

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION OF THE UNITED
NATIONS

WORLD HEALTH ORGANIZATION

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COMMISSION Eleventh Session 1976

REPORT OF THE CODEX. COMMITTEE ON COCOA PRODUCTS AND
CHOCOLATE
Eleventh Session
Zurich, 2-6 December 1974

INTRODUCTION

1. The Codex Committee on Cocoa Products and Chocolate, hosted by the Government of Switzerland, held its eleventh session in Zurich, from 2-6 December 1974.
2. The session was opened by Dr. E. Matthey, Chairman of the Committee, who welcomed the participants *on* behalf of the Swiss Government.
3. Representatives from 24 countries were present : Austria
Belgium
Brazil
Cameroon
Canada
Czechoslovakia
Finland
France
Fed. Rep. of Germany
Ghana
Hungary
Ireland
Italy
Ivory Coast
Netherlands
Nigeria
Poland
Senegal
Sweden
Switzerland
Togo
United Kingdom
United States of
America
Yugoslavia

Observers from the following nine international organizations were also present:

Association of Official Analytical Chemists (AOAC)
European Economic Community (EEC)
Cocoa Producers' Alliance (COPAL)
International Organization of Consumers' Unions (IOCU)
Office international du cacao et du chocolate (OICC)
International Cocoa Trades Federation (ICTF)
Association of the Chocolate and Confectionery Industries of the EEC
(CAOBISCO)
International Cocoa Organization (ICCO)
International Association of Seed Crushers (IASC)

A list of participants, including officers from FAO, is set out in Appendix I to this Report.

APPOINTMENT OF RAPPORTEUR

4. The Committee appointed Mr. R. Sawyer (United Kingdom) as Rapporteur.

ADOPTION OF AGENDA

5. The Committee agreed to adopt the Provisional Agenda with a change in the order of the items to be discussed.

GENERAL STATEMENTS

6. The Representative of the EEC stated that written comments which had been sent to the Secretariat earlier during the year had evidently not been received and had therefore not been included in the documents containing the summary of comments. In view of the fact that the observations were to be presented jointly some member governments had not sent in any separate comments. The EEC comments were presented to the Committee in a conference room document.

7. The Chairman pointed out that comments had been received from several governments which were not represented at the meeting. Where appropriate he would draw the attention of the Committee to these observations.

MATTERS ARISING FROM THE REPORT OF THE TENTH SESSION OF THE CODEX ALIMENTARIUS COMMISSION

8. The Secretariat informed the Committee that, as reported in CL 1974/44, the Codex Alimentarius Commission had decided that the Draft Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nibs, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines) for use in the manufacture of cocoa and chocolate products which was before it at Step 8 of the Procedure should be returned to Step 7 for further consideration by the Committee.

9. The decision was based on the opinion of some delegations that the standard should be revised especially with regard to the provisions defined under the heading "Essential Composition and Quality Factors".

10. Part of the Draft Standard was based on the FAO Model Ordinance prepared by the FAO Group on Cocoa and the Commission had agreed that in all probability the FAO Model Ordinance would require amendment.

11. The Committee was informed that the FAO Study Group would meet in mid-1975 and that the Commission had requested producing countries to send relevant data to the Secretariat so that the FAO Study Group on Cocoa could take them into account when reconsidering the Model Ordinance.

12. The Committee agreed not to consider the Standard for Cocoa Beans until such time as the FAO Study Group on Cocoa had completed any necessary revision.

MATTERS ARISING FROM THE 1973-74 SESSIONS OF OTHER CODEX COMMITTEES

Codex Committee on Edible Ices - Proposed Draft Standard for Filled Chocolate "Coatings"

13. The Committee on Edible Ices requested the views of the present Committee on the use of the term "chocolate" for the coating of edible ices. During their discussions views were expressed that 1) if the term were to be allowed then the coating would have to comply with the provisions of the Codex Standard for Chocolate, otherwise the consumer would be misled, and 2) for technological reasons

the coating used for the covering of edible ices would have to be different from that specified by the Codex Standard for chocolate.

14. The delegation of France pointed out that true chocolate coatings could be used in craft industries whilst other types of product were used in the large scale manufacture of pre-packaged ices. The buyer must therefore be made aware of the difference between the two classes of products.

15. The delegation of the United Kingdom said that in the UK two kinds of coatings were manufactured; one in which true chocolate was extended by fat in the ratio of about two parts chocolate to one part fat and the other composed of cocoa, fat and other ingredients.

16. The representative of the EEC said that the EEC had resolved the problem by authorizing manufacturers to use labelling in such a way as not to mislead the consumer.

17. It was generally agreed that the term "chocolate" could not stand alone unless the coating met the Codex Standard. Some delegations pointed out that since it was not technologically possible to use couverture chocolate on edible ice and that since fat or oil must be added the product was no longer chocolate and as such was no longer entitled to the name. Others thought that the term chocolate suitably qualified, for example, "chocolate flavoured" should be allowed for such coatings.

18. Other delegations did not see the necessity of employing the word chocolate at all. The delegations of Ghana and Brazil pointed out that the flavour was derived from cocoa and not chocolate.

19. Several delegations reported on the names in common use in their countries: "Choco-Ice" in the Benelux, "Choc ice" in the United Kingdom and Ireland. In this connection it was also suggested that a new name or names be coined to designate these products.

20. The delegation of the United States pointed out that the problem was not restricted to edible ice coatings but extended to coatings for bakery products as well. It suggested that the Committee adopt as a matter of policy the principle that products which derived their characteristic flavour from cocoa powder rather than from chocolate as defined should be described as "chocolate flavoured".

21. The Committee noted that a majority thought that the term "chocolate" should not be used unless this product conformed to the Codex Standard for Chocolate and a majority agreed that where coatings and glazes could not properly be described as chocolate, then they should be described in terms of the ingredients used and the ingredients should be mentioned in the labelling section.

Codex Committee on Food Hygiene

22. The Committee noted that the Codex Committee on Food Hygiene had endorsed hygiene provisions for the following standards:

(ALINORM 76/13, para 6)

- Draft Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nibs, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines), for use in the manufacture of Cocoa and Chocolate Products
- Draft Standard for Cocoa Butters
- Draft Standard for Chocolate

- Draft Standard for Cocoa Powder (Cocoa) and Sweetened Cocoa Powder

CONSIDERATION OF DRAFT STANDARD FOR COCOA BUTTERS AT STEP 7

23. The Committee considered the above draft standard contained in Appendix III of ALINORM 74/10 at Step 7 of the Codex Procedure in the light of comments received from Governments (CX/CPC 74/3, Chapters III and IV).

Descriptions

24. It was pointed out that at the 10th Session it had been decided to include low-fat cocoa press cake in the list of raw materials to be used in the manufacture of expeller cocoa butter. Sub-section 2.1.2 in the draft standard had not been amended to reflect this decision. The Committee reconfirmed its decision.

Essential Composition and Quality Factors

25. The Committee had a full discussion on the characteristic values used to assess the composition and quality factors of the various types of cocoa butters. A number of these values had been placed in square brackets at the last meeting.

