised versions of cocoa or sweetened cocoa or drinking chocolate which consisted principally of cocoa and sugar with additional ingredients; the Scope Section might need to refer explicitly to these exclusions.
30. The Committee agreed to a proposal by the delegation of Finland to refer specifically to fructose in the permitted sugars.

#### ADDITIVES

31. The Committee agreed to make the appropriate changes to the Standard in accordance with the decisions taken on the Standard for cocoa (cacao) beans, cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines). It was also made clear that maximum limits for alkalizing agents and neutralizing agents were not intended to apply to the total product but to the fat-free cocoa fraction and to the cocoa fraction respectively.

#### CONTAMINANTS

32. The figure for copper was reduced to 50 mg/kg to correspond to that already agreed for cocoa press cake and it was made clear that all the figures related to the cocoa fraction of the product.

#### HYGIENE

33. This section was edited in accordance with the endorsement by the Codex Committee on Food Hygiene.

#### LABELLING

34. The Committee noted that section 6.2 "List of ingredients" did not accurately reflect the decision recorded in paragraph 38 of the Report of its Eighth Session, that the products covered by the Standard should have a full declaration of ingredients. Some delegations suggested that a full declaration would not be necessary so long as it was made clear to the consumer when sugars other than sucrose were added in significant amounts, e.g. more than 5%. It was pointed out that although the term "sweetened" was used in English speaking countries the corresponding term in French (sucré) and German (gezückert) was the equivalent of "sugared" and that the consumer expected to get sucrose in such products. It was therefore suggested that any declaration of sugars other than sucrose should be made prominently but that it would be misleading in that case if the other sugars were present in amounts of less than 5%.
35. After a full discussion the Committee, despite the reservations recorded in paragraph 60, decided to reaffirm its decision to require a full declaration of ingredients in descending order of proportion and to require an additional declaration in close proximity to the name of the product of sugars other than sucrose when present in quantities of at least 5% of the finished product.

36. It was also noted that the reference in Section 6 to the use of the term "chocolate" was intended to apply only to the sweetened products.

Cocoa Powder for Industrial Purpose and Cocoa Powder Mixture

37. The Committee had before it document CX/CPC 71/5 which had been prepared by the delegation of the Netherlands and contained proposals to insert "Cocoa Powder for Industrial Purpose" and "Cocoa Powder Mixture" into the draft standard. It was pointed out that in some countries there was a wide range of products of varying compositions which were known as "Instant Cocoa" or "Drinking Chocolate". Several delegations inquired as to whether these products were intended for sale from vending machines as well as directly to the consumer. Other delegations were concerned as regards the rather low figures that had been proposed for the actual cocoa content. The delegations of France and Switzerland said that the name 'Cocoa powder mixtures' would be unsatisfactory. The delegation of the Netherlands explained that the products proposed were intended both for direct consumption and for vending machines purposes and that as regards vending machines the intention was to describe the composition of the products which were going into the machine and not for those which emerged. The proposal was intended to cover the wide range of instantised products which were based on cocoa and sugar but included additional ingredients necessary for such products.
38. The Committee agreed that governments should be asked to comment on the Netherlands proposals (which appears as an Annex to Appendix IV), bearing in mind the scope and provisions of the existing standard, and that in the light of these comments the Netherlands would prepare a revised paper for the next session of the Committee.

Proposed Draft Standard for Chocolate (Appendix V)

39. The Committee had before it the proposed draft standard for Chocolate (Appendix V to ALINORM 71/10) and the Government comments as contained in CX/CPC 71/4 and its addenda. The Committee considered the Standard, paragraph by paragraph and made a number of amendments. The revised version of the Standard appears as Appendix V.

SCOPE

40. It was agreed that a scope section should be included in due course but that its provisions would need to take account of decisions to be taken on composite and flavoured chocolates.

DESCRIPTIONS

41. The descriptions were edited so as to include references to compositional provisions and optional ingredients. The descriptions of chocolate, sweet or plain chocolate and unsweetened chocolate were separated. Fructose was added to the list of permitted sugars. The delegation of Austria made a statement on the standard in which it emphasized its objection to any further lowering of the cocoa fraction in the figures for chocolates.

Chocolate, Unsweetened chocolate and Couverture chocolate

42. The delegation of the U.S.A. said that, in its view, the figure of 2.5% m/m fat-free cocoa solids for couverture chocolate was too low. The delegation of Italy, with support from other delegations, suggested that the figures for couverture

chocolate should be separated from the figures for chocolate and that the minimum cocoa butter content of a couverture chocolate should be 31%. The Committee decided to leave the provisions unchanged and emphasized that the figures in the compositional section must be read in conjunction with the descriptions which, in the case of a couverture, required the product to be "suitable for covering purposes". The Committee agreed to consider an additional labelling provision for couverture chocolate (see paragraph 57 below)•

#### Sweet or Plain Chocolate

43. The Committee agreed to correct the provisions by the inclusion of the requirement for 6% fat-free cocoa solids which had been omitted from the text as circulated. The Committee also agreed, after further discussion, to insert a minimum of 30% m/m total cocoa solids in order to separate sweet or plain chocolate from chocolate (35% total cocoa solids). The delegations of Ghana and Brazil expressed their reservations about the decision to lower the minimum cocoa solids content. Several delegations pointed out that the terms sweet or plain chocolate were being used in a number of countries to describe products which complied with the proposed provisions. Other delegations drew attention to the difficulties of finding a suitable description for a new product so as to avoid confusion with similar descriptions already in use for chocolate; for example, the term sweet chocolate would not be suitable in the French, German or Nordic languages.

#### Milk chocolate and Milk Couverture chocolate

44. It was decided to raise the minimum amount of milk fat to 3.65% m/m to correspond with the 10.5% m/m of fat-free milk solids; the minimum requirements would then allow for the addition of whole milk powder.
45. The Committee considered the minimum figures of 25% total cocoa solids which had been supported for many years by a majority of the Committee which considered that a figure of 25% was essential for a product described as milk chocolate. The Government comments from these countries still maintained this position.
46. The delegation of the United Kingdom, with support from other delegations, referred to several written comments and asked for a reduction in the minimum of 25% total cocoa solids to 20% or, alternatively, for a provision to the effect that the total cocoa solids should be 25% with a provision that the figure could be reduced to 20% if the minimum total milk and cocoa solids was 40%. It was pointed out that the present provision required at least 14% milk solids and 25% cocoa solids, a total of 39% solids and that consumer tastes in some countries could not be satisfied by varying the mixture between those limits whereas an additional variable of 5 or 6% would enable these tastes to be met in all countries.
47. The delegations of the Federal Republic of Germany, France, Italy, Switzerland, Austria, Ghana, Brazil and Nigeria said that, in their view, the cocoa content of milk chocolate should not be reduced. The delegation of the U.S.A. suggested that if the characterizing flavour of chocolate was considered to be the important factor in a milk chocolate it would be more appropriate to increase the fat-free cocoa solids from 2.5% to 5%. The delegation of Finland reminded the

Committee of its proposal made at an earlier session that the figures should be 5% and 20% respectively.

48. It was suggested that a milk chocolate could be produced based on the new provisions for sweet or plain chocolate and that it might be called sweet milk chocolate. Delegates familiar with the product said, however, that the characteristic of milk chocolate with less than 25% cocoa solids was its milkiness and not its sweetness and that the consumer needed to know that it contained extra milk. The delegation of the United Kingdom also drew attention to its written comments in which it was suggested that a product complying with the minimum provisions for milk chocolate would look and taste differently from those with higher provisions and that the consumer could be confused by one description "milk chocolate" for a wide range of compositions.
49. The Committee finally decided to maintain the figure for minimum total cocoa solids unchanged at 25%. Governments who were in favour of a reduction to 20% minimum total cocoa solids would need to consider the matter further, taking into account the Codex acceptance procedure and the possible inclusion of a provision which would allow the continued use in their countries of the description milk chocolate for their products so long as they complied with national legislation.

#### Milk Chocolate Vermicelli and Milk Chocolate Flakes

50. The Committee agreed to increase the minimum figure of 3.5% milk fat to 3.65% as had been done for Milk Chocolate.

#### Optional Ingredients in Chocolate other than Milk Chocolate.

51. The delegation of the U.S.A. proposed that a provision for a maximum of 5% m/m of milk solids (butter fat, non fat solids) in their natural proportions or otherwise be allowed as optional ingredients in chocolate. The delegations of Ireland and the United Kingdom informed the Committee that a number of products were on sale in their countries which would be prevented by the restriction to 5% as they had a milk solids content between 5% and 14%. These delegations therefore objected to the decision.
52. The delegation of Nigeria stated that they could only agree to the inclusion of a maximum of 5% m/m milk solids as optional ingredients on the understanding that it would not affect in any respect the provisions for the minimum cocoa solids content. The observer from COPAL and the delegation of Austria endorsed this statement. The delegation of Brazil reserved its position as regards the inclusion of milk solids and re-affirmed its position against edible fats other than cocoa butter as optional ingredients in chocolates.
53. The Committee agreed to amend the Standard accordingly noting that any addition would be declared in the list of ingredients but that no other mention in relation to the addition of milk solids would be allowed on the label.

#### FOOD ADDITIVES

54. The Committee made similar editing changes for flavours as in the other Standards. The Committee agreed to the inclusion of four additional emulsifiers for which the United Kingdom had submitted a detailed technological case which had been supported by other delegations. In reaching its decision the Committee

took into account the Government comments which had been sent in following the reference in paragraphs 48-49 of the Report of its Eighth Session. Maximum limits were laid down for each of the additional emulsifiers and it was noted that the overall limit of 1.5% m/m for all emulsifiers would remain unchanged. The delegations of France, the Federal Republic of Germany and Italy stated that they were not in favour of additional emulsifiers and the delegation of Switzerland said that in its view only one (polyglycerol poly-ricinoleate) was necessary. The Committee noted that the additional emul-sifiers would have to be endorsed by the Codex Committee on Food Additives.

#### CONTAMINANTS

55. The Committee examined the figures for the maximum levels of copper, arsenic and lead which were in square brackets in the Standard. The delegations of France and the Federal Republic of Germany proposed to reduce the figure for lead to 1 mg/kg. The delegate of the Netherlands mentioned that a study was being carried out in their country on the actual level of contaminants in chocolate. The Committee decided to leave the figures in square brackets pending further comments to be made by governments.

#### HYGIENE

56. Section 5.3 was amended as in the other Standards.

#### LABELLING

##### Declaration on Couvertures

57. On the proposal of the French delegation, the Committee agreed to insert a mandatory provision for the declaration of the cocoa butter content in couverture chocolates.

##### Net Contents

58. The Committee agreed that a declaration of net weight should not be required in respect of products weighing less than a minimum quantity, provisionally fixed at 50 g. The Committee asked governments for further comments and meanwhile placed the figures in square brackets.

##### List of Ingredients - Exemption of very small Units

59. The question was raised whether or not very small units should be exempted from a complete declaration of ingredients on the label. The Committee considered that this was a general problem covering many commodities and requested the Codex Committee on Food Labelling to examine this question.
60. The delegations of Austria, Belgium, the Federal Republic of Germany and the Netherlands reaffirmed their general objection to a complete declaration of ingredients. The delegations of Austria and the Federal Republic of Germany stated that, in their view, alkalizing and neutralizing agents should not have to be declared.

##### Proposed Draft Standard for Composite and Flavoured Chocolate (Appendix VI)

61. The Committee considered the proposed draft Standard for composite and flavoured chocolates (Appendix VI, ALINORM 71/10) in the light of government comments and a definition for composite chocolate proposed by the Chairman.

The Committee elaborated the following proposal as a tentative basis for control of composite and flavoured chocolates:

"Composite chocolate is one of the chocolates defined under 2.1.1 - 2.1.7 of the Standard for Chocolate to which may have been added edible substances with the exception of flour, starch and fats not derived from permitted ingredients. If the total of these added substances is lower than 5% m/m of the final product, the designation of the chocolate may not be accompanied by a reference to the added substances.

If the amount of one or more of these added substances is equal to or higher than 5% m/m of the final product, a reference to the substance or substances shall be included in the designation of the chocolate.

If substances are added both in the form of visible and separable pieces and in a form which is, in practice, indiscernible, their total amount is subject to a maximum of 40% m/m of the product; if they are added in a form so as to be, in practice, indiscernible, the total amount of these added substances shall not exceed 30% m/m of the product.

Additions of coffee will be subject to a minimum of 1% for declaration purposes. Additions of milk solids other than those allowed in the chocolate fraction as defined in 2.1.1 - 2.1.7 of the Standard for Chocolate are not permitted under this provision. Products will not be described as "composite chocolate" but will be labelled in accordance with the provisions of the labelling section of the Standard for Chocolate and in accordance with this proposal.

[Flavoured chocolate - to be developed]"

62. The Committee asked the Secretariat to include the above proposal in a revised version of this Standard which would be sent out for a further round of government comments. The Committee noted that **examples** of added substances would be honey, almonds, walnuts, hazelnuts, dried fruits, candied fruits or other fruit products, cream a/, butter a/, eggs, malt extract or other malted cereal grains. It was also noted that other substances would be added but that it would be impracticable to list them all in the Standard. Some substances, e.g. coffee, would require a different minimum percentage for declaration purposes because of their strong flavour.

a/ The Committee noted the conflict with the provision in paragraph 61 restricting the addition of milk solids.

63. The delegation of France drew attention to the effect of the provision in cases where there were two or more substances which each amounted to less than 5% while the total exceeded 5%. The provision, as drafted, would require a mention of each substance even though it was present in less than 5% and would not have been allowed to be mentioned if added on its own. A product might also contain substances up to the maxima of 30% and 40% without any one exceeding 5% and the use of indistinguishable pieces subject to a maximum of 30% might in practice be extended by the inclusion of (say) 1% of visible pieces which would then allow a further 9% in distinguishable pieces.
64. The delegation of the U.S.A. said that it was not in favour of control based on a percentage figure because such control was necessarily an arbitrary one. The aim should be to require the consumer to be informed in the name of the product when the taste characteristics of the product had been changed substantially.

Control should therefore be based on the effect of the addition and not on the amount added. The delegation of the United Kingdom agreed, in principle, with the U.S.A. delegation and added that, in their view, any edible substance should be allowed as an added substance and that the provisions controlling them should be included in the Standard for chocolate and not in a separate Standard.

65. The Committee invited Governments to comment on the above proposal and in particular to consider the maximum levels (5% or 1%) at which added substances should be controlled. Governments should also consider how provisions for flavoured chocolates should be elaborated and whether such provisions, together with those dealing with composite chocolates, should be included in the Standard for chocolate or dealt with separately.

#### Status of the Standards

66. The Committee agreed to submit to the Commission at Step 5 of the Procedure the proposed draft Standards for: (a) Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines) for use in the manufacture of Cocoa and Chocolate Products; (b) Cocoa Butters; (c) Cocoa Powder (Cocoa) and Sweetened Cocoa Powder (Sweetened Cocoa); and (d) Chocolate. The Committee also agreed to maintain the Proposed Draft Standard for Composite and Flavoured Chocolates at Step 4 and to ask governments to comment as in paragraph 65.

#### Methods of Analysis and Sampling for Cocoa Products and Chocolate

67. The Committee set up a small ad hoc working party under the chairmanship of Mr. Schubiger (Switzerland) to examine the status of the methods of analysis for cocoa products and chocolate. The report of the working party was adopted by the Committee and is attached as Appendix VIII to this Report. Those methods of analysis which are required to be endorsed by the Codex Committee on Methods of Analysis and Sampling are clearly specified in the Appendix.

#### Hygiene

68. The Committee was informed that the paper on hygiene requirements which was being prepared by the delegations of the U.S.A. and the Netherlands in collaboration with the OICC, was not yet ready and that much study still remained to be done. The Committee expressed its interest in this paper and requested the authors to continue their work in order that it may be considered at a future session. It was agreed that the Codex Committee on Food Hygiene would be informed of the results of this work when available.

#### White Chocolate

69. The Committee agreed that the Swiss proposal for White Chocolate (CX/CPC 70/5, plus LIM 7, June 1970) should be attached to the report, with a request to Governments for comments. This proposal appears as Appendix IX to the Report.

#### Date of the next Session

70. The Committee noted that in the calendar for the biennium 1972-73, adopted by the Commission at its Eighth Session, the next meeting of the Committee was scheduled for the Spring of 1973. It was pointed out that as the Commission would not consider the Step 5 Standards before November 1972, there was a risk that the Standards might not be ready for consideration at Step 7 by the

Committee. In view of the rather long time lag before the Standards would be considered at Step 5, it was suggested that the Executive Committee be asked if it could agree, in its capacity as the executive organ of the Commission between sessions of the Commission, to consider the possibility of sending out the standards for government comments at Step 6 of the Procedure without prejudice to the decisions of the Commission.

ALINORM 72/10  
Appendix I

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Appendix I

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PROPOSED DRAFT STANDARD FOR COCOA (CACAO) BEANS, COCOA (CACAO) NIB, COCOA (CACAO) MASS, COCOA PRESS CAKE AND COCOA DUST (.COCOA FINES), FOR USE IN THE MANUFACTURE OF COCOA AND CHOCOLATE PRODUCTS

(At Step 5 of the Procedure for the Elaboration of World-wide Standards)

1. SCOPE

This standard shall apply to Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines), as defined, for use in the manufacture of cocoa and chocolate products and intended for human consumption. It does not apply to these products when intended for other uses.

2. DESCRIPTIONS

2.1 Cocoa (Cacao) Beans are the seeds of the Cocoa tree (Theobroma Cacao L.) which may or may not have been fermented and are dry as defined in Section 2.1.8. They shall be practically free from:

- smoky beans;
- abnormal or foreign odours;
- insect-damaged beans;
- germinated beans;
- flat beans;
- broken beans;
- fragments;
- pieces of shell;
- slaty beans;
- mouldy beans;

and practically free from foreign matter and living insects.

2.1.1 Broken bean: A cocoa bean of which a fragment is missing, the missing part being equivalent to less than half the bean.

2.1.2 Fragment: A piece of cocoa bean equal to or less than half the original bean.

2.1.3 Insect-damaged Bean: A cocoa bean, the internal parts of which are found to contain insects at any stage of development, or to show signs of damage caused thereby, which are visible to the naked eye.

2.1.4 Mouldy Bean: A cocoa bean on the internal parts of which mould is visible to the naked eye.

2.1.5 Flat Bean: A cocoa bean of which the cotyledons are too thin to be cut to give a surface of cotyledon.

2.1.6 Germinated Bean: A cocoa bean the shell of which has been pierced, slit or broken by the growth of the seed germ.

- 2.1.7 Slaty Bean: A cocoa bean which shows a slaty colour on half or more of the surface exposed by a cut made lengthwise through the centre.
- 2.1.8 Dry Cocoa: Cocoa which has been evenly dried and the moisture content of which corresponds to the requirements included in sub-section 3.1.1.
- 2.2 Cocoa (Cacao) Nib is the product obtained from beans which have been cleaned and freed from shells as thoroughly as it is technically possible.
- 2.3 Cocoa (Cacao) Mass is the product obtained by the mechanical disintegration of cocoa nib without abstraction or addition of any of its constituents.
- 2.4 Cocoa Press Cake is the product obtained by partial removal of fat from cocoa nib or cocoa mass by mechanical means.
- 2.5 Expeller Press Cake is press cake prepared by the expeller process from cocoa beans with or without the addition of cocoa nib, cocoa press cake and cocoa dust (cocoa fines).
- 2.6 Cocoa Dust or Cocoa Fines is a fraction of the cocoa bean which is produced as a by-product during winnowing and degerming. It consists of a mixture of finely divided nib, shell and germ.

## Appendix II

### 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.1 Cocoa Beans

- 3.1.1 Minimum quality of cocoa beans for the manufacture of semi-processed and finished cocoa products, press cocoa butter and expeller cocoa butter, and chocolate: not more than the following limits of defective beans:

a)	mouldy beans	4% by count
b)	slaty beans	8% by count
c)	insect damaged beans, germinated beans or flat beans	6% by total count

- 3.1.2 The moisture content of cocoa shall not exceed 7-5%. This maximum moisture content is applied to cocoa in trade outside the producing country, as determined at first port of destination or subsequent points of delivery.

#### 3.2 Cocoa Nib, Cocoa Mass, Cocoa Press Cake

Cocoa shell:	not more than 4% m/m calculated on the fat-free dry matter
Total ash:	not more than 10% m/m calculated on the fat-free dry matter or 14% m/m when treated with permitted alkalizing agents
Ash insoluble in hydrochloric acid:	not more than 0.3% m/m calculated on the fat-free dry matter

### 4. FOOD ADDITIVES

[The following provisions in respect of food additives and their specifications as contained in Section of the Codex Alimentarius have been endorsed by the Codex Committee on Food Additives, except otherwise indicated]:

<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
<u>Alkalizing Agents</u>		
Ammonium carbonate		
Ammonium hydroxide		
Ammonium hydrogen carbonate		
Calcium carbonate	5% m/m singly or in combination, expressed as anhydrous K <sub>2</sub> CO <sub>3</sub> on a fat-free basis	all products described under Section 2
Magnesium carbonate		
Magnesium hydroxide		
Potassium carbonate		
Potassium hydroxide		
Potassium hydrogen carbonate		
Sodium carbonate		
Sodium hydroxide		
Sodium hydrogen carbonate		
<u>Neutralizing Agents</u>		
Phosphoric acid (a) (expressed as P <sub>2</sub> O <sub>5</sub> )	0.25% m/m	all products described under Section 2
OR		
Citric acid, L-tartaric acid	0.5% m/m, singly or in combination	
<u>Emulsifiers</u>		
All emulsifiers listed below:	1.5% m/m singly	Cocoa Mass,
Mono- and di-glycerides of edible fatty acids	or in combination, except as provided below:	Cocoa Press Cake
Lecithin	1% m/m of the acetone insoluble component of lecithin	
Ammonium salts of phosphatidic acids	0.7% m/m	

a) to be endorsed

Appendix II

<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
<u>Flavouring Agents</u>		
Natural flavours, as defined in the Codex Alimentarius and their		

synthetic equivalents, other than those which would imitate natural chocolate or milk flavours a)	limited by good manufacturing practice in small amounts for flavour adjustments	Cocoa Mass,  Cocoa Press Cake
Vanillin Ethyl vanillin		

5. CONTAMINANTS

The following provisions in respect of contaminants are subject to endorsement by the Codex Committee on Food Additives:

<u>Contaminant</u>	<u>Maximum level</u>	<u>Food</u>
Copper	20 mg/kg 50 mg/kg	Cocoa beans, nib and mass Press cake
Arsenic	1 mg/kg	All products described
Lead	2 mg/kg	under Section 2

6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the appropriate sections of the Recommended International Code of Hygienic Practice entitled "General Principles of Food Hygiene" as approved by the Codex Alimentarius Commission (Ref. No. CAC/RCP 1-1969).

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

6.3 When tested by appropriate methods of sampling and examination, the products shall not contain any substances originating from microorganisms in amounts which may be toxic.

7. LABELLING

[Subject to endorsement by the Codex Committee on Food Labelling]. The following declarations shall be made either on the container or in the accompanying documents:

7.1 Designation of the Product

Only products conforming with the appropriate description in Section 2 of this Standard and the essential composition and quality factors in Section 3 may be designated cocoa nib, cocoa mass and cocoa press cake, respectively.

7.2 List of Ingredients

Ingredients such as alkalizing and neutralizing agents, emulsifiers and flavouring agents shall be declared under generic or specific names.

7.3 Net Contents

The net contents shall be declared by weight in either the metric system ("Système International" units) or avoirdupois or both systems of measurement as required by the country in which the food is sold.

#### 7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

#### 7.5 Country of Origin

- a) Temporarily endorsed in 1969 (Appendix VII, ALINORM 70/12 and Appendix II, ALINORM 71/12) See paragraph 16 of the present Report.

#### Appendix II

7.5.1 The country of origin of the products covered by the Standard shall be declared, unless they are sold within the country of origin, in which case the country of origin need not be declared.

7.5.2 When a food undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

### 8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods [which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling]:

8.1	<u>Analysis Criterion</u>	<u>Method</u>	<u>Food</u>
8.1.1	Cut test	ISO R 114 (to be endorsed)	
8.1.2	Moisture content (loss on drying)	ISO R 2291 <u>1/</u>	Cocoa beans
8.1.3	Cocoa shell	AOAC-OICC study under way based on the stone cell count AOAC (1970) 13.023-13.027 and Van Brederode - Reeskamp. Method not yet proposed.	Cocoa nib, mass, press cake
8.1.4	Total ash	AOAC-OICC study well advanced. Methods not yet proposed.	
8.1.5	Ash insoluble in hydrochloric acid	AOAC-OICC method (AOAC (1970) 13.008) to be endorsed.	Cocoa nib, mass, press cake
8.1.6	pH <u>2/</u>	AOAC (1970) 13.008) to be endorsed.	
8.1.7	Copper	AOAC 11965) 24.023-24.028 <u>1/3/</u> AOAC (1965) 24.011-	All products
8.1.8	Arsenic		described under

8.1.9	Lead	24.014 <u>1/</u>	Section 2
8.2	<u>Sampling</u>	AOAC (1965) 24.053 <u>1/3/</u>	
8.2.1	Cocoa beans	ISO R 2292. <u>To be</u> endorsed	

1/ Already endorsed. To be reconsidered at the 7th Session of the Codex Committee on Methods of Analysis and Sampling.

2/ For checking the alkali treatment.

3/ Might be replaced by Atomic Absorption Spectrophotometry in the future.

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Appendix III

### PROPOSED DRAFT STANDARD FOR COCOA BUTTERS

(At Step 5 of the Procedure for the Elaboration of World-Wide Standards)

#### 1. SCOPE

This standard applies exclusively to cocoa butter used as ingredient in the manufacture of chocolate and chocolate products.

#### 2. DESCRIPTIONS

##### 2.1 Cocoa Butter is the fat produced from one or more of the following:

Cocoa beans (as defined in Section 2.1 and 3.1 of Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines)), cocoa nib, cocoa mass, cocoa press cake, expeller press cake or cocoa dust (cocoa fines), by a mechanical process and/or with the aid of permissible Solvents. Cocoa butter shall not contain shell fat or germ fat in excess of the proportion in which they occur in the whole bean.

Cocoa butter may be treated as follows:

- (a) filtered, centrifuged;
- (b) degummed, deodorized by steam under vacuum and all other normal methods of deodorization;
- (c) treated with lye or a similar substance normally used for neutralizing;
- (d) treated with bentonite, active carbon and other compounds normally used for bleaching.

##### 2.2 Press Cocoa Butter a/ is the fat which is obtained by pressure from cocoa nib or cocoa mass (cocoa liquor) obtained from cocoa beans as described in Sections 2.1 and complying with the Minimum Quality laid down in Section 3.1 of Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines). It may only be treated as stated under (a) and (b) of Section 2.1 of the general definition of cocoa butter.

##### 2.3 Expeller Cocoa Butter a/

"Expeller Cocoa Butter" is the fat prepared by the expeller process from cocoa beans and/or cocoa nib as defined in Sections 2.1 and 2.2 of the Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines) and complying with the Minimum Quality laid down in Section 3.1. It may only be treated as stated under (a) and (b) of Section 2.1 of the general definition of cocoa butter. Cocoa Butter prepared by

the Expeller process from other raw materials is not included in the present description.

## 2.4 Refined Cocoa Butter a/

"Refined Cocoa Butter" is the refined fat obtained from cocoa beans or from other raw materials as defined in Section 2 of Standard for Cocoa (Cacao) Beans. Cocoa (Cacao) Nib. Cocoa (Cacao) Mass. Cocoa Press Cake and Cocoa Dust (Cocoa Fines), which, in addition to having been treated as indicated under (a) and (b) of Section 2.1. has also been treated as indicated under (c) and/or (d) of Section 2.1 of the general definition of cocoa butter and

a/ "Footnote to the Definitions of Cocoa Butter for Use in Chocolate"- Fat which has been prepared from the raw materials permitted for the manufacture of cocoa butter and by one of the methods of preparation authorized for cocoa butter and with or without one of the treatments authorized for cocoa butter, but which does not comply with all the analytical values laid down for cocoa butter, may only be added to cocoa butter and only in such an amount that the resulting mixture is in compliance with the analytical values for refined cocoa butter.

## Appendix III

which may have been obtained with the aid of permissible solvents. The fat obtained by the Expeller process, from raw materials other than those allowed in Section 2.3 above, shall be refined.

## 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Identification and quality values

-	3.1 .1	3.1 .2	3.1 .3
	<u>Press Cocoa Butter</u>	<u>Expeller Co-coa Butter</u>	Refined Co-coa Butter
<u>Characteristic</u>	<u>Values</u>	<u>Values</u>	<u>Values</u>
Organoleptic characteristics:			
Colour	Characteristic of the designated product	Characteristic of the designated product	Characteristic of the designated product
Odour and taste	Characteristic of the designated product and free from foreign odour and foreign taste	Characteristic of the designated product and free from foreign odour and foreign taste	Characteristic of the designated product and free from foreign odour and foreign taste
40°C			
Refractice Index nD	1.456-1.458	[T.453-1.459]	[1.453-1 .459]
Melting behaviour (Fincke)			
(slip point	32 - 33,5°C	32 - 33.5°C	32 - 33.5°C
(clear melting point	33 - 35 C	33 - 35°C	33 - 35°C
Free fatty acids (expressed as % m/m oleic acid)	0.5-1.75%m/m	[0.5-1.7 5]%m/m	[0 - 1.7 5]%m/m
Saponification value (expressed as mg KOH/g fat)	192 - 197	[188 - 198]	[188 - 198]
Iodine value (wijs)	33 - 42	32 - 43	32 - 43
Unsaponifiable matter (petroleum ether)	not more than 0.35% m/m	not more than [x]% m/m	not more than [X]% m/m
[Blue value (behenic acid tryptamide content)]	[to be specified later]a/	[to be specified later]a/	not applicable

Extinction value at 270 nm (after rinsing with NaOH)	[see paragraphe 22 in the report]a/	[to be speci- fied later]a/	not appli- cable
[Fatty acid composition (by gas liquid chromatography)]	[to be speci- fied later]a/	[to be speci- fied later]a/	[to be spe- cified later]a/

a/ Note by the Secretariat: Governments are invited to propose appropriate values for consideration by the Committee.

### Appendix III

#### 4. FOOD ADDITIVES

None permitted.

#### 5. CONTAMINANTS

Contaminant	Maximum level
Copper	0.4 mg/kg
Arsenic	0.5 mg/kg
Lead	0.5 mg/kg
Iron	2.0 mg/kg

#### 6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the appropriate sections of the Recommended International Code of Hygienic Practice entitled "General Principles of Food Hygiene" as approved by the Codex Alimentarius Commission (Ref. No. CAC/RCP 1-1969).

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

6.3 When tested by appropriate methods of sampling and examination, the product shall not contain any substances originating from micro-organisms in amounts which may be toxic.

#### 7. LABELLING [Subject to endorsement by the Codex Committee on Food Labelling]

In addition to sections 1,2,4 and 6 of the General Standard for the Labelling of Prepackaged Foods (Ref. No. CAC/RS 1-1969) the following specific declarations shall be made either on the container or on the accompanying documents:

##### 7.1 Designation of the Product

7.1.1 Press Cocoa Butter: Only products described under Section 2.2 and complying with the requirements of Section 3.1.1 of the standard may be designated "cocoa butter" or "press cocoa butter". If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as mentioned in 2.1(b)), the designation may include the term "deodorized".

7.1.2 Expeller Cocoa Butter: Products described under Section 2.3 and complying with the requirements of Section 3.1.2 of the standard shall be designated "expeller cocoa butter". If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as mentioned in 2.1 (b)), the designation may include the term "deodorized".

7.1.3 Refined Cocoa Butter: Products described under Section 2.4 and complying with the requirements of Section 3.1.3 of the standard shall be designated "refined cocoa butter"

## 7.2 Net Contents

The net contents shall be declared by weight in either the metric system ("Système International" units) or avoirdupois or both systems of measurement as required by the country in which the food is sold.

## 7.3 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

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### 7.4 Country of Origin

7.4.1 The country of origin of the products covered by the standard shall be declared, unless they are sold within the country of origin, in which case the country of origin need not be declared.

7.4.2 When a food undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

## 8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods [which are to be endorsed (unless otherwise indicated) by the Codex Committee on Methods of Analysis and Sampling].

### 8.1 Analysis

<u>Criterion</u>	<u>Method</u>
8.1 .1 Refractive index (40°C nD)	IUPAC II.B.2 <u>2/</u>
8.1 .2 Melting behaviour (Fincke) (1) slip point  (ii) clear melting point	AOAC/OICC study under way, specially concerning the preparation of the sample. A proposal will be submitted later
8.1 .3 Free fatty acids (expressed as % oleic acid)	IUPAC II.D.1 <u>2/</u>
8.1 .4 Saponification value	IUPAC II.D.2 <u>2/</u>
8.1 .5 Iodine value (wijs)	IUPAC II.D.7.3 <u>2/</u>
8.1 .6 Unsaponifiable matter (petroleum ether)	IUPAC II.D.5.2 <u>2/</u>
[8.1.7 Blue value (behenic acid tryptamide content)	Method to be kept in square brackets, waiting for a further appraisal of its usefulness]
8.1 .8 Extinction value at 270 nm (after rinsing with NaOH)	Provisional OICC method has been issued, approval by AOAC pending. Method not yet proposed
[8.1.9 Fatty acid composition (by gas liquid chromatography]	Provisional OICC method has been issued, approval by AOAC pending. Method not yet proposed]

- 8.1.10 Copper AOAC (1965) 24.023-8 2/ 3/
- 8.1.11 Arsenic AOAC (1965) 24.011-4, 24.017) 2/
- 8.1.12 Lead AOAC (1965) 24.053 2/ 3/
- 8.1.13 Iron B.S. Method: CAC/RM 14-1969 2/ 3/

8.2 Sampling

- 8.2.1 Preparation of sample IUPAC II.A.1 1/ 2/

1/ Not applicable to melting behaviour.

2/ Already endorsed. To be reconsidered at the Seventh Session of the Codex Committee on Methods of Analysis and Sampling.

3/ Might be replaced by Atomic Absorption Spectrophotometry in the future.

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Appendix IV

PROPOSED DRAFT STANDARD FOR COCOA POWDER (COCOA) AND SWEETENED COCOA POWDER (SWEETENED COCOA) (at Step 5 of the Procedure for the Elaboration of World-Wide Standards)

1. SCOPE

This Standard applies to cocoa powder (cocoa) and sweetened cocoa powder (sweetened cocoa) as defined when intended for direct consumption.

2. DESCRIPTION

2.1 Cocoa Products

2.1.1 Cocoa Powder or Cocoa is the product obtained by mechanical transformation of cocoa press cake as defined in Standard for cocoa (cacao) beans' cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines), Section 2.4 , into powder.

2.1.2 Sweetened Cocoa Powder or Sweetened Cocoa is a mixture of cocoa powder and sugars only.

2.2 Sugars, for the purposes of this standard, include sucrose, dextrose (anhydrous and monohydrate), dried glucose syrup, lactose, fructose and any other suitable carbohydrate sweetener.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

3.1.1 Cocoa Powder or Cocoa

Cocoa Butter: not less than 20% m/m calculated on the dry matter

Moisture content: not more than 9% m/m

3.1.2 Fat-reduced Cocoa Powder or Fat-reduced Cocoa

Cocoa powder or cocoa containing less than 20% m/m but not less than 8% m/m of cocoa butter and with a moisture content of not more than 9% m/m.

3.1.3 Sweetened Cocoa Powder or Sweetened Cocoa

Cocoa Powder: not less than 32% m/m, calculated on the dry matter

### 3.1.4 Sweetened fat-reduced Cocoa Powder or Sweetened fat-reduced Cocoa

Fat-reduced cocoa powder: not less than 32% m/m calculated on the dry matter

### 3.2 Optional Ingredients

	<u>Maximum level</u>	<u>Food</u>
Spices ) Salt (sodium chloride))	limited by good manufacturing practices	Cocoa Powder or Cocoa, Sweetened Cocoa Powder or Sweetened Cocoa

### 4. FOOD ADDITIVES

[The following provisions in respect of food additives and their specifications as contained in Section ... of the Codex Alimentarius have been endorsed by the Codex Committee on Food Additives, except otherwise indicated]:

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<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
<u>Alkalizing Agents</u>		
Ammonium carbonate		
Ammonium hydroxide		
Ammonium hydrogen carbonate		
Calcium carbonate	5% m/m singly or in combination, expressed	Cocoa Powder or Cocoa, Sweetened Cocoa Powder
Magnesium carbonate		
Magnesium hydroxide	as anhydrous K <sub>2</sub> CO <sub>3</sub> , on	or Sweetened Cocoa
Potassium carbonate	a fat-free cocoa fraction	
Potassium hydroxide		
Potassium hydrogen carbonate		
Sodium carbonate		
Sodium hydroxide		
Sodium hydrogen carbonate		
<hr/>		
<u>Neutralizing Agents</u>		
Phosphoric acid (expressed as P <sub>2</sub> O <sub>5</sub> ) <u>a/</u>	0.25% m/m on the cocoa fraction	
OR		
Citric acid, L-tartaric acid	0.50% m/m singly or in combination on the cocoa fraction	ditto
<hr/>		
<u>Emulsifiers</u>		
All substances listed below:	1.5% m/m singly or in combination on the finished product <u>except</u> as provided below :	
Mono- and di-glycerides of edible fatty acids	1% m/m of the acetone	
Lecithin		

Ammonium salts of phosphatidic acids	insoluble component of lecithin 0.7% m/m	ditto
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Flavouring Agents

Natural flavours as defined in the Codex Alimentarius, and their synthetic equivalents, Other than those which Would imitate natural chocolate or milk flavours <u>b/</u>	limited by good manufacturing practice	ditto
Vanillin	in small amounts for	
Ethyl vanillin	flavour adjustment	

5. CONTAMINANTS

[The following provisions in respect of contaminants are subject to endorsement by the Codex Committee on Food Additives]:

a/ to be endorsed.

b/ Temporarily endorsed in 1969 (Appendix VII, ALINORM 70/12 and Appendix II, ALINORM 71/12). See paragraph 16 of the present Report.

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<u>Contaminant</u>	<u>Maximum level on the cocoa fraction</u>	<u>Food</u>
Copper	50 mg/kg	Cocoa Powder or Cocoa,
Arsenic	1 mg/kg	Sweetened Cocoa Powder
Lead	2 mg/kg	or Sweetened Cocoa

6. HYGIENE

It is recommended that the products covered by the provisions of this standard be prepared in accordance with the appropriate sections of the Recommended International Code of Hygienic Practice entitled "General Principles of Food Hygiene" as approved by the Codex Alimentarius Commission (ref. No. CAC/RCP 1-1969).

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

6.3 When tested by appropriate methods of sampling and examination, the products shall not contain any substances originating from micro-organisms in amounts which may be toxic.

7. LABELLING [Subject to endorsement by the Codex Committee on Food Labelling]

In addition to sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (ref. No. CAC/RS 1-1969) the following specific declarations shall be made.

## 7.1 Designation of the Product

- 7.1.1 Cocoa Powder or Cocoa: Only products described under Section 2.1.1 and complying with Section 3.1.1 of the Standard may be designated as "Cocoa powder" or "cocoa".
- 7.1.2 Fat-reduced Cocoa Powder or Fat-reduced Cocoa: Products not complying with Section 3.1.1 but complying with Section 3.1.2 of the Standard shall be designated "fat-reduced cocoa powder" or "fat-reduced cocoa".
- 7.1.3 Sweetened Cocoa Powder or Sweetened Cocoa: Only products described under Section 2.1.2 and complying with section 3.1.3 of the Standard may be designated "sweetened cocoa powder" or "sweetened cocoa".
- 7.1.4 Sweetened Fat-reduced Cocoa Powder or Sweetened Fat-reduced Cocoa: Products not complying with Section 3.1.3 but complying with Section 3.1.4 of the Standard shall be designated "sweetened fat-reduced cocoa powder" or "sweetened fatreduced cocoa".
- 7.1.5 Products labelled in accordance with 7.1.3 and 7.1.4 shall carry a special declaration if the amount of the sugars other than sucrose is more than 5% of the product. This declaration shall be made in close proximity to the designation and shall include the name of the sugar or sugars with or without a reference to sugar (sucrose).
- 7.1.6 The term "chocolate" shall not be used as part of the designation of products subject to 7.1.3 and 7.1.4 except in those countries where national legislation already permits such use.

## 7.2 List of Ingredients

A complete list of ingredients shall be given in descending order of proportion and alkalizing and neutralizing agents, emulsifiers and flavouring agents shall be declared under generic or specific names.

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## 7.3 Net Contents

The net contents shall be declared by weight in either the metric system ("Système International" units) or avoirdupois or both systems of measurement as required by the country in which the food is sold.

## 7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

## 7.5 Country of Origin

- 7.5.1 The country of origin of the products covered by the Standard shall be declared, unless they are sold within the country of origin, in which case the country of origin need not be declared.
- 7.5.2 when a food undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

## 8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods [which are to be endorsed (unless otherwise indicated) by the Codex Committee on Methods of Analysis and Sampling]:

8.1	<u>Analysis</u>	<u>Method</u>	<u>Food</u>
	<u>Criterion</u>		
8.1.1	Cocoa shell	AOAC-OICC study under way, based on the stone cell count AOAC(1970) 13.023-13.027 and  Van Brederode - Reeskamp.	All products described under Section 2.1
8.1.2	Total ash	Method not yet proposed.	All products described under Section 2.1
8.1.3	Ash insoluble in hydrochloric acid	AOAC-OICC study under way. Method not yet proposed.	
8.1.4	pH <u>1/</u>	AOAC-OICC method. AOAC (1970) 13.008. To be endorsed.	All products described under Section 2.1
8.1.5	Percentage of cocoa butter	(a) Total fat. OICC-AOAC method. AOAC(1970) 13.035 - 13.036 <u>2/</u> <u>AND</u> (b) Fatty acid composition determined by GLC. Provisional OICC method not yet approved by AOAC. Method not yet proposed.	All products described under Section 2.1
8.1.6	Moisture content (loss on drying)	AOAC(1965) 12.001 - 12.002 <u>2/</u>	All products described under Section 2.1

1/ For checking the alkali treatment.

2/ Already endorsed. To be reconsidered at the Seventh Session of the Codex Committee on Methods of Analysis and Sampling. (ALINORM 71/23, para. 62).

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	<u>Criterion</u>	<u>Method</u>	<u>Food</u>
8.1.7	Percentage of - Cocoa powder - Fat-reduced cocoa powder	Through: (a) Fat-free cocoa solids. OICC study under way. Method not yet proposed. (b) Calculation from actual fat-free cocoa solids. and cocoa butter contents. Method not yet proposed.	Products described under Sub-section 2.1.2
8.1.8	Identification of Sugars	Paper chromatography OICC 7a 1960, provisionally indicated. Method not yet proposed.	Products described under Sub-section 2.1.2

8.1.9	Copper	AOAC (1965) 24.023 - 24.028	<u>1/2/</u>	All products
8.1.10	Arsenic	AOAC (1965) 24.011 - 24.014	<u>1/</u>	described under
8.1.11	Lead	AOAC (1965) 24.053	<u>1/ 2/</u>	Section 2.1

1/ Already endorsed. To be reconsidered at the Seventh Session of the Codex Committee on Methods of Analysis and Sampling. (ALINORM 71/23, para. 62).

2/ Might be replaced by Atomic Absorption Spectrophotometry in the future.

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Annex

AMENDMENT PROPOSED BY THE NETHERLANDS TO THE PROPOSED DRAFT STANDARD FOR  
COCOA POWDER ( COCOA ) AND SWEETENED COCOA POWDER. (SWEETENED  
COCOA) (At Step 5)

2. DESCRIPTION

2.1 Cocoa Products

(to be amended as follows):

2.1.3 Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes is a mixture of cocoa powder and emulsifiers or stabilizers.

2.1.4 Cocoa Powder Mixture is a product made in powder, granular or agglomerated form consisting of cocoa powder and sugars that may also include other ingredients and is not defined as sweetened cocoa powder.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

(to be amended as follows):

3.1.5 Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes

Cocoa Powder: not less than 95% m/m, calculated on the dry matter

3.1.6 Fat-reduced Cocoa Powder for Industrial Purposes or Fat-reduced Cocoa for Industrial Purposes

Fat-reduced cocoa powder: not less than 95% m/m, calculated on the dry matter

3.1.7 Cocoa Powder Mixture

Cocoa Solids: not less than 20% m/m, calculated on the dry matter

3.1.8 Cocoa Powder Mixture with Milk Solids

Cocoa Solids: not less than 10% m/m, calculated on the dry matter

Milk Solids: not less than 20% m/m, calculated on the dry matter

4. FOOD ADDITIVES

(to be amended as follows):

<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
<u>Alkalizing Agents</u>		(to add): Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes - Cocoa Powder Mixture ditto
<u>Neutralizing Agents</u>		
<u>Emulsifiers:</u>		
<u>Lecithin</u>	5% m/m of the acetone insoluble component of lecithin	Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes
Mono- and diglycerides of edible fatty acids	5% m/m	ditto

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<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
Ammonium salts of phosphatidic acids	3.5% m/m	ditto
<u>Stabilizers</u>		
Carrageenans	3.5% m/m	ditto
Alginates	3.5% m/m	ditto
[Carboxymethyl-cellulose]	3.5% m/m	ditto
<u>Anti-caking Agents</u>		
Sodium silicoaluminate	1% m/m	Cocoa Powder Mixture
Colloid siliciumdioxide	1% m/m	ditto
Tricalciumphosphate	1% m/m	ditto
<u>Flavouring Agents</u>		(to add): Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes Cocoa Powder Mixture

7. LABELLING

7.1 Designation of the Product (to be amended as follows);

7.1.7 Cocoa Powder for Industrial Purposes or Cocoa for Industrial Purposes:

Products not complying with Section 3.1.1 but complying with Section 3.1.5 of the Standard shall be designated "cocoa powder for industrial purposes" or "cocoa for industrial purposes".

- 7.1.8 Fat-reduced Cocoa Powder for Industrial Purposes or fat-reduced Cocoa for Industrial Purposes: Products not complying with Section 3.1.2 but complying with Section 3.1.6 of the Standard shall be designated "fat-reduced cocoa powder for industrial purposes" or "fat-reduced cocoa for industrial purposes".
- 7.1.9 Cocoa Powder Mixture: Products not complying with Section 3.1.3 but complying with Section 3.1.7 of the Standard shall be designated "cocoa powder mixture".
- 7.1.10 Cocoa Powder Mixture with Milk Solids: Only products complying with Section 3.1.8 of the Standard shall be designated "cocoa powder mixture with milk solids".

7.2 List of Ingredients

(to be amended as follows):

••• and alkalizing and neutralizing agents, emulsifiers, stabilizers, anti-caking agents and flavouring agents shall be declared under generic or specific names.

PROPOSED DRAFT STANDARD FOR CHOCOLATE (at  
Step 5 of the Procedure for the Elaboration of World-  
wide Standards)

1. SCOPE [to be completed, see para 40 of the Report]
2. DESCRIPTIONS
  - 2.1 Chocolate
    - 2.1.1 Chocolate other than Sweet chocolate or plain chocolate or Unsweetened chocolate is the homogeneous product obtained by an adequate process of manufacture, from a mixture of one or more of the following as defined in Standard for cocoa (cacao) beans, cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines) for use in the manufacture of cocoa and chocolate products : Cocoa nib cocoa mass, cocoa press cake, cocoa powder including fat-reduced cocoa powder, with sugars, with or without the addition of cocoa butter as defined in Standard for Cocoa Butters and with or without permitted optional ingredients and which complies with the provisions of 3.1.1.
    - 2.1.2 Sweet chocolate or plain chocolate is the homogeneous product obtained by an adequate process of manufacture, from a mixture of one or more of the following as defined in Standard for cocoa (cacao) beans cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines): cocoa nib, cocoa mass, cocoa press cake, cocoa powder including fat-reduced cocoa powder, with sugars, with  
  
or without the addition of cocoa butter as defined in Standard for Cocoa Butters, and with or without permitted optional ingredients and which complies with the provisions of 3.1.2.
    - 2.1.3 Unsweetened chocolate is the homogeneous product obtained by an adequate process of manufacture, from a mixture of one or more of the following as defined in Standard for cocoa (cacao) beans, cocoa (cacao) nib, cocoa (cacao) mass, Cocoa press cake and cocoa dust (cocoa fines) : Cocoa nib, cocoa mass, cocoa press cake, cocoa powder including fat-reduced cocoa powder, without the addition of sugars, with or without the addition of cocoa butter as defined in Standard for Cocoa Butters, and with or without permitted optional ingredients and which complies with the provisions of 3.1.1.
    - 2.1.4 Milk chocolate is the homogeneous product obtained by an adequate process of manufacture from a mixture of one or more of the following as defined in the Standard for cocoa (cacao<sup>1</sup>) beans, cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines): Cocoa nib, cocoa mass, cocoa press cake, cocoa powder including fat-reduced cocoa powder, with sugars and milk solids, with or without the addition of cocoa butter, with or without permitted optional ingredients and which complies with the provisions of 3.1.3.
    - 2.1.5 Cream chocolate is the homogeneous product obtained by an adequate process of manufacture from a mixture of one or more of the following as defined in the standard for cocoa (cacao) beans, cocoa (cacao) nib, cocoa (cacao) mass, cocoa

press cake and cocoa dust (cocoa fines): Cocoa nib, cocoa mass, cocoa press cake, cocoa powder including fat-reduced cocoa powder, with sugars and cream solids, with or without the addition of cocoa butter and of other milk solids, with or without permitted optional ingredients and which complies with the provisions of 3.1.5.

- 2.1.6 Couverture chocolate is chocolate as defined in the standard and is suitable for covering purposes, with or without permitted optional ingredients and which complies with the provisions of 3.1.1.
- 2.1.7 Milk couverture chocolate is milk chocolate as defined in the standard and is suitable for covering purposes, with or without permitted optional ingredients and which complies with the provisions of 3.1.3.
- 2.1.8 Chocolate Vermicelli and Chocolate Flakes are chocolate in the form of grains and flakes, with or without permitted optional ingredients and which complies with the provisions of 3.1.6.

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- 2.1.9 Milk chocolate Vermicelli and Milk Chocolate Flakes are milk chocolate in the form of grains and flakes, with or without permitted optional ingredients and which complies with the provisions of 3.1.7.
- 2.2 Sugars, for the purposes of this standard, include sucrose, dextrose (anhydrous and monohydrate), dried glucose syrup, lactose, fructose and any other suitable carbohydrate sweetener.

### 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.1 Composition (\*)

##### 3.1.1 Chocolate, Unsweetened Chocolate and Couverture Chocolate

Cocoa butter:	not less than 18% m/m calculated on the dry matter in chocolate and couverture chocolate; not less than 50% m/m and not more than 58% m/m calculated on the dry matter in unsweetened chocolate.
Fat-free cocoa solids:	not less than 14% m/m calculated on the dry matter in chocolate; not less than 2.5% n/m calculated on the dry matter in couverture chocolate.
Total cocoa solids:	not less than 35% m/m calculated on the dry matter in chocolate and couverture chocolate.

##### 3.1.2 Sweet (plain) Chocolate

Cocoa butter:	not less than 18% m/m calculated on the dry matter.
Fat-free cocoa solids:	not less than 6% m/m calculated on the dry matter.
Total cocoa solids:	not less than 30% m/m calculated on the dry matter.

##### 3.1.3 Milk Chocolate and Milk Couverture Chocolate

Fat-free cocoa solids:	not less than 2.5% m/m calculated on the dry matter.
Total cocoa solids:	not less than 25% m/m calculated on the dry matter.
Milk fat:	not less than 3.65% m/m calculated on the dry matter.
Fat-free milk solids:	not less than 10.5% m/m in their natural proportions calculated on the dry matter.
Total fat:	not less than 25% m/m calculated on the dry matter.
Sugars:	not more than 55% m/m.

(\*) In order to facilitate comprehension of the compositional elements, the Secretariat has compiled a table of the data, which is contained in the Annex to Appendix V.

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### 3.1.4. Skimmed Milk Couverture and Skimmed Milk Couverture Chocolate

As for milk chocolate except that there shall be no requirement as to milk fat and the provision for fat-free milk solids shall be 14% m/m in their natural proportions calculated on the dry matter.

### 3.1.5 Cream Chocolate

Fat-free cocoa solids:	not less than 2.5% m/m calculated on the dry matter.
Total cocoa solids:	not less than 25% m/m calculated on the dry matter.
Milk fat:	not less than 7% m/m calculated on the dry matter.
Fat-free milk solids:	not more than 14% and not less than 3% m/m in their natural proportions calculated on the dry matter.
Total fat:	not less than 25% m/m calculated on the dry matter.
Sugars:	not more than 55% m/m.

### 3.1.6 Chocolate Vermicelli and Chocolate Flakes

Fat-free cocoa solids:	not less than 14% m/m calculated on the dry matter.
Cocoa butter:	not less than 12% m/m calculated on the dry-matter.
Total cocoa solids:	not less than 32% m/m calculated on the dry matter.

### 3.1.7 Milk Chocolate Vermicelli and Milk Chocolate Flakes

Fat-free cocoa solids:	not less than 2.5% m/m calculated on the dry matter.
Total cocoa solids:	not less than 20% m/m calculated on the dry matter.
Milk fat:	not less than 3.65% m/m calculated on the dry matter.
Fat-free milk solids:	not less than 10.5% m/m in their natural proportions calculated on the dry matter.
Total fat:	not less than 12% m/m calculated on the dry matter.
Sugars:	not more than 66% m/m.

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### 3.2 Optional ingredients

Spices Salt (sodium chloride)	<u>Maximum level</u> limited by good manufacturing practice	<u>Food</u> All "products described under 2.1
Milk solids in their natural proportions or otherwise	not more than 5% Calculated on the dry Matter	Chocolate and couverture chocolate, unsweetened chocolate, sweet (plain) chocolate chocolate vermicelli and chocolate flakes

#### 4. FOOD ADDITIVES

[The following provisions in respect of food additives and their specifications as contained in section... of the Codex Alimentarius have been endorsed by the Codex Committee on Food Additives except otherwise indicated].

##### 4.1 Alkalizing and neutralizing agents carried over in proportion to the maximum quantity as provided for in Standard for Cocoa (cacao) beans, cocoa (cacao) nib, cocoa (cacao) mass, cocoa press cake and cocoa dust (cocoa fines)

<u>Additive</u>	<u>Maximum level</u>	<u>Food</u>
Emulsifiers: all substances Listed below: Mono- and di-glycerides of edible fatty acids Lecithin	1.5% m/m singly or in combination in the finished product except as provided below: 0.5% m/m of the acetone insoluble component of lecithin	Products described under 2.1 " "
Ammonium salts of phosphatidic Acids	0.7% m/m	" "
Polyglycerol polyricinoleate <u>a/</u>	0.5# m/m	" "
Sorbitan mono-stearate <u>a/</u>	1.0% m/m	" "
Sorbitan tri-stearate <u>a]</u>	1.0% m/m	" "
Polyoxyethylene sorbitan Mono-stearate	1.0% m/m	" "
<u>Flavouring agents</u> Natural flavours as defined in the Codex Alimentarius, and their synthetic equivalents, except Those which would imitate natural chocolate or milk flavours <u>b/</u> Vanillin Ethyl vanillin	limited by good manufacturing practice  in small amounts for flavour adjustment	Products described under 2.1 " "

a/ to be endorsed

b/ Temporarily endorsed in 1969 (Appendix VII, ALINORM 70/1 2 and Appendix II, ALINORM 71/12), See paragraph 16 of the present Report\*

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#### 5. CONTAMINANTS

[The following provisions in respect of contaminants are subject to endorsement by the Codex Committee on Food Additives:]

<u>Contaminant</u>	<u>Maximum level a/</u>	<u>Food</u>
Copper	[20 mg/kg]	Products described under 2.1
Arsenic	[1 mg/kg]	" "
Lead	[2 mg/kg]	" "

## 6. HYGIENE

- 6.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the appropriate sections of the Recommended International Code of Hygienic Practice entitled "General Principles of Food Hygiene as approved by the Codex Alimentarius Commission (Reference No. CAC/ RCP 1-1969)
- 6.2 To the extent possible in good manufacturing practice, the products shall be free from objectionable matter.
- 6.3 When tested by appropriate methods of sampling and examination, the products shall not contain any substance originating from micro-organisms in amounts which may be toxic.

## 7. LABELLING [Subject to endorsement by the Codex Committee on Food Labelling]

In addition to sections 1, 2, 4 and 6 of the General Standard for the Labelling of Prepackaged Foods (Ref. No. CAC/RS 1-1969) the following specific declarations shall be made:

### 7.1 Designation of the product

- 7.1.1 Chocolate: Only products described under section 2.1.1 and complying with the appropriate requirements of section 3.1.1 of the standard may be designated 'chocolate'.
- 7.1.2 Sweet or Plain Chocolate: Only products described under section 2.1.2 and complying with the appropriate requirements of section 3.1.2 of the standard may be designated 'sweet chocolate' or 'plain chocolate'.
- 7.1.3 Unsweetened Chocolate: Products described under section 2.1.3 and complying with the appropriate requirements of section 3.1.1 of the standard shall be designated 'unsweetened chocolate'.
- 7.1.4 Couverture Chocolate: Only products described under section 2.1.6 and complying with the appropriate requirements of section 3.1.1 of the standard may be designated 'couverture chocolate'. Couverture chocolate containing not less than 16% m/m fat-free cocoa solids, calculated on the dry matter, may be designated 'dark couverture chocolate'.
- 7.1.5 Milk Chocolate and Milk Couverture Chocolate: Only products described under section 2.1.4 and 2.1\*7 and complying with section 3.1.3 of the standard may be designated as 'milk chocolate' and 'milk couverture chocolate' as appropriate.
- 7.1.6 Skimmed. Milk Chocolate and Skimmed Milk Couverture Chocolate: Products not complying with section 3.1.3 but complying with section 3.1.4 of the standard

shall be designated 'skimmed milk chocolate' or 'skimmed milk couverture chocolate' as appropriate.

a/ Not endorsed, decision postponed. Limits for lead, in particular, to be reconsidered (See ALINORM 70/12 para. 18). See also para 55 of the present Report.

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7.1.7 Cream chocolate: Only products described under section 2.1.5 and complying with section 3.1.5 of the standard may be designated 'cream chocolate'.

7.1.8 Chocolate Vermicelli and chocolate Flakes: Only products described under section 2.1.8 and complying with section 3.1.6 of the standard may be designated 'chocolate vermicelli' or 'chocolate flakes' as appropriate.

7.1.9 Milk Chocolate Vermicelli and Milk Chocolate Flakes: Only products described under section 2.1.9 and complying with section 3.1.7 of the standard may be designated 'milk chocolate vermicelli<sup>1</sup>' or 'milk chocolate flakes' as appropriate.

### 7.2 List of ingredients

A complete list of ingredients shall be declared in descending order of proportions and alkalizing and neutralizing agents, 3mulsifiers and flavouring agents shall be declared under generic or specific names.

### 7.3 Declaration of cocoa butter content on couvertures

Couverture Chocolate, Milk Couverture Chocolate and Skimmed Milk Couverture Chocolate shall carry an additional declaration of the Cocoa butter content of the product

### 7.4 Net Contents

7.4.1 The net contents shall be declared by weight in either the metric system ("Système International" units) or avoirdupois or both systems of measurement as required by the country in which the food is sold.

7.4.2 Small units of up to [50] g may be excluded from a declaration of net weight on the label.

### 7.5 Name and address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

### 7.6.1 Country of origin

The country of origin of the products covered by the Standard shall be declared, unless they are sold within the country of origin, in which case the country or origin need not be declared.

7.6.2 When a food undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

## 8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling unless otherwise indicated:

8.1	<u>Analysis</u> <u>Criterion</u>	<u>Method</u>	<u>Food</u>
	Cocoa shell	AOAC-OICC study under way based in the stone cell count AOAC (1970) 13.023-13.027 and Van Brederode - Reeskamp. Method not yet proposed.	All products described under Section 2.1
8.1.2	Total ash	AOAC-OICC study well advanced.	" "
8.1.3	Ash insoluble in hydrochloric acid	Methods not yet proposed.	

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	<u>Criterion</u>	<u>Method</u>	<u>Food</u>
8.1.4	pH <u>1</u> /	AOAC-OICC method. AOAC (1970) 13.008. <u>To be endorsed</u>	All products described under section 2.1
8.1 .5	Percentage of cocoa butter	Through a) Total fat. OICC-AOAC method Ref. AOAC (1970) 13.035-13.036 <u>2</u> / <u>AND</u> b) Fatty acid composition determined by GLC. Provisional OICC method not yet approved by AOAC. Method not yet proposed.	Products described under subsections 2.1 .1 , .2.1 .2, 2.1.3. 2.1.6 and 2.1.8 " "
8.1 .6	Moisture content (loss on drying)	a) AOAC method (1965) 12.001-T2.D02 <u>2</u> / <u>To be endorsed</u>	Products described under section 2.1, except, unsweetened chocolate
8.1 .7	-Fat-free cocoa solids (or dry, fat-free cocoa mass)	b) OICC 3E (1952). <u>To be endorsed 3</u> / a) AOAC method (1965) 12.021. <u>To be endorsed</u>  b) OICC study under way. Method not yet proposed	Unsweetened Chocolate <u>3</u> / Sweet (plain)  chocolate containing cocoa, sugar and fat only All products described under section 2.1, except Sweet (plain) Chocolate containng

8.1 .8	Total cocoa solids	By calculation from actual fat-free cocoa solids and total fat contents. Milk fat and fat other than cocoa butter are to be deducted from total fat in case of milk chocolates. Method not yet proposed	Cocoa Sugar and fat only. All products described under section 2.1
8.1.9	Milk fat	GLC technique envisaged by the AOAC-OICC, but not expected in the near future. - Semi-micro indices OICC p.8i 1962 and Mole Dercent butyric acid AOAC (1965) 26.034-26.039 are provisionally indicated. Method not yet proposed	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9

1/ For cheking the alkali-treatment

2/ Already endorsed. To be reconsidered at the 7th session of the Codex Committee on Method of Analysis and Sampling (ALINORM 71/23 para 62)

3/ See ALINORM 71/23 para 62 (k).

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	<u>Criterion</u>	<u>Method</u>	<u>Food</u>
8.1.10	Fat-free milk solids	OICC study under way. Methods based on milk protein: AOAC (1970) 13.051, OICC 6b/1963 and OICC 6c/1963 are provisionally indicated. Method not yet proposed	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9.  The determination of milk protein is not applicable to chocolate products containing milk protein which have been submitted to high heat treatment. <u>3/</u>
8.1.11	Total fat	OICC-AOAC method: AOAC (1970) 13.035-13.036 <u>1/</u>	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9
8.1 .12	Identification of sugars	Paper chromatography OICC 7a/ 1960 provisionally indicated.	Products described under 2.1.4, 2.1.5,

		Method not yet proposed AIFF 2.1.7 and 2.1.9 study under way (enzymatic	
8.1 .13	Determination of sugar(s) content	Products described under subsections under way, using GLC of TMS-sugar-derivatives. OICC 7d/1960 or OICC 7e/1963 for products containing only sucrose, and OICC 7b/1960 or OICC 7c/1960 or OICC 7d/1960 for products containing only sucrose and lactose are provisionally indicated. Methods not yet proposed	2.1.4, 2.1.5, 2.1 .7 and 2.1.9
8.1.14	Copper	AOAC (1965) 24.023-24.028 <u>1/ 4/</u>	All products
8.1 .15	Arsenic	AOAC (1965) 24.011-24.014 <u>1/</u>	described under
8.1.16	Lead	AOAC (1965) 24.053 <u>1/4/</u>	section 2.1

1/ Already endorsed. To be reconsidered at the 7th session of the Codex Committee on Methods of Analysis and Sampling (ALINORM 71/23, paragraph 62)

2/ Association internationale des fabricants de confiserie.

3/ A method for the determination of fat free milk solids in products submitted to high heat treatment should also be proposed for endorsement.

4/ Temporarily endorsed in 1969 (Appendix VII, ALINORM 70/1 2 and Appendix II, ALINORM 71/12). See paragraph 16 of the present Report.

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Annex to Appendix V

SECTION 3 - ESSENTIAL COMPOSITION AND QUALITY FACTORS

(perpared in table form by the Secretariat)

	Cocoa			Milk			Cocoa	Optional
	Cocoa butter	Fat-free <u>1/</u>	Total <u>1/</u>	Milk	Fat-free <u>2/</u>	Total	Milk sugar	
	<u>1/</u>	cocoa solids	cocoa solids	fat <u>1/</u>	milk solids	fat <u>1/</u>		Spices salts
Chocolate	▶ 18	▶ 14	▶ 35					Maxi\le\ 5

Sweet (plain) chocolate	▶ 18	▶ 6	▶ 30							\\e\ 5
Unsweetened chocolate	▶ 50									\\e\ 5
	▶ 58									\\e\ 5
Couverture chocolate	▶ 18	▶ 2.5	▶ 35							\\e\ 5
(Dark couverture chocolate	▶ 18	▶ 16	▶ 35							
Milk chocolate		▶ 2.5	▶ 35	▶ 3.65	▶ 10.5	▶ 25	▶ 5.5			
Milk couverture chocolate		▶ 2.5	▶ 25	▶ 3.65	▶ 10.5	▶ 25	▶ 5.5			
Skimmed Milk chocolate		▶ 2.5	▶ 25		▶ 14		▶ 5.5			
Skimmed milk couverture		▶ 2.5	▶ 25		▶ 14		▶ 5.5			
Chocolate							▶ 5.5			
Cream chocolate		▶ 2.5	▶ 25	▶ 7	▶ 3 ▶ 14	▶ 25	▶ 5.5			
Chocolate vermicelli	▶ 12	▶ 14	▶ 32							\\e\ 5
Chocolate flakes	▶ 12	▶ 14	▶ 32							\\e\ 5
Milk chocolate vermicelli		▶ 2.5	▶ 20	▶ 3.65	▶ 10.5	▶ 12	▶ 6.6			
Milk chocolate flakes		▶ 2.5	▶ 20	▶ 3.65	▶ 10.5	▶ 12	▶ 6.6			

1/ All figures are calculated on the dry matter of the product

2/ The various constituents of fat-free Milk solids should appear in their natural proportions

3/ Milk solids (butter fat, non fat solids) may appear in their natural proportion or otherwise

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Appendix VI

**PROPOSED DRAFT STANDARD FOR  
COMPOSITE AND FLAVOURED CHOCOLATES**

(At Step 4 of the Procedure for the  
Elaboration of World-Wide Standards)

1. SCOPE [To be elaborated]
2. DESCRIPTION
  - 2.1 Composite chocolate is one of the chocolates defined under 2.1.1 - 2.1.7 of Standard for Chocolate to which may have been added edible substances with the exception of flour, starch and fats not derived from permitted ingredients.
  - 2.2 Flavoured chocolate [to be elaborated]
3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

- 3.1 Composite chocolate
- 3.1.1 Composite chocolate shall contain not less than 60% m/m of chocolate as defined under 2.1.1 to 2.1.7 of Standard for Chocolate.
- 3.1.2 The addition of substances such as honey, almonds, walnuts, hazelnuts, dried fruits, candied fruits or other fruit products, cream, butter, eggs malt extract or other malted cereal grains is permitted.
- 3.1.3 If substances are added both in the form of visible and separable pieces and in a form which is, in practice, indiscernible, their total amount is subject to a maximum of 40% m/m of the product; if they are added in a form so as to be, in practice, indiscernible, the total amount of these added substances shall not exceed 30% m/m of the product.
- 3.2 The addition of milk solids other than those provided for in the chocolate fraction defined under 2.1.1 to 2.1.7 of Standard for Chocolate is not permitted under this provision,

3.2 Flavoured Chocolate [to be elaborated]

4. FOOD ADDITIVES

Food additives carried over in proportion to the maximum quantities as provided for in Standard for Chocolate.

5. CONTAMINANTS

The following provisions in respect of contaminants are subject to endorsement by the Codex Committee on Food Additives:

<u>Contaminant</u>	<u>Maximum level(a)</u>	<u>Food</u>
Copper	[20 mg/kg]	All products
Arsenic	[1 mg/kg]	Described
Lead	[2 mg/kg]	under 2

6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this Standard be prepared in accordance with the appropriate sections of the Recommended International Code of Hygienic Practice entitled "General Principles of Food Hygiene" as approved by the Codex Alimentarius Commission (Reference No. CAC/RCP 1-1969)

(a) Not endorsed. Decision postponed. Limits for lead, in particular, to be reconsidered (see ALINORM 70/12 para 18). See also para 55 of the present Report.

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

6.3 When tested by appropriate methods of sampling and examination, the products shall not contain any substances originating from micro-organisms in amounts which may be toxic.

7. LABELLING (subject to endorsement by the Codex Committee on Food Labelling)

In addition to Sections 1, 2, 4 and 6 of the General Standard for the Labelling of Pre-packaged Foods (Ref. No. CAC/RS 1-1969) the following specific declarations shall be made:

7.1 Designation of the Product

7.1.2 Composite Chocolate

7.1.2.1 If the total of the added substances is lower than 5% m/m of the final product, the designation of the chocolate may not be accompanied by a reference to the added substances.

7.1.2.2 If the amount of one or more of these added substances is equal to or higher than 5% m/m of the final product, a reference to the substance or substances shall be included in the designation of the chocolate.

7.1.2.3 Additions of coffee will be subject to a minimum of 1% for declaration purposes.  
1/

7.1.2.4 Products containing milk solids will not be described as "composite chocolate" but will be labelled in accordance with the provisions of the labelling section of the Standard for Chocolate and in accordance with this proposal.

7.1.3 Flavoured Chocolate

7.1.3.1 The characterizing flavour, other than chocolate flavour, shall be declared.

7.1.3.2 Ingredients which are especially aromatic and characterise the product shall form part of the name of the product (e.g. Mocca Chocolate).!/  
1/

7.2 List of Ingredients

A complete list of ingredients shall be declared in descending order of proportions and alkalizing and neutralizing agents, emulsifiers and flavouring agents shall be declared under generic or specific names.

7.3 Net Contents

7.3.1 The net contents shall be declared by weight in either the metric system ("Système International" units) or avoirdupois or both systems of measurement as required by the country in which the food is sold.

7.3.2 Small units of up to [50]g may be excluded from a declaration of net weight on the label.

7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

7.5 Country of Origin

7.5.1 The country of origin of the products covered by the standard shall be declared, unless they are sold within the country of origin, in which case the country of origin need not be declared.

1/ Note by the Secretariat: Products such as Mocca chocolate could be considered either as Composite or Flavoured chocolate.

Appendix VI

7.5.2 When a food undergoes processing in a second country which changes its

nature, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

## 8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

### 8.1 Analysis

- 8.1.1 Percentage of chocolate: methods to be developed case by case depending on the types and the physical state of the optional components. [to be completed later]

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Appendix VII

## ASSESSMENT OF COCOA BUTTER UNSAPONIFIABLE MATTER

### Report of the ad hoc Committee

In report document CX/CPC 71/2 it was recommended that the study of unsaponifiable matter in cocoa butter be continued and it was suggested that an ad hoc Committee of technical experts be appointed to detail a programme which would provide more precise information on the unsaponifiable matter content of cocoa butters.

The Chairman, Mr. Ruffy, called for volunteers and appointed the following Committee:

Messrs MEYERS, Chairman, U.S.A.  
SCHUBIGER, Switzerland  
FINCKE, Federal Republic of Germany  
WIGGALL, United Kingdom  
VAN-DER-PUIJE Ghana  
ROSTAGNO, OICC  
SCHOEMAKER, Netherlands

The above Committee considered the limitations of the previous study as well as the lack of precise analytical data from any and all laboratories. It was also believed that the method was not specific enough in all details. Because of the nature of the problem and the work involved, the Committee decided that the programme would have to be designed for a statistical analysis and that therefore the study should be divided into three phases involving Youden's Ruggedness Test.

#### I. Ruggedness Test (according to Youden)

Dr. Fincke and Mr. Rostagno will test the method by checking all the critical points and possible modification in the procedure on samples of cocoa butter with different amounts of unsaponifiable matter. A reagent blank will also be run. Their results are to be summarized and a new text of the IUPAC method is to be finished by February 1. 1972.

#### II. Reproducibility Test

An invitation to participate in this test will be extended to member nations. Because of the importance of this study it is hoped that all laboratories will co-operate. A list of participating laboratories must be submitted to Mr. E.w. Meyers by January 1972. Samples will be distributed to those laboratories and the results are to be submitted to

Mr. E.w. Meyers not later than May 1. 1972.

Upon the completion of Phase XI, samples will be submitted to those laboratories which have co-operatively worked out the problem of satisfactorily duplicating each others results. The number of samples to be assigned to each laboratory will depend on the number participating.

The following types of cocoa butter will be secured through the agents listed and in accordance with the schedule given below.

Types of cocoa butter to be tested:

- A. Press Butter - to be obtained from nibs from roasted beans, 3 samples
- B. Expeller Butter - to be obtained from raw whole beans (only), 3 samples
- C. Solvent Extraction (Butter) -  
to be extracted from roasted whole beans (in a two step procedure):  
1. Hexane : 1 sample each  
2. Trichloroethylene: 1 sample each

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Origin and Agent

<u>Origin</u>	<u>Press</u>	<u>Agent</u>	<u>Expeller</u>
Ghana	Van-der-Puije		Schoemaker
Nigeria	Olutayo		—
Ivory Coast	Dupont		—
Brazil	De Oliveira		De Oliveira
Cameroon	Dupont		Dupont

The Committee agreed that the solvent extracted samples are of necessity to be laboratory prepared.

Mr. E.W. Meyers and Mr. W. Rostagno will provide the extracted butter samples. All results are to be submitted to Mr. E.W. Meyers by November 1, 1972.

General remarks

- A. The three samples of Press and Expeller butter are to be secured at three different times and should be representative of crop production.
- B. Each sample is to consist of 5 kg.
- C. The shell content of the nibs to be used for the preparation of the press butter shall be about 4%, on a fat-free cocoa dry matter basis.
- D. The residual cakes after solvent extraction should have not more than 0.3% fat.
- E. The study shall first be conducted on the principal crop. According to the results of this study, it will be decided if a further study on the secondary crop is necessary.

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APPENDIX VIII

## METHODS OF ANALYSIS FOR COCOA PRODUCTS AND CHOCOLATE

### Report of the Ad hoc Working Party

Upon request of the Committee, an Ad hoc working party, comprising Messrs. Fincke, Meyers, Rostagno, van Brederode and Wiggall, examined under the chairmanship of Mr. Schubiger the status of the methods of analysis for cocoa products and chocolate (document CX/CPC 71/7) and made the following comments:

#### I. METHODS ALREADY ENDORSED BY THE COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING:

- i) The determination of the unsaponifiable matter (f)<sup>1/</sup> has to be put in [ ] until the work on this determination is finished according to the special programme.
- ii) By using the same samples of the unsaponifiable matter programme, the following additional tests will be carried out, in order to collect first hand figures: refractive index 40<sup>o</sup>c (b), saponification value n<sub>D</sub> (d), iodine value (e) and fatty acid composition.

The last determination will be done under the coordination of Mr. Chaveron, Paris, and by applying the provisional IOCC Methods (see II, 6). The other three tests will be coordinated by Mr. Meyers. They all have to follow the time table set up for the unsaponifiable matter programme.

- iii) Mr. Fincke will make available a document on the theoretical inter-dependence of the refractive index, iodine value and saponification value.
- iv) The figures to be stated in the Standard for Cocoa Butter are understood to cover the natural range for all admitted types of cocoa butter, but not to include an allowance for the analytical error, specific to each method.
- v) The total fat determination (m) should also cover the cocoa cakes and cocoa powders.

#### II. METHODS NOT YET ENDORSED BY THE COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING:

(\*) (To be presented to the Committee on Methods of Analysis and Sampling for endorsement)

1. Cocoa shell: An AOAC-OICC study is under way, based on the Stone cells count (AOAC (1970) 13.023 - 13.027 and van Brederode-Reeskamp). A method should not yet be recommended.
2. Total ash, HC1 insoluble ash: An AOAC -OICC study is well advanced. A proposal is being elaborated.
3. Melting behaviour of cocoa butter: An AOAC-IOCC study is under way, specially concerning the preparation of the sample. A proposal will be submitted in short time.
4. Blue value: The method should be kept in square brackets, waiting for a further appraisal on its usefulness.
5. Extinction value: The provisional IOCC method has been issued and should be quoted for the time being, pending an approval by the AOAC.
6. Fatty acid composition : The provisional OICC method should be quoted for the time being, pending an approval by the AOAC.

1/ The sections referred to here ((f) etc...) are those of paper CX/CPC 71/7.

## APPENDIX VIII

7. Cocoa butter: The method has been incorporated under (m) of Section I(v).
- (\* ) 8. 9. 10. Fat-free cocoa solids: An OICC study is under way. For the time being the AOAC method 12.021 (1965) should be proposed to the Committee on Methods of Analysis for the case of plain chocolate containing cocoa, sugar and fat only.
11. Milk fat: The elaboration of GLC technique is envisaged by the AOAC-OICC; no method to be expected in the near future. The two older OICC and AOAC methods may be quoted in the meantime,
12. Fat-free milk solids: An OICC study is under way. It is too early to predict its issue. The older OICC and AOAC methods should be quoted for the time being. It should however be remembered that the milk protein determination is not applicable to chocolate products containing milk protein which have been submitted to high heat treatment.
13. Sugars: An AIFC (Ass. Intern, Fabricants de Confiserie) study is under way on the use of enzymatic methods. The AOAC-OICC envisage also the application of GLC of TMS-sugar-derivatives. For the time being the older OICC and AOAC methods should be quoted. Difficulties would anyhow arise on the interpretation of the results concerning the reducing sugars.
- (\* ) 14. pH: The common AOAC-OICC method has been issued. It should be proposed to the Committee on Methods of Analysis, for checking alkali treatment.
15. Chocolate in composite chocolate: Methods to be developed case by case depending on the types and the physical state of the optional components.
- (\* ) 16. Cut test: The Method ISO/R 114 should be proposed to the Committee on Methods of Analysis,
- (\* ) 17. Sampling of cocoa beans: The Method ISO/R 2292 should also be proposed to the Committee on Methods of Analysis.

### III. MISCELLANEOUS

- The reference to the OICC sampling method under Section 8.2 of the standard for Cocoa Butter should be deleted, pending the general appraisal of sampling methods by the Committee on Methods of Analysis and Sampling,
- The total cocoa solids assessment (Standard IV, Section 7.1.) is not actually a method but a calculation procedure. It should be issued as soon as a method on fat-free cocoa solids, milk fat, and fat other than cocoa butter (to be deducted from total fat) is ready.

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APPENDIX IX

### PROVISIONS FOR WHITE CHOCOLATE

(Proposal made by the Swiss Delegation)

As has been pointed out several times, the term "white chocolate" has been spontaneously coined by consumers for the product made with cocoa butter and with a

chocolate taste. It certainly does not lend itself to confusion; but to justify its designation the product must contain sufficient cocoa butter to give it a chocolate taste. Our experience shows that this is the case in a product with the following composition which we propose as the standard of composition for

### 3.1.8 "White Chocolate

Cocoa butter:	not less than 20%, calculated on the basis of dry matter
Milk fat:	not less than 3.65%, calculated on the basis of dry matter <sup>1/</sup>
Fat-free milk solids:	not less than 10.5% in their natural proportion, calculated on the basis of dry matter
Sugars:	Not more than 55%".

#### Comments

White chocolate is a product obtained by a process of manufacture similar to the one for milk chocolate. The only essential difference consists in the fact that cocoa butter is used as only cocoa constituent. This product can therefore not have the usual brown colour of chocolate nor contain fat-free cocoa solids. But it contains enough cocoa butter to have the characteristic odour and taste of chocolate so that from this point of view the consumer is not misled. As regards the colour, the consumer is informed by the designation of the product which indicates white chocolate. Based on these considerations the following description could be introduced in the standard for CHOCOLATE:

2.1.10 "White chocolate is the homogeneous product obtained by an adequate process of manufacture from the following substances in different proportions: cocoa butter, milk solids and sugars".

Finally, in section 7 LABELLING, under 7.1 Designation of the product a special item with the following wording should be inserted:

"White chocolate: Only products described under section 2.1.10 and complying with the requirements of section 3.1.8 of the standard may be designated "white chocolate"."

<sup>1/</sup> The Secretariat has changed the previous figure of 3.5% in 3.65% in accordance with the decision taken in paragraph 44 of this report.