## CODEX ALIMENTARIUS COMMISSION





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**REP 11/FO** 

#### JOINT FAO/WHO FOOD STANDARDS PROGRAMME

## CODEX ALIMENTARIUS COMMISSION Thirty fourth Session Geneva, Switzerland, 4-9 July 2011

## REPORT OF THE TWENTY SECOND SESSION OF THE CODEX COMMITTEE ON FATS AND OILS

Penang, Malaysia 21 - 25 February 2011

Note: This report includes Circular Letter CL 2011/2-FO

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CX 5/15.2 CL 2011/2-FO March 2011

**TO:** Codex Contact Points

**Interested International Organizations** 

FROM: Secretariat, Codex Alimentarius Commission, Joint FAO/WHO Food Standards

Programme

SUBJECT: Distribution of the Report of the 22<sup>nd</sup> Session of the Codex Committee on Fats and

Oils (REP11/FO)

#### A. MATTERS FOR ADOPTION BY THE 34th SESSION OF THE COMMISSION:

#### Draft Guidelines Step 8 and Steps 5/8 of the Procedure

- 1. Draft Amendment to the Standard for Named Vegetable Oils: Inclusion of Palm Kernel Olein and Palm Kernel Stearin (para. 30, Appendix II).
- 2. Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft Criteria to Assess the Acceptability of Substances for Inclusion in a List of Acceptable Previous Cargoes (para. 40, Appendix III).
- 3. Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft List of Acceptable Previous Cargoes (para. 51, Appendix IV)
- 4. Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Proposed Draft List of Acceptable Previous Cargoes (para. 47, Appendix V)

Governments and interested international organizations wishing to comments on the above document, should do so in writing, in conformity with the *Procedure for the Elaboration of Codex Standards and Related Texts* (Procedural Manual of the Codex Alimentarius Commission), to the above address, before **15 May 2011**.

#### B. REQUEST FOR COMMENTS AND INFORMATION

#### Reference to acceptance voluntary application in Codex Standards

The Committee agreed to circulate for further comments the following alternative statements for inclusion in all standards for fats and oils:

These quality and composition factors are supplementary to the essential, composition, and quality factors of the standard. A product that does not meet these supplementary factors may still be considered to conform to the standard.

OR

These quality and composition factors are supplementary information to the essential, composition and quality factors of the standard. A product which meets the essential quality and composition factors but does not meet these supplementary factors is deemed to conform to the standard

The Committee further agreed that the Circular Letter would ask for comments on the integration of provisions currently in Table 3 (desmethylsterols) and Table 4 (tocopherols and tocotrienols) of the Appendix in the Standard for Named Vegetable Oils into the main body of the standard for further consideration at the next session (paras 13 - 14).

Governments and interested international organizations wishing to comments on the above matter, should do so in writing, in conformity with the *Procedure for the Elaboration of Codex Standards and Related Texts* (Procedural Manual of the Codex Alimentarius Commission), to the above address, before <u>15</u> <u>December 2011</u>.

#### SUMMARY AND CONCLUSIONS

The summary and conclusions of the 22<sup>nd</sup> Session of the Codex Committee on Fats and Oils are as follows:

#### Matters for adoption by the 34<sup>th</sup> Session of the Commission:

The Committee:

- Advanced to Step 8 the Draft Amendment to the Standard for Named Vegetable Oils: Inclusion of Palm Kernel Olein and Palm Kernel Stearin (para. 30, Appendix II), Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft Criteria to Assess the Acceptability of Substances for Inclusion in a List of Acceptable Previous Cargoes (para. 40, Appendix III) and Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft List of Acceptable Previous Cargoes (para. 51, Appendix IV) and to Step 5/8 the Proposed Draft List of Acceptable Previous Cargoes (para. 47, Appendix V)
- agreed to propose new work on the Development of a Codex Standard for Fish Oils (para. 66, Appendix VI) and Proposed Draft Amendment to the Standard for Named Vegetable Oils; Rice Bran Oil (para. 81, Appendix VII)
- agreed to discontinue work on Proposed Draft Amendment to the Standard for Olive Oils and Olive Pomace Oils: Linolenic Acid Level (para. 59)