26. The delegation of Brazil proposed to lower the minimum saponification value from 192 to 188 for press cocoa butter. The Committee agreed with the new limit. It decided furthermore that it should apply to all four types of cocoa butter.

27. A number of delegations proposed to raise the upper limit for the saponification value for all types of cocoa butter from 196 to 198. The delegation of Ghana stated that in analysing press cocoa butter no saponification values above 195 had been found in its country. The delegation of the UK pointed out that subsequent to the last session of the Committee further analysis had been carried out on types of cocoa butter which had been produced from beans imported from different countries and saponification values just under 200 had been noted. The other characteristic values of the analysed butters however fell within the ranges proposed for these in the standard.

28. Several other delegations pointed out that such high values did not normally occur in the butter of the cocoa beans traded internationally but that they seemed to be limited to beans from certain areas, in one case an area with a very limited production. They were therefore of the opinion that the quantities concerned did not warrant inclusion in the standard of such high values as had been proposed as these might be misused to cover adulterated products.

29. It was stated however that judging by the data made available and by not expanding the present range, non-tariff trade barriers would be erected if governments of importing countries were to accept the standard without reservations.

30. From the discussions it appeared initially that no consensus of opinion could be arrived at but the Committee agreed to specify 188-198 as limits for the range of saponification values of the four types of cocoa butter.

31. To accommodate the cocoa butters with exceptionally high saponification values it was further agreed to include a footnote stating that "Exceptionally the upper limit may be exceeded; however, cocoa butter for the manufacture of chocolate, composite and flavoured chocolate, filled chocolate and white chocolate must comply with the figures in this standard". It was also agreed that the exceptional figures which gave rise to the query should be confirmed at a later date.

32. The delegations of Brazil, Cameroon, Ghana and Nigeria stated their reservations concerning the inclusion of the footnote.
33. The Committee also considered the need for different ranges for the iodine values of the various cocoa butters. It was pointed out that the parameters were not accurate enough to allow for a differentiation and that during the study which had been the basis for the figures under discussion a certain spread in the analytical results had been noted. Some delegations held the view, however, that only by maintaining the different ranges would it be possible to distinguish between press cocoa butter and the three other types covered by the standard.
34. The Committee agreed to require that iodine values should fall in the range between 33-42 for all four types of cocoa butter. The delegations of Ghana, the Netherlands and Nigeria reserved their position as they preferred the figures presently contained in the standard to be retained.
35. It was pointed out that at the previous meeting of the Committee data had been presented which indicated that the values found for the refractive index of genuine cocoa butters had a spread which fell outside the proposed range. The Committee agreed to delete the square brackets for all types of cocoa butters and to retain the proposed figures. It further agreed to the inclusion of the footnote which had been included for the saponification value and which allowed with certain restrictions the upper limit to be exceeded in exceptional cases. The delegation of Ghana, supported by the delegation of Austria, stated that it would have preferred the upper limit of the allowable range to be reduced from 1.459 to 1.458.
36. General agreement existed to delete the square brackets around the limit for the characteristic values for both parameters, slip point and clear melting point, of the melting behaviour for all four types of cocoa butter. It was not considered necessary to provide for exceptional values outside the range provided for. A similar decision was taken with regard to the limits for free fatty acids.
37. During the discussion the Committee was informed that the working group to study the above parameters was considered to have completed the assigned task at the tenth session. Some delegations pointed out that newer methods of assessment of the various cocoa butters were now being used, and that the Committee should consider the setting up of a working group to collect data on, for example, the fatty acid profiles of the cocoa butters and fats.
38. In reply to a request from the Chairman the President of the Expert Committee of the International Office of Cocoa and Chocolate stated that his organization would be willing to prepare a paper on the availability of modern methods. e.g. gas liquid chromatography, for the assessment of the various types of cocoa butter, to examine analytical data and to make proposals to the Committee on interpretation.
39. The Committee agreed to raise the maximum level of unsaponifiable matter for expeller butter to 0.5% which was the same as for solvent extracted and for refined cocoa butter. The delegation of Brazil reiterated its proposal to raise the upper limit of unsaponifiable values for press cocoa butter from 0.35% to 0.38%. It was pointed out, however, that by retaining the present figure and by taking into account the accuracy of the proposed method of analysis which allowed for a tolerance of 10% the higher value suggested was covered. The Committee agreed to leave the limit for press cocoa butter unamended.

Food Additives

40. The Committee was reminded that it was necessary to specify processing aids used in the manufacture of cocoa butters since they were included in the definition of Food Additives and, as such, information should be forwarded for consideration to the Codex Committee on Food Additives. In accordance with the "General Principles for Food Additives", reports of the Commodity Committees should include sufficient information on the basis of which the recommendation was made. The Codex Committee on Food Additives would then consider whether or not the need for the additive had been technologically justified by the Committee.

41. There was some discussion by the Committee on the use of processing aids. It was suggested that examples might be found in the list of Additives Evaluated for Their Safety in use in Food (CAC/FAL 1-1973) and in the reports of the Codex Committee on Fruit Juices and the Codex Committee on Fats and Oils.

42. The Committee agreed to form a working group coordinated by the delegation of Switzerland with the participation of representatives from the Netherlands, UK, USA, Yugoslavia and OICC which would put proposals for processing aids to the Committee before the end of the meeting.

Report of Working Group on Food Additives in Cocoa Butter

43. The Committee took note of the report of a Working Group on Food Additives in Cocoa Butter, which had been set up at the beginning of the Session and had been charged to make proposals concerning processing aids (see also paragraph 42 of this report). The Working Group had recognized that since no residues of the processing aids remained in the finished product the Codex Committee on Fats and Oils had removed all reference to processing aids in its standards.

44. The Working Group therefore recommended to the Committee that the present provision for processing aids which covered clarifying and filtration aids, neutralizing agents and bleaching agents be deleted in its entirety. As a consequence of this deletion, reference to specific bleaching agents in sub-section 2.1(d) was deleted.

45. The Working Group had considered possible extraction solvents as contained in the Codex List of Additives Evaluated for their Safety in Use in Food (CAC/FAL 1-1973) and had agreed to recommend only two for use in the extraction of cocoa butter: hexane 62°C - 82°C and 1,1,2-trichloroethylene. The relatively broad temperature range for Hexane was explained to be necessary for processing conditions in both temperate and tropical countries. It was further pointed out that the Working Group has proposed a limit of 0.1% for the content of aromatic hydrocarbons in the solvent and also considered that hexane 62°C - 82°C should be regarded as including any petroleum mineral hydrocarbon with a boiling range between 62°C and 82°C.

46. Trichloroethylene was chosen for its non inflammable properties. The delegation of the Federal Republic of Germany reserved its position with regard to the use of Trichloroethylene pending consultation with national health authorities. The Working Group considered that a residue level of solvents in the finished product should be specified and recommended a maximum level of 5 mg/kg. It had suggested further several methods of analysis. The OICC was requested to make a definite recommendation in this regard. Pending this advice the Committee agreed to make a provisional reference to a method for solvent residues in the section for Methods of

Analysis and Sampling. The Committee concurred with the recommendation of the Working Group.

Lot Identification

47. The Committee noted that the Codex Committee on Food Labelling had included in standards for other commodities a provision for lot identification. It was agreed to adopt similar wording in the various standards under consideration.

Methods of Analysis and Sampling

48. Comments from Governments agreed generally on the use of Atomic Absorption (AAS) in the determination of heavy metals in Cocoa Products and Chocolate although there was also some expression of opinion that classical methods should not be abandoned until AAS methods were more widely tested.

49. It was also pointed out that more appropriate methods of analysis were urgently required than those already given and that the recommendations of the OICC should if possible be available for consideration of the Committee at its next session.

50. The Committee had before it an addendum containing additional figures on the analysis of heavy metals in Cocoa and Cocoa Products in which, in the case of cocoa butter, there were some figures which exceeded for copper and lead the maximum levels already agreed by the Committee.

51. Although the Committee agreed that relatively few samples had been examined as reported in the document submitted by the delegation of the Netherlands to the Tenth Session of the Codex Alimentarius Commission (ALINORM 74/40 Addendum 4), there was insufficient justification to raise the already agreed limits; several countries agreed with this view.

52. The delegation of the USA, supported by the delegations of Brazil, France, Ghana, Netherlands, Nigeria, Senegal and UK objected in principle to adopting the figures for maximum levels of contaminants appearing in Section 5 of, the Draft Standard for Cocoa Butters, in view of the results of analysis reported by the Netherlands which indicated that six out of eight lots of cocoa butter tested showed copper greatly in excess of the 0.4 mg/kg proposed, and four of the eight exceeded the 0.5 mg/kg proposed for lead. The US delegation expressed the view that it was inappropriate to adopt limits for natural contaminants which clearly could not be met by substantial quantities of the products now moving in international trade. The delegation of the Federal Republic of Germany stated that it preferred the present figures concerning the maximum allowable lead content of cocoa butter, but wished to consult the FRG health authorities on whether a higher figure would be acceptable.

Status of the Standard

53. The Committee agreed to advance the Standard to Step 8 of the Procedure for submission to the Commission at its Eleventh Session. The revised Draft Standard is contained in Appendix II to this Report.

CONSIDERATION OF DRAFT STANDARD FOR COCOA POWDERS (COCOAS) AND COCOA-SUGAR MIXTURES AT STEP 7

54. The Committee considered the above Draft Standard at Step 7 of the Procedure. The document had been revised by the delegations of the Netherlands, Switzerland and the UK since the last session of the Committee (see ALINORM

74/10, para 67) and had been distributed as Appendix V to ALINORM 74/10 under CL 1974/43. Due to the late distribution of the paper, with the exception of comments from the United States, (CX/CPC 74/4) no written observations had been received from Governments.

55. It was pointed out that in revising the document the title had been changed and that instead of sweetened cocoa powder (sweetened cocoa) the term "cocoa-sugar mixtures" had been introduced. Furthermore certain proposals made at the last session of the Committee had been taken into account by providing for additional cocoa-sugar mixtures with different cocoa levels. As a result of a survey of the commodities in world trade it had been decided to divide the various products into categories based on: a) cocoa solids content and b) cocoa fat content. The compositional bands chosen for cocoa solids (expressed on dry basis) were greater than 32%, 25-32%, 18-25% and less than 18%.

56. In parallel with this classification the powders were split into two groups, viz. those in which the cocoa component had more than 20% cocoa fat and those with more than 8% but less than 20% cocoa fat.

57. In view of the agreement on nomenclature reached within the EEC, terms and related compositional factors from the directive had been introduced in the document. In consequence products based on cocoa powder contained in their designation the term "chocolate", whereas products manufactured from fat-reduced cocoa powders contained in their designation the term "cocoa" (see also Annex I to Appendix III to this Report).

58. The question was raised whether it was desirable to include in the standard products containing milk solids which formed the basis of drinks dispensed from vending machines since the amounts of substances added within the machine would not be governed by the standard. The liquid product might well bear an appropriate name (e.g. Drinking Chocolate) whilst the dry mixture might not comply with the requirements for the use of that name. Moreover, compliance with the dry mix requirements would not ensure consumer protection. A dry mix correctly labelled Drinking Chocolate entering a machine could be a constituent of a liquid product, emerging from a machine, which could not be described as Drinking Chocolate. These considerations would pose extremely difficult labelling problems.

59. After a thorough discussion the Committee finally agreed to exclude, at least for the time being, the milk containing products. In order to define clearly the type of product intended to be covered by the standard the title was amended to "Cocoa Powders (Cocoas) and Dry Cocoa-Sugar Mixtures".

60. It was pointed out that the definition of sugars not only contained a list of specified sugars but also allowed for the use of suitable carbohydrate sweeteners. Some delegations considered the latter term to be too loose and proposed its deletion. The Committee agreed to amend the definition to read: "Sugars for the purpose of this standard include fructose and those sugars for which standards have been elaborated by the Codex Alimentarius Commission"*

Essential Composition and Quality Factors

61. It was considered by many delegations that a moisture content of 9% for cocoa powders entailed the risk of lipolysis, mould spoilage and the development of off-flavours. The Committee agreed to reduce the figure for the moisture content to 1%.

62. The delegation of Senegal pointed out that the degree of fermentation of the cocoa bean affected both the flavour and the digestibility of the cocoa powder and that the degree of fermentation of the bean had not been defined in the standard. The Committee agreed that this matter should be considered in the raw materials standard.

Fat-reduced Cocoa Powder or Fat-reduced Cocoa

63. After some discussion on a proposal to reduce the maximum fat content to 15% the Committee decided to maintain the figure of 10% which already appears in the proposed Draft Standard.

Cocoa Sugar Mixtures

64. There was some discussion as to whether the content of Cocoa Powder in Cocoa-Sugar Mixtures should be calculated, as stated in the standard, on dry matter or, as in the EEC directive in which compositional requirements were expressed, on the proportion of cocoa powder in the product as sold. Opinions differed as to how the cocoa content should be expressed and it was agreed that Governments had had as yet little time to comment on this and on the other aspects of the standard which had undergone considerable revision. In particular, the Committee considered that it was necessary to study fully the interaction of the compositional criteria and the naming of the various products in the standard.

Status of the Standard

65. For the reasons mentioned it was proposed that the standard be returned to Step 6. The Committee agreed to return the standard to Step 6 for a further round of Government comments.

CONSIDERATION OF PROPOSED DRAFT STANDARD FOR COCOA POWDER (COCOA) WITH ADDITIVES FOR INDUSTRIAL PURPOSES AT STEP 4

66. As had been agreed at its Tenth Session (ALINORM 74/10, para 68) the Committee considered the above proposed draft standard contained in Appendix VII to ALINORM 74/10 at Step 4 of the Codex Procedure in the light of comments received from Governments (CX/CPC 74/3, Chapter VII).

67. Several Governments had indicated in their written observations that they were not in favour of elaborating a separate standard for Cocoa Powder with additives intended for industrial use. The Committee concurred with these views and agreed to postpone further discussion sine die. Subsequent to the elaboration of the other standards under consideration the products could perhaps be considered in the light of future provisions.

NAMING OF PRODUCTS AND STANDARDS

68. The delegation of Finland pointed out that the Committee was dealing with standards for products in international trade and that in these the composition for different kinds of chocolate had been described in detail. It was therefore of the opinion that terms such as "unsweetened chocolate" and "white chocolate", the composition of which differed basically from real chocolate, were inappropriate. It further pointed out that names like "sweet" chocolate and "plain" chocolate which were used in the standards would often be difficult to translate and would not be understood in many countries.

69. The delegation of Finland also pointed out that the products to be covered by

the proposed Draft Standard for Cocoa Powder and Cocoa-sugar Mixtures were in fact simple mixtures of cocoa powder with sugar. Nevertheless in the description of the products names like "drinking chocolate" and "chocolate powder" were used. In its opinion the word "chocolate" was inappropriate in this context. It stated also that during the discussions by the Committee on coatings for edible ices a number of objections had been raised in connection with the use of the term "chocolate" even though chocolate as defined is used as an ingredient in the manufacture of these coatings.

70. With due respect for the efforts made to harmonize on an international level the quality requirements of different cocoa and chocolate products the delegation of Finland held the view that on a national level governments should be free to decide on the names to be given to the products offered for sale in their respective countries.

71. In reply the Chairman said that this was an important issue which applied across the board and which perhaps would be better discussed in the context of the Chocolate Standard. He further elaborated the aims of Codex to harmonize and facilitate international trade and in so doing there was a requirement for specific names. Each national authority had the ability to translate names or to invoke a specific derogation to change the name of a product to suit its own position.

CONSIDERATION OF DRAFT STANDARD FOR CHOCOLATE AT STEP 7

72. The Committee considered the above draft standard contained in Appendix IV of ALINORM 74/10 at Step 7 of the Codex Procedure in the light of comments received from Governments (CX/CPC 74/3, Chapter V).

73. The delegation of the United Kingdom stated that the scope of the standard excluded composite and flavoured chocolate, filled chocolate and white chocolate. In the standards being elaborated for these products and which were for the present at a lower step of the Procedure, a number of provisions were contained which were either the same as in the standard under discussion or could be incorporated. It thus held the view that some or possibly all the standards should be considered together.

74. Other delegations pointed out that when the standard was first developed all products had been included and that subsequently the Committee had decided to elaborate separate standards for the various products.

75. It was also pointed out that in the proposed Draft Standard for Composite and Flavoured Chocolate (ALINORM 74/10, Appendix VI) by the labelling provision dealing with composite chocolate, the designation of the chocolate would not be accompanied by a reference to the added substances if the total of the added substances was lower than 5% m/m. The result would be that chocolate products containing less than 5% foodstuffs other than those permitted in the chocolate standard would be prohibited. The Committee decided to return to this point at a later stage during the discussions (see paras 108 and 120 of this Report).

76. It was agreed to consider the amalgamation of standards after their contents had been discussed.

Descriptions

77. The delegation of the USA suggested that repetitious language might be avoided by making a basic description for unsweetened chocolate then describing other products as complying with the detailed provisions of Section 3 "Essential Composition and Quality Factors". It was pointed out however that unsweetened

chocolate was almost unknown to the consumer and the Committee decided to retain the present form of the Description Section.

Milk Chocolate with High Milk Content

78. The delegation of the United Kingdom proposed that a further sub-section be added to the description section to cover Milk Chocolate with High Milk Content, for which a composition was given in brackets in sub-section 3.1.4. It was pointed out that products complying with the compositional requirements had been produced in large quantities in the UK and elsewhere for nearly 100 years and that these were being exported to more than 50 countries throughout the world. In such circumstances the inclusion of this product in this standard was justified under the work priorities criteria. The proposal was supported by Ireland and a number of other delegations.

79. The delegation of Italy pointed out that a similar situation existed for "gianduja" which would be discussed when the Standard for Composite and Flavoured Chocolate was considered by the Committee.

80. The cocoa producing countries and the representative of COPAL differed from this point of view, basing their opinions on the definition of milk chocolate made at the Committee Meeting in Neuchâtel in 1971 (ALINORM 72/10, para 49), at which the Committee decided to set the minimum total cocoa solids at 25%.

81. There was prolonged discussion in which the cocoa producing countries maintained their position that the proposed provision for a cocoa solids content of 20% in milk chocolate with high milk content could not be reconciled with the previous decision of the Committee.

82. There was a suggestion that a regional as opposed to a world-wide standard should be elaborated but this was not thought possible since it was pointed out that substantial tonnages of milk chocolate with high milk content were exported on a world-wide scale.

83. The Committee noted that there was a strong polarisation of opinion but decided that because there was a large international market for an existing product provisions should be made for milk chocolate with high milk content in the description section,

84. Reservations on the Committee's decision were expressed by the delegations of Brazil, Cameroon, Ghana, Ivory Coast, Nigeria, Senegal and Togo.

Additional Definition

85. The Committee agreed that skimmed milk chocolate and skimmed milk couverture chocolate should also be defined.

Sugars

86. The Committee agreed with the suggestion by the delegation of France that the definition for the sugars section accepted for the proposed Draft Standard for Cocoa Powders (Cocoas) and Dry Cocoa-Sugar Mixtures (ALINORM 74/10, Appendix V revised -CL 1974/43) should also be included in the Standard for Chocolate (see para 60 of this Report).

Essential Composition and Quality Factors

87. 3.1 Composition

Milk Chocolate and Milk Couverture Chocolate

The delegation of France pointed out that the ratio of fat to non-fat milk solids in 3.1.3, 3.1.4 and 3.1.8 differed and suggested that the figure of 3.65% milk fat in 3.1.3 and 3.1.8 should be reduced to 3.5%. This would give a consistent ratio of 3:1 in each standard. The delegation of the USA noted that a ratio of 3:1 did not accurately reflect the composition of whole milk which would be approximately 2.3:1.

88. It was pointed out, however, that the ratio of milk fat to fat free milk solids showed considerable natural variations and the Codmittee decided to return the figure for milk fat to 3.5 in both sub-sections 3.1.3 and 3.1.8 to bring both types into line with a ratio of fat free milk solids to milk fat of 3:1.

Milk Chocolate with High Milk Content

89. The Committee decided to remove the brackets from this sub-section and noted reservations from the same delegations which had expressed their opposition when this product was discussed as reported in para 84 in the Description section.

Skimmed Milk Chocolate and Skimmed Milk Couverture Chocolate

90. The Committee agreed that the sub-section needed amendment and that it would be much clearer to lay it out in the same way as the other sub-sections. It was decided that the product should contain at least 14% m/m milk solids with a maximum of 0.5% milk fat.

Optional Ingredients

91. Some delegations thought that "milk solids" in this section needed a definition. It was agreed that this should be defined as "one or more of the components to be found in dry whole milk". It was pointed out that the total sugars provision of the standard would include lactose derived from milk solids.

92. The delegation of Czechoslovakia raised a query regarding the position in the Standard of a half bitter chocolate low in milk solids which was marketed in his country.

93. After discussion the Committee agreed that there was little information on the extent of trading in this product and that no further action should be taken at this time.

Food Additives

94. After some discussion as to whether the reference to alkalising and neutralization agents should be removed, the Committee agreed to leave 4.1 unchanged in order to avoid conflict with the requirements of the labelling section (7.2) with regard to the listing of ingredients.

Emulsifiers (4.2). Some delegations thought that the figure for lecithin of 10 g/kg of the acetone insoluble component of lecithin was too high. Reference to para 48 of ALINORM 72/10 showed that the figure had been 5 g/kg and apparently no subsequent justification for the change had been given. The delegation of the Netherlands however pointed out that the higher figure was necessary for Chocolate Vermicelli and Milk Chocolate Vermicelli (sub-sections 2.1.8 and 2.1.9). The Committee agreed that the Secretariat should revise the provision to take into

account the consensus that 5 g/kg should be the general limit and to allow 10 g/kg for the products in 2.1.8 and 2.1.9.

96. With regard to the section on emulsifiers in general several delegations wished to reaffirm their reservations on the use of emulsifiers other than lecithin (see ALINORM 74/10, para 48). The delegation of Senegal wished to be associated with those of Austria, Belgium, the Federal Republic of Germany, France and the Netherlands who had already made their views known. The delegation of Switzerland also wished to reaffirm its reservation on the use of sorbitan esters.

97. It was pointed out that the listed emulsifiers had, with one exception, been endorsed by the Codex Committee on Food Additives and the Committee agreed that the list should remain unchanged.

Flavouring Agents

98. The Committee noted the reservations of Ireland and the United Kingdom that in their view there was an unnecessary distinction between natural and synthetic flavouring agents, which if toxicologically satisfactory and approved by the Codex Alimentarius Commission should be permitted by the Standard.

Contaminants

99. The Committee noted the reservations in the comments made by the delegations of the Federal Republic of Germany and the Netherlands on the limits for lead in cocoa products and chocolate (CX/CPC 74/3). The Committee agreed to remove the brackets from all limits for metallic contaminants in this section.

100. The delegations of Ireland and the United Kingdom pointed out that in their written comments they had requested that the levels for arsenic and lead be respectively 1 mg/kg and 2 mg/kg. In addition, the delegation of the UK pointed out that they had requested that the limit for copper should be 30 mg/kg.

Hygiene

101. The Committee agreed that the necessary changes should be made to meet the recommendations of the Hygiene Committee (see para 22 of this Report).

Labelling

Designation of the Product

102. The delegation of the United Kingdom suggested that in line with the agreed additions to sections 2 and 3 concerning the inclusion of Milk Chocolate with High Milk Content in the Standard, the section 7.1.6 should now read "Milk Chocolate with High Milk Content: products described under section (new) 2.1.7 and complying with section (new) 3.1.7 of the Standard shall be designated as Milk Chocolate. The product shall also bear percentage declaration of minimum cocoa solids and minimum milk solids in close proximity to the name".

103. In the discussion that followed some delegations thought that the name should be "Milk Chocolate with High Milk Content" and that no declaration was necessary. Others were of the opinion that the name should show that this was rather a milk chocolate with reduced cocoa solids content.

104. The Committee agreed after some discussion that the name in the other official languages of the Codex Alimentarius should be without prejudice to the description in other languages. The delegation of France proposed that the provisions

of section 7.1.6 should be amended to this effect.

105. The Committee also considered that such terms as "high" and "reduced" were subjective and gave less idea to the consumer than a clear declaration, close to the name, of the percentages of cocoa and milk solids. The representative of the IOCU pointed out that consumers now expected declarations of the type being discussed and the Committee agreed with the proposal in para 102 above. It was also suggested that the same declaration should be required for milk chocolate. A further suggestion was made that all products should have a declaration on the label of minimum cocoa solids and for milk chocolate products also a declaration of fat free milk solids and of milk fat.

106. Several delegations expressed the view that no declaration of the milk solids was called for as it might detract from the declaration of the cocoa contents. Other delegations held the opinion that for the benefit of the consumer, a declaration of both constituents was required since milk and cocoa solids each contributed to the character of the product. The Committee agreed to require a declaration of minimum cocoa solids together with minimum milk solids where appropriate. In consequence, the title of 7.3 would need to be amended to read "Declaration of minimum cocoa and milk solids contents" with the insertion of a suitable provision. The Committee agreed that it should read: "all chocolate products covered by the standard shall carry, in close proximity to the name, a declaration of cocoa solids, and also for milk chocolate products, a figure comprised of the quantity of fat-free milk solids and milk fat", except that countries in which different names are used to differentiate the products may allow for no declaration of either or both.

107. The Committee considered a proposal from the delegation of the UK that a new sub-section be inserted to the effect that the restrictions on the use of names would be without prejudice to the provisions to be agreed for Composite and Flavoured Chocolate. The reasons underlying the proposal were that the chocolate standard contained restrictions on the use of names which might well have undesirable repercussions on the labelling provisions of standards under elaboration. This was particularly true of the provisions relating to the addition of up to 5% of edible foodstuffs. It had been this, among other things, that had led the UK to propose the amalgamation of the standards.

108. Several delegations said that while they appreciated the point of view expressed, it would be preferable to deal with problems as they arose in the various standards. They feared that any provision on the lines suggested would be like signing a blank cheque which might well nullify the effect of the present standard. It was also pointed out that the Codex Procedure provided for amendment of Step 9 Standards and that, should conflict arise from later standards, the chocolate standard would be amended as necessary.

109. The delegation of the UK withdrew the proposal in view of the fears expressed and in order to allow the present standard to progress.

List of Ingredients

111. It was pointed out that the Food Labelling Committee considering the labelling provisions of the Standard for Cocoa Mass, Cocoa Nib, etc. had agreed to the use of class names for alkalizing and neutralizing agents.

112. There was some discussion on whether alkalizing and neutralizing agents which might be present as "carry over" should be specifically declared in particular as

the sodium content resulting from alkalization could be of interest to a specific group of consumers. Additionally, it was noted that there was a change in flavour and character of the product due to the use of alkalizing agents.

113. The question was also raised whether the use of the term "cocoa butter" as a generic term was not in contradiction to the labelling requirements contained in the Standard for Cocoa Butters, where this term was reserved exclusively for the description of press cocoa butter.

114. To cover these points the Committee agreed to delete in the provision (7.2) the reference to alkalizing and neutralizing agents and to add: "Provided that any of the cocoa butters listed in the Standard for Cocoa Butters under sub-sections 2.1.1 to 2.1.4 may be declared in the list of ingredients as "Cocoa Butter" and ingredients which have been alkalized must be declared as "alkalized X" (where "X" is the ingredient)".

Net Content

115. A proposal was discussed to reduce the weight limit below which no declaration of net content need be made. Several delegations stated that in view of the desirability of informing the consumer as fully as possible a net weight declaration of small units and in particular those sold singly, should be mandatory. It was further stated that a very large proportion of the trade in chocolate products was confined to low weight units.

116. Other delegations held the view that the size of the unit restricted the area on which labelling declarations could be made, and that not only mass produced chocolate but also products from the craft industries fell in the small unit range. To require a net weight declaration of the latter was considered to be impracticable.

117. The Committee finally decided that small units of up to 25 g of weight might be excluded from the declaration of net contents. The delegation of the Netherlands stated that this decision would probably not be acceptable by the Member States of the EEC. This was confirmed by other Members of the Community present. The delegation of Austria also reserved its position.

Lot Identification

118. In line with the decision made earlier for Cocoa Butters, the Committee agreed to include a provision for lot identification in the labelling section (see para 47 of this Report).

Status of the Standard

119. The Committee agreed to advance the Standard to Step 8 of the Procedure for submission to the Commission at its Eleventh Session. The revised Draft Standard is contained in Appendix III to this Report.

Other Agenda Items

120. The Committee agreed that the other standards on the agenda which were all at Step 3 should not be considered at the present Session but should be held for further Government comments. In particular the Committee requested Governments to pay particular attention to the issues raised by the delegation of the United Kingdom (see paras 75 and 108) on the apparent contradictions between the Chocolate Standard and the Composite and Flavoured chocolate Standard concerning the recognition of added food substances at levels below 5%.

I. SUMMARY STATUS OF WORK

(prepared by Secretariat)

Standard/Paper	Step	To be dealt with by	Document Reference	Working paper for next session
Cocoa (Cacao) Beans, Cocoa (Cacao)'Nibs, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines) for use, in the. manufacture of Cocoa and Chocolate Products	7	FAO Study Group on Cocoa and 12th CCCPC	ALINORM 74/10 Appendix II	CX/CPC 75/3
Availability and interpretation of Modern Methods of Analysis for the assessment of various types of Cocoa Butter		IOCC and 12th CCCPC		CX/CPC 75/4
Cocoa Butters	8	11th CAC	ALINORM 76/10 Appendix II	
Chocolate	8	11th CAC	ALINORM 76/10 Appendix III	
Cocoa Powders (cocoas) and Cocoa-Sugar Mixtures	6	Governments	ALINORM 74/10 Appendix V	
Cocoa Powder (Cocoa) with Additives for Industrial Purposes	Post-poned	-	ALINORM 74/10 Appendix VII	
Composite and Flavoured Chocolate	3	12th CCCPC	ALINORM 74/10 Appendix VI	
Filled Chocolate	3	12th CCCPC	ALINORM 74/10 Appendix VIII	
White Chocolate	3	12th CCCPC	ALINORM 74/10 Appendix IX	

II. MATTERS OF SPECIFIC INTEREST TO OTHER COMMITTEES

Codex Committee	Paragraphs
- Edible Ices	13 - 21
- Food Hygiene	22, 101
- Methods of Analysis and Sampling	48-52
- Food Additives	40-46, 94 - 98
- Food Labelling	47, 75, 102 - 118

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DRAFT STANDARD FOR COCOA BUTTERS

(At Step 6 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 Sections 2.1 and 3.1 of the 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, 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 compounds normally used for bleaching.

Cocoa butter is normally traded under the following categories:

2.1.1 Press Cocoa Butter *

Press Cocoa Butter is the fat which is obtained by pressure from cocoa nib or cocoa mass (cocoa liquor) obtained from cocoa beans as described in Section 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, general definition of cocoa butter.

2.1.2 Expeller Cocoa Butter *

Expeller Cocoa Butter is the fat prepared by the expeller process from cocoa beans, cocoa nib, cocoa mass, cocoa press cake, low fat cocoa press cake, singly or in combination as described in Sections 2.1, 2.2, 2.3 and 2.4 and complying with the Minimum Quality laid down in Section 3.1 of the 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 above, containing the general definition of cocoa butter. Cocoa butter prepared by the expeller process from other raw materials is not included in the present description.

2.1.3 Solvent Extracted Cocoa Butter *

Solvent Extracted Cocoa Butter is the fat obtained by extraction with permitted solvents from cocoa beans and/or from the other raw materials as described in Section 2 of Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao)

Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines). Such butter shall have been treated as indicated under (a) and (b) of Section 2.1 above, containing the general definition of cocoa butter.

* Note on" the Composition 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, shall be refined before being added to cocoa butter and may only be added to cocoa butter and only in such amount that the resulting mixture is in compliance with the analytical values for

2.1.4 Refined Cocoa Butter *

Refined Cocoa Butter is the fat obtained by any of the means described in sub-sections 2.1.1, 2.1.2 or 2.1.3 of the Standard which has been treated as indicated under (a) and (b) and either or both of treatments (c) and (d) Of Section 2.1 above, containing the general definition of cocoa butter.

* Please see footnote on previous page.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Identification and quality values **

	<u>3.1.1</u> <u>Press Cocoa</u> <u>Butter</u>	<u>3.1.2</u> <u>Expeller</u> <u>Cocoa Butter</u>	<u>3.1.3</u> <u>Solvent</u> <u>Extracted</u> <u>Cocoa Butter</u>	<u>3.1.4</u> <u>Refined</u> <u>Cocoa Butter</u>
<u>Characteristic</u>	<u>Values</u>	<u>Values</u>	<u>Values</u>	<u>Values</u>
<u>Organoleptic characteristics</u>				
Colour	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	Characteristic of the designated product and free from foreign odour and foreign taste

** This Section is subject to revision in due course when statistical data on fatty acid composition are available (see paragraph 37 of this Report), as well as data on Blue Value (behenic acid tryptamide content) and Extinction Value at 270 nm (after rinsing with NaOH).

Analytical characteristics

Refractive Index No. ⁿ _D 40°C ***	1.456-1.459	1.456-1.459	1.456-1.459	1.456-1.459
Melting behaviour (Fincke)				
(slip point)	30 - 34°C	30 - 34°C	30 - 34°C	30 - 34°C
(clear melting point)	31 - 35°C	31 - 35 C	31 - 35 C	31 - 35 C
Free fatty acids (expressed as % m/m oleic acid)	0.5 - 1.75	0.5 - 1.75	0 - 1.75	0 - 1.75
Saponification value (expressed as mg KOH/g fat) ***	188 - 198	188 - 198	188 - 198	188 - 198
Iodine value (Wijs)	33 - 42	33 - 42	33 - 42	33 - 42
Unsaponifiable matter (petroleum ether) % m/m	not more than 0.35	not more than. 0.5	not more than 0.5	not more than 0.5

*** Exceptionally the upper limit may be exceeded; however cocoa butter for the manufacture of chocolate, composite and flavoured chocolate, filled chocolate and white chocolate must comply with figures in this standard.

4. FOOD ADDITIVES

4.2 Extraction Solvents

Maximum Level in
the End Product

Hexane 62°C - 82°C)	5 mg/kg
1,1,2 -Trichloroethylene)	

5 CONTAMINANTS

Contaminant

Maximum level

Arsenic (As)	0.5 mg/kg
Copper (Cu)	0.4 mg/kg
Lead (Pb)	0.5 mg/kg
Iron (Fe)	2.0 mg/kg

6. HYGIENE (endorsed ALINORM 74/13, para 6)

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 Practice General Principles of Food Hygiene (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 represent a hazard to health.

6.4 When tested by appropriate methods of sampling and analysis, the products shall be free of pathogenic micro-organisms.

7. LABELLING

[The labelling provisions described hereunder are subject to endorsement by the Codex Committee *on Food Labelling*];

7.1 Designation of the product

7.1.1 Press Cocoa Butter: Products described under Section 2.1.1 and complying with the requirements of Section 3.1.1 of the standard shall 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 2.1.2 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 Solvent Extracted Cocoa Butter: Products described under Section 2.1.3 and complying with the requirements of Section 3.1.3 of the standard shall be designated "solvent extracted cocoa butter". Any mixture of solvent extracted cocoa butter with any other category of cocoa butter complying with this standard shall be designated . Solvent Extracted Cocoa Butter except as provided in 7.1.4. 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".

7.1.4 Refined Cocoa Butter: Products described under Section 2.1.4 and complying with the requirements of Section 3.1.4 of the standard shall be designated "refined cocoa butter". Any mixture of refined cocoa butter with any other category of cocoa butter complying with this standard shall be designated Refined 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".

7.2 Net Contents

The net contents shall be declared by weight in either the metric system ("System 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.

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.

7.5 Bulk Packs

The information required by sub-sections 7.1 to 7.4 shall either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer shall appear on the container. However the name and address of the manufacturer or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying document.

7.6 Lot Identification

Each container shall be embossed or otherwise permanently marked, in code or in clear, to identify the producing factory and the lot.

8 METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods [which have been 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 n_D 40°C	IUPAC II.B.2
8.1.2 Melting behaviour (Fincke) (i) slip point) (ii) clear melting point)	OICC 8b, 1961. To be endorsed
8.1.3 Free fatty acids (expressed as % oleic acid)	IUPAC II.D.1
8.1.4 Saponification value	IUPAC II.D.2
8.1.5 Iodine value (Wijs)	IUPAC II.D.7.3
8.1.6 Unsaponifiable matter (petroleum ether)	IUPAC II.D.5.2, revised by AOAC/OICC. New text to be endorsed (J.A.O.A.C.)
8.1.7 Arsenic	AOAC (1970) 25.011 (25.016-25.017) (diethyldithiocarbamate)
8.1.8 Copper	AOAC (1970) 25.023-8 (b)
8.1.9 Lead	AOAC (1970) 25.053 (25.047-25.048) (b)
8.1.10 Iron	B.S. Method: CAC/RM 14-1969 (b)
8.1.11 Extraction solvents	Method to be determined

8.2 Sampling

8.2.1 Preparation of sample	IUPAC II.A.1 (a)
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(a) Not applicable to melting behaviour.

(b) Temporarily endorsed. Might be replaced by Atomic Absorption Spectrophotometry (AAS) in the future. The Codex Committee on Cocoa Products and Chocolate is invited to try methods based on AAS (see ALINORM 72/23, paras 18-19 and 76, and CX/MAS 70/C/2: General Methods for the Determination of Metallic Contaminants).

DRAFT STANDARD FOR CHOCOLATE

(Advanced to Step 8 of the Procedure for the Elaboration of World-Wide Standards)

1. SCOPE

The Standard applies to various types of the homogenous product prepared from cocoa nib, cocoa mass, cocoa press cake and/or cocoa powder with additions such as sugars, cocoa butter, milk products and optional ingredients provided for in the standard according to the types of chocolate desired.

2. DESCRIPTIONS

2.1 Chocolate

The homogeneous products described hereunder and complying with the compositional requirements of sub-section 3.1 are 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 or without the addition of cocoa butters as defined in the Standard for Cocoa Butter, with or without permitted optional ingredients and for:

- | | | |
|--------|---------------------------------------|---|
| 2.1.1 | Chocolate | with the addition of sugars (3.1.1) |
| 2.1.2 | Unsweetened Chocolate | without the addition of sugars (3.1.2) |
| 2.1.3 | Couverture Chocolate | with the addition of sugars (3.1.3) and which is suitable for covering purposes |
| 2.1.4 | Sweet (Plain) Chocolate | with the addition of sugars (3.1.4) |
| 2.1.5 | Milk Chocolate | with the addition of sugars and milk solids (3.1.5) |
| 2.1.6 | Milk Couverture Chocolate | with the addition of sugars and milk solids (3.1.6) and which is suitable for covering purposes |
| 2.1.7 | Milk Chocolate with High Milk Content | with the addition of sugars and milk solids (3.1.7) |
| 2.1.8 | Skimmed Milk Chocolate | with the addition of sugars and skimmed milk solids (3.1.8) |
| 2.1.9 | Skimmed Milk Couverture Chocolate | with the addition of sugars and skimmed milk solids (3.1.9) and which is suitable for covering purposes |
| 2.1.10 | Cream Chocolate | with the addition of sugars and cream and milk solids (3.1.10) |
| 2.1.11 | Chocolate Vermicelli | with the addition of sugars (3.1.11) and which is in the form of grains |
| 2.1.12 | Chocolate Flakes | with the addition of sugars (3.1.12) and which is in the form of flakes |
| 2.1.13 | Milk Chocolate Vermicelli | with the addition of sugars and milk solids |

- 2.1.14 Milk Chocolate Flakes (3.1.13) and which is in the form of grains.
with the addition of sugars and milk solids
(3.1.14) and which is in the form of flakes
- 2.2 Sugars, for the purpose of this standard include fructose and those sugars for which standards have been elaborated by the Codex Alimentarius Commission.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 composition (calculated on dry matter in product)

Product	Constituents	Cocoa Butter	Fat-free Cocoa Solids	Total Cocoa Solids	Milk Fat	Fat-free Milk Solids *	Total Fat	Sugars
3.1.1	Chocolate	≥ 18	≥ 14	≥ 35				
3.1.2	Unsweetened Chocolate	≥ 50 - ≤ 58						
3.1.3	Couverture Chocolate	≥ 31	≥ 2.5	≥ 35				
3.1.4	Sweet (plain) Chocolate	≥ 18	≥ 12	≥ 30				
3.1.5	Milk Chocolate		≥ 2.5	≥ 25	≥ 3.5	≥ 10.5	≥ 25	≤ 55
3.1.6	Milk Couverture Chocolate		≥ 2.5	≥ 25	≥ 3.5	≥ 10.5	≥ 31	≤ 55
3.1.7	Milk Chocolate with High Milk Content		≥ 2.5	≥ 20	≥ 5	≥ 15	≥ 25	≤ 55
3.1.8	Skimmed Milk Chocolate		≥ 2.5	≥ 25	≤ 0.5	≥ 14	≥ 25	≤ 55
3.1.9	Skimmed Milk Couverture Chocolate		≥ 2.5	≥ 25	≤ 0.5	≥ 14	≥ 31	≤ 55
3.1.10	Cream Chocolate		≥ 2.5	≥ 25	≥ 7	≥ 3 - ≤ 14	≥ 25	≤ 55
3.1.11	Chocolate Vermicelli	≥ 12	≥ 14	≥ 32				
3.1.12	Chocolate Flakes							
3.1.13	Milk Chocolate Vermicelli		≥ 2.5	≥ 20	≥ 3.5	≥ 10.5	≥ 12	≤ 66
3.1.14	Milk Chocolate Flakes							

* in their natural proportions

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>
Arsenic (As)	0.5 mg/kg	Products described under 2.1 except Unsweetened Chocolate
	1 mg/kg	Unsweetened Chocolate
Copper (Cu)	15 mg/kg	Products described under 2.1 except Unsweetened Chocolate
	30 mg/kg	Unsweetened Chocolate
Lead (Pb)	1 mg/kg	Products described under 2.1 except Unsweetened Chocolate
	2 mg/kg	Unsweetened Chocolate

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 Practice- General Principles of Food Hygiene (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 represent a hazard to health.

6.4 When tested by appropriate methods of sampling and analysis, the products shall be free of pathogenic micro-organisms.

7. LABELLING

[The labelling provisions described hereunder are 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 declarations shall be made:

7.1 Designation of the Product

7.1.1 Chocolate: Products described under Section 2.1.1 and complying with the appropriate requirements of Section 3.1.1 of the standard shall be designated 'chocolate'.

7.1.2 Sweet or Plain Chocolate: Products described under Section 2.1.2 and complying with the appropriate requirements of Section 3.1.2 of the standard shall 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: Products described under Section 2.1.6 and complying with the appropriate requirements of Section 3.1.1 of the standard shall 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: Products described under Sections 2.1.4 and 2.1.7 and complying with Section 3.1.3 of the standard shall be designated 'milk chocolate' and 'milk couverture chocolate' as appropriate.

7.1.6 Milk Chocolate with High Milk Content: Products described under Section 2.1.7 and complying with Section 3.1.7 of the standard shall be designated as 'milk chocolate'. The product shall also bear percentage declaration of minimum cocoa solids and minimum milk solids in close proximity to the name.

7.1.7 Skimmed Milk Chocolate and Skimmed Milk Couverture Chocolate: Products not complying with Section 3.1.3 but complying with Section 3.1.5 of the standard shall be designated 'skimmed milk chocolate' or 'skimmed milk couverture chocolate' as appropriate.

7.1.8 Cream Chocolate: Products described under Section 2.1.5 and complying with Section 3.1.6 of the standard shall be designated 'cream chocolate'.

7.1.9 Chocolate Vermicelli and Chocolate Flakes: Products described under Section 2.1.8 and complying with Section 3.1.7 of the standard shall be designated 'chocolate vermicelli' or 'chocolate flakes' as appropriate.

7.1.10 Milk Chocolate Vermicelli and Milk Chocolate Flakes: Products described under Section 2.1.9 and complying with Section 3.1.8 of the standard shall be designated 'milk chocolate vermicelli' or 'milk chocolate flakes' as appropriate.

7.2 List of Ingredients

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

7.3.1 Declaration of minimum cocoa and milk solids contents

7.3.1 All chocolate products covered by the standard shall carry in close proximity to the name, a declaration of cocoa solids, and also, for milk chocolate products, a figure comprised of the quantity of fat free milk solids and milk fat except that governments of countries in which different names are used to differentiate the products may allow for a declaration of either or both.

7.3.2 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 25 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 Country of origin

7.6.1 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.

7.6.2 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.

7.7 Lot Identification

Each container shall be embossed or otherwise permanently marked, in code or in clear, to identify the producing factory and the lot.

8 METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods [which have been endorsed by the Codex Committee *on* Methods of Analysis and Sampling unless otherwise indicated]:

8.1 Analysis

	<u>Criterion</u>	<u>Method</u>	<u>Food</u>
8.1.1	Cocoa shell	AOAC-OICC study under way based on the count of stone cells AOAC (1970) 13.023-13.027 and Spiral vessels <u>Method not yet proposed.</u>	All products described under Section 2.1
8.1.2	Total ash	AOAC-OICC study completed, but not yet published. <u>To be endorsed.</u>	All products described under Section 2.1
8.1.3	Ash insoluble in hydrochloric acid	AOAC-OICC study under way <u>Method not yet proposed.</u>	All products described under Section 2.1
8.1.4	Percentage of cocoa butter	Through a) Total fat. OICC-AOAC method AOAC (1970) 13.035-13.036 -OICC 8a/1972 (common text) <u>AND</u> b) Total sterols OICC 14/1970 c) GLC analysis of sterols OICC 15/1973 (in press) Methods b) and c) <u>will be submitted to</u>	Products described under sub-sections 2.1.1, 2.1.2, 2.1.3, 2.1.6 and 2.1.8 " " "

		<u>endorsement</u> When values of collaborative testing are available	
8.1.5	Moisture content (loss on drying)	a) AOAC method (1970) 13.001-13.002 <u>OR</u> b) OICC 3E (1952)	Products described under Section 2.1
8.1.6	Fat-free cocoa solids (or dry, fat-free cocoa mass)	a) AOAC method (1970) 13.033 b) OICC study under way <u>Method not yet proposed</u>	Sweet (plain) Chocolate containing Cocoa, Sugar and Fat only All products described under Section 2.1, except Sweet (plain) Chocolate containing Cocoa, Sugar and Fat only.
8.1.7	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. <u>Method not yet proposed</u>	All products described under Section 2.1
8.1.8	Milk Fat	Semi-micro indices OICC 8i/1962 and Mole percent butyric acid AOAC (1970) 28.034-28.039 are provisionally recommended. OICC study under way. <u>Method not yet proposed</u>	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9
8.1.9	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 recommended. <u>Method not yet proposed</u>	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.
8.1.10	Total fat	OICC-AOAC method: - AOAC (1970) 13.035-13.036 - OICC 8a/1972 (common text)	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9
8.1.11	Sugars	OICC 7a/ to 7e/1960 provisionally recommended. A collaborative test is	Products described under 2.1.4, 2.1.5, 2.1.7 and 2.1.9

envisaged
(AOAC/OICC/AIFC)(a)
based on GLC/TMS and/or
enzymatic methods.

Methods not yet proposed

8.1.12	Arsenic	AOAC (1970) 25.011) (25.016-25.017)) (diethyldithio-carbamate))	
8.1.13	Copper	AOAC (1970) 25.023-) 25.028(b))	All products described under Section 2.1
8.1.14	Lead	AOAC (1970) 25.053) (25.047-25.048) (b))	

(a) Association internationale des fabricants des confiseries.

(b) Temporarily endorsed. Might be replaced by Atomic Absorption Spectrophotometry (AAS) in the future. The Codex Committee on Cocoa Products and Chocolate is invited to try methods based on AAS (see ALINORM 72/23, paras 18-19 and 76, and CX/MAS 70/C/2: General Methods for the Determination of Metallic Contaminants).