#### **Matters referred to other Codex Committees**

The Committee agreed

- To ask the Committee on Contaminants in Foods whether halogenated solvents should be considered as contaminants for inclusion in the GSCTFF (para. 17)
- To ask the Committee on Contaminants in Foods to replace these entries with "fat spreads and blended spreads" (para. 18)
- To inform the Committee on Food Labelling that there was no need for general guidance in the case of fatty acid composition of fats and oils (para. 24)
- To inform the Committee on Fish and Fishery Products to inform that the Committee proposed to initiate a new work on the Standard for Fish Oils (para. 65)

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**REP 11/FO** 

#### INTRODUCTION

1. The 22<sup>nd</sup> Session of the Codex Committee on Fats and Oils (CCFO) was held in Penang, Malaysia from 21 - 25 February 2011 at the kind invitation of the Government of Malaysia. The Session was chaired by Ms Noraini Mohd, Othman, Senior Director, Food Safety and Quality Division, Ministry of Health. It was attended by 100 participants from 31 Member countries, one Member organization and 9 international organizations. The List of Participants is attached to this report as Appendix I.

2. The session was opened by the Chairperson on behalf of Tan Sri Dato' Seri Dr. Hj. Mohd. Ismail Merican, Director General of Health, Malaysia. In his opening remarks, the Director General Health, Malaysia welcomed participants to the 22<sup>nd</sup> Session of this Codex Committee. He reaffirmed the importance of Codex work and indicated the continuing commitment of Malaysia to fulfill the responsibility of the host country. He emphasized that Malaysia places great importance on establishing an effective food safety system, demonstrated by the upgrading of the Food Safety and Quality Division into a stand alone programme so as to ensure greater effectiveness in the discharge of its responsibility as the Central Competent Authority on food safety in Malaysia.

#### **Division of Competence**<sup>1</sup>

3. The Committee noted the division of competence between the European Union and its Member States, according to paragraph 5, Rule II of the Procedure of the Codex Alimentarius Commission, as presented in CRD 1.

#### ADOPTION OF THE AGENDA (Agenda Item 1)<sup>2</sup>

- 4. The Committee agreed to consider the following items under Agenda Item 9 "Other business and future work":
  - Proposal to revise the limit for campesterol in the Codex standard for olive oils and olive pomace oils (proposed by Australia);
  - Proposal for new work on amendment to the Codex standard for named vegetable oils; to amend the levels of fatty acid composition and desmethylsterols in rice bran oil (proposed by Thailand);
  - Proposal for new work to amend the Codex standard for named vegetable oils, to include a standard for high oleic soyabean oil (proposed by the United States of America);
  - Review of the Codex Stan 210 Standard for Vegetable oils, for the addition to palm oil high oleic OxG (proposed by Colombia);
  - Proposal to revise Codex Standard for Edible Fats and Oils Not Covered by Individual Standards on cold pressed oils (proposed by Iran)
- 5. The Committee was informed that Syria had proposed to postpone Agenda Item 6 "proposal to amend the standard for olive oils and olive pomace oils: content of delta-7-stigmastenol" to the next Session as the working document was not ready.
- 6. With these modifications, the Committee adopted the provisional agenda as the agenda for this session. The Committee agreed to establish an in-session working group, to be co-chaired by the United States of America and Switzerland, and working in English only, to discuss Items 4b and 4c. The Terms of Reference were to discuss on:
  - The Proposed Draft List of Acceptable Previous Cargoes at Step 4;
  - The Draft List of Acceptable Previous Cargoes at Step 7; and

CRD 1 (Division of competence between the European Union and its Member States according to Rule of Procedure II, paragraph 5 of the Codex Alimentarius Commission)

<sup>&</sup>lt;sup>2</sup> CX/FO 11/22/1; CX/FO 11/22/11 (proposal of Australia); CX/FO 11/22/12 (proposal of Thailand); CX/FO 11/22/13 (proposal of the United States of America); CX/FO 11/22/14 (proposal of Colombia); CRD 4 (proposal of Thailand), CRD 9 (proposal of Iran)

• The mechanisms and procedure to assess the acceptability of substances as previous cargoes including the evaluation of substances without ADI, a *modus operandi* to address this issue in a timely manner and the process for inclusion of new substances based on proposals form Members arising from new scientific information and data.

7. The Committee also agreed to establish an in-session working group to discuss Agenda Item 5. The Working Group, to be chaired by Canada and working in English, French, Spanish and Russian was mandated to consider the level of linolenic acid in virgin olive oil.

## MATTERS REFERRED BY THE CODEX ALIMENTARIUS COMMISSION AND OTHER COMMITTEES (Agenda Item 2)<sup>3</sup>

8. The Committee noted that several matters were for information or would be discussed under the relevant agenda items, and discussed the questions referred by the 32<sup>nd</sup> Session of the Commission and the Committee on Food Labelling.

#### Reference to acceptance / voluntary application in Codex Standards

- 9. The Committee recalled that the 62<sup>nd</sup> Session of the Executive Committee had not reached consensus on the deletion of the statement referring to the voluntary application included in several Codex standards but recommended that it should be considered on a case by case basis by the relevant subsidiary body, and that the 32<sup>nd</sup> Session of the Commission had agreed to refer this matter to the relevant active committees i.e. Committee on Fats and Oils and Committee on Milk and Milk Products.
- 10. Several delegations expressed the view that the provisions in the appendices to the standards for fats and oils provided important parameters to determine the authenticity of the product and that these provisions should be retained.
- 11. As regards the statement on voluntary application in the current Appendices, some delegations considered that the statement was not necessary and could be deleted as it did not affect the status of the standard, as all Codex standards were voluntary and according to the definition of "standards" under the TBT Agreement. A number of other delegations indicated that the provisions in the appendix were not intended to be part of the standard and questioned their inclusion into the standard without a full discussion of the relevant provisions. Accordingly, the statement should be retained to reflect that they provided additional information, and to avoid confusion as to their status.
- 12. Some delegations proposed to consider the incorporation of the provisions currently in the appendix into the main body of the standards and to take the opportunity of reviewing these provisions and update them if necessary. Other delegations considered that priority should be given to the revision of the statement and pointed out that it was premature to initiate a revision of all current standards and their appendices.
- 13. After extensive discussion, the Committee agreed to retain the current appendices in the standards for fats and oils. There is general agreement to amend the statement on voluntary application in the appendices. The Committee further agreed that a Circular Letter be issued to invite comments on the following alternative proposed statements to replace the current statement on voluntary application in the annexes of all standards for fats and oils:

These quality and composition factors are supplementary to the essential composition, and quality factors of the standard. A product that does not meet these supplementary factors may still be considered to conform to the standard.

OI

These quality and composition factors are supplementary information to the essential composition and quality factors of the standard. A product which meets the essential quality and composition factors but does not meet these supplementary factors is deemed to conform to the standard

14. The Committee further agreed that the Circular Letter would ask for comments on the provisions currently in Table 3 (desmethylsterols) and Table 4 (tocopherols and tocotrienols) of the Appendix in the Standard for Named Vegetable Oils and the possibility to include into the main body of the standard for further consideration at the next session.

<sup>&</sup>lt;sup>3</sup> CX/FO 11/22/2, CRD 8 (comments of Malaysia), CRD 14 (comments of Kenya)

#### **Section on Contaminants**

15. The Committee recalled the decision taken at its last session to amend the section on contaminants in the Standard for Named Vegetable Oils, and noted that the maximum levels for lead and arsenic in fats and oils were included in the *General Standard for Contaminants and Toxins in Food and Feed* (GSCTFF). The Committee therefore agreed to revise the section on contaminants in all other standards for fats and oils to include the standard text in the Format of Commodity Standards in the Procedural Manual, with two paragraphs referring respectively to the GSCTFF and to MRLs for pesticide residues.

- 16. The Committee discussed the placement of the provision on halogenated solvents in the Standard for Olive Oils and Olive Pomace Oils. The Committee noted a proposal to ask the Committee on Contaminants in Foods to consider exposure to halogenated solvents and a comment that such solvents were processing aids rather than contaminants.
- 17. The Committee agreed to retain the provisions for halogenated solvents in the Standard. The Committee also agreed to ask the Committee on Contaminants in Foods whether halogenated solvents should be considered as contaminants for inclusion in the GSCTFF.
- 18. As it was noted that the GSCTFF sections on lead and arsenic still referred to margarine and minarine, the Committee agreed to ask the Committee on Contaminants in Foods to replace these entries with "fat spreads and blended spreads".

#### **Committee on Food Labelling**

- 19. The Committee recalled that the Committee on Food Labelling recognised that there was a diversity of views on whether or not it should provide horizontal guidance on the use of modified standardised common names for the purpose of nutrition claims. The Committee agreed that Codex Commodity Committees should be invited to provide advice, in particular concerning the relevance and implications to their work of horizontal guidance or related texts from the CCFL on modified standardised common names for the purpose of nutrition claims.
- 20. The Chair drew the attention of the Committee that the 21<sup>st</sup> Session of CCFO had deliberated on a Discussion Paper on Composition and Naming of Fatty Acid Modified Oils and the Committee had agreed to discontinue consideration of a system for naming vegetable oils that have a modified fatty acid in view of lack of support to pursue this work and the concerns expressed.
- 21. The Chair proposed that this Committee maintains the tradition that had been adopted in providing for naming of fatty acid modified oils on a case-by-case basis. This approach was necessary and this is a highly complex matter and the modification of one fatty acid will alter the composition of other fatty acids in fats and oils. Hence, the modification of a fatty acid must be considered in totality with respect to the individual fat or oil.
- 22. Several delegations, reaffirmed the decision of the 21<sup>st</sup> Session of CCFO on naming vegetable oils with a modified fatty acid composition, and supported the Chair's view that the names used for vegetable oils should be considered on a case-by-case basis.
- 23. Some delegations indicated that the Committee on Food Labelling should be encouraged to provide horizontal guidance on modified standardized common names for the purpose of nutrition claims. Other delegations pointed out that the *Guidelines for Use of Nutrition and Health Claims* provided adequate guidance on nutrition claims and that there was no need for additional recommendations in this respect.
- 24. The Committee agreed that it had no need for horizontal guidance or related texts on modified standardised common names for the purpose of nutrition claims and that the CCFO should continue to consider the names of fatty acid modified vegetable oils on a case-by-case basis. The Committee agreed to inform the Committee on Food Labelling of the above decision.

## DRAFT AMENDMENT TO THE STANDARD FOR NAMED VEGETABLE OILS: INCLUSION OF PALM KERNEL OLEIN AND PALM KERNEL STEARIN AT STEP 7 (Agenda Item 3)<sup>4</sup>

25. The Committee recalled that the Proposed Draft Amendment had been adopted at Step 5 and advanced to Step 6 by the 32<sup>nd</sup> Session of the Commission, as proposed by the 21<sup>st</sup> Session of the CCFO.

26. The Committee considered the Draft Amendment and agreed with the following amendments.

#### **Fatty acid composition**

- 27. Following the request of the last session, the Committee considered the fatty acid composition data proposed by Indonesia. In addition, the Committee also considered fatty acids data compostion proposed by the United States. The Committee agreed on revised ranges of fatty acid composition in Table 1.
- 28. The Committee agreed to change the term in the Appendix II table 3 from delta-7-stigmasterol to delta-7-stigmasterol.

#### **Maximum Level of Iron**

29. With regard to the maximum level of iron, the Committee recalled that the level of 7 mg/kg applied only to palm kernel stearin and agreed to amend "palm kernel stearin" to "crude palm kernel stearin" and add a new line "Crude palm kernel olein 5.0 mg/kg" for clarification.

## Status of the Draft Amendment to the Standard for Named Vegetable Oils: Palm Kernel Olein and Palm Kernel Stearin (N09-2007)

30. The Committee agreed to forward the Draft Amendment to the Standard for Named Vegetable Oils: Palm Kernel Olein and Palm Kernel Stearin to the 34<sup>th</sup> Session of the Codex Alimentarius Commission for adoption at Step 8 (see Appendix II).

## CODE OF PRACTICE FOR THE STORAGE AND TRANSPORT OF EDIBLE FATS AND OILS IN BULK (Agenda Item 4)

## DRAFT CRITERIA TO ASSESS THE ACCEPTABILITY OF SUBSTANCES FOR INCLUSION IN A LIST OF ACCEPTABLE PREVIOUS CARGOES AT STEP 7 (Agenda Item 4a)<sup>5</sup>

- 31. The Committee recalled that the Proposed Draft Criteria as a Proposed Draft Amendment to Section 2.1.3 on Contaminants of the Code of Practice for the Storage and Transport of Fats and Oils in Bulk, had been adopted at Step 5 and advanced to Step 6 by the 32<sup>nd</sup> Session of the Commission, as proposed by the 21<sup>st</sup> Session of the CCFO.
- 32. The Chair reminded the Committee that the text in Section 2.1.3 of the Code of Practice preceding the paragraph on criteria has already been adopted by the Commission.
- 33. The Committee considered the Draft criteria and made specific comments as follows:

#### **Criterion 2**

34. One observer mentioned that if oils and fats would be refined after transportation, substances with an ADI or TDI of 0.01 mg/kg bw/day would be acceptable. One delegation said that it would be necessary to consider the scientific data taking into account the framework of risk analysis. The Committee recalled that the refining process had already been considered in the FAO/WHO Technical Meeting to set the acceptable ADI or TDI of 0.1 mg/kg bw/day. After some discussion, the Committee agreed to retain the criterion as is currently drafted.

<sup>&</sup>lt;sup>4</sup> CX/FO 11/22/3 (comments of Brazil, Colombia, the United States of America); CX/FO 11/22/3 Add.1 (comments of Indonesia); CRD 2 (comments of Mali); CRD 6 (comments of the Republic of Korea)

<sup>&</sup>lt;sup>5</sup> CX/FO 11/22/4 (comments of Brazil, Colombia, European Union, Jordan, Philippines, the United States of America, FEDIOL, FOSFA); CRD 2 (comments of Mali); CRD 12 (comments of Turkey); CRD 14 (Comments of Kenya)

#### **Criterion 3**

35. One delegation proposed to amend the text to clarify the allergen "will be removed". Several delegations proposed to delete "unless the identified food allergen can be adequately removed by subsequent processing of the fat or oil for its intended use" as it was not clear what process would be used and it would be impossible to know that the allergen was adequately removed.

36. After some discussion, the Committee recalled that the criteria were of a general nature and that the possibility of removing the allergens should be considered on a case-by-case basis and therefore agreed to retain the current text of Criterion 3.

#### Other Criteria Proposed at this Session

- 37. Several delegations supported proposals on a new criterion on the availability of methods of analysis to detect the substances in the edible fat or oil. One Observer mentioned that methods of analysis to detect most substances concerned were available; however, this was not relevant as the acceptability of the cargo was established on the basis of toxicological considerations specified under Criterion 2.
- 38. Several delegations were of the opinion that all important points to assess the acceptability of cargoes had already been covered by the four criteria and that the detection of contaminants was a different issue. After some discussion, the Committee decided not to include additional criterion on methods of analysis.

#### **Other Comments**

39. The Delegation of the United States proposed to delete the reference to the list of Acceptable Cargoes in the paragraphs preceding the criteria because the list had not been adopted by the Commission. The United States noted that the paragraph preceding the criteria had been circulated for comments and should be open for discussion. The Committee noted this text was not for discussion and therefore agreed to retain the current text..

## Status of the Draft Criteria to Assess the Acceptability of Substances for Inclusion in a List of Acceptable Previous Cargoes

40. The Committee agreed to advance the Draft Amendment to the Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Criteria to assess the acceptability of substances for inclusion in a list of acceptable previous cargoes to Step 8 for adoption by the 34<sup>th</sup> Session of the Commission (see Appendix III) for inclusion at the end of Section 2.1.3 Contamination.

#### DRAFT LIST OF ACCEPTABLE PREVIOUS CARGOES (Agenda Item 4b)<sup>6</sup>

#### PROPOSED DRAFT LIST OF ACCEPTABLE PREVIOUS CARGOES (Agenda Item 4c)<sup>7</sup>

- 41. The Committee recalled that its last session had agreed to return the Proposed Draft List of Acceptable Previous Cargoes to Step 3 for comments and to retain the Draft List of Acceptable Previous Cargoes at Step 7 pending further progress on the establishment of mechanisms and procedures that could be used to apply the criteria.
- 42. The Delegations of Switzerland and the United States presented the report of the in-session working group which they had co-chaired, as agreed under Agenda Item 1. The report appears in CRD 17. The Committee noted that the working group had not been able to reach a conclusion on the issues put forward for consideration in view of diverging opinions and noted the rationale for the positions of participants expressed in the discussion. The Committee agreed to consider the agenda items in the following order: Proposed Draft List of Acceptable Previous Cargoes, Draft List of Acceptable Previous Cargoes, and mechanisms and procedures to assess the acceptability of substances as previous cargoes.

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<sup>&</sup>lt;sup>6</sup> CX/FO 11/22/5

<sup>&</sup>lt;sup>7</sup> CL CX/FO 11/22/6, CX/FO 11/22/6 (comments of European Union, Malaysia, Philippines, FOSFA), CRD 12 (comments of Turkey), CRD 14 (comments of Kenya), CRD 17 (report of the in-session working group)

#### **Proposed Draft List of Acceptable Previous Cargoes**

43. The Delegation of the United States recalled the view of the 62<sup>nd</sup> Session of the Executive Committee that the development of lists could delay the Codex process and expressed its objection to the development of a list of acceptable cargoes for the following reasons: it was not possible to maintain and update such a list regularly as the resources required for risk assessment by FAO/WHO and consideration by the Committee were not sufficient, especially as the CCFO met on a biennial basis, and therefore the list would not serve the purpose of protecting consumers' health; the criteria finalized at the current session and the list of banned cargoes provided adequate guidance to governments; and countries could also refer to existing lists, especially the FOSFA and NIOP lists. The Delegation also expressed concern as regards the safety of some substances on the list as they had not been evaluated by JECFA or no ADI had been allocated. This position was supported by several delegations including Canada.

- 44. The Delegation of Malaysia supported the advancement of the Proposed Draft List of Acceptable Previous cargoes to Steps 5/8 for adoption by the Commission for the following reasons: this list was especially necessary for developing countries who could not carry out the required risk assessment or have the technical competence and resources for such evaluation at the national level and relied on Codex for guidance; the substances on the list were currently used as acceptable previous cargoes in fats and oils trade and recognized as safe; a national trade list is limited to national participation compared to a Codex list which necessitates international participation by member countries; and the absence of international harmonization could result in barriers to trade. This position was supported by many delegations and the Observer from FOSFA.
- 45. The Committee noted that the lists of Acceptable Previous cargoes should be updated when new scientific data became available.
- 46. In view of the concerns expressed by the Delegation of the European Unionand based on their written comments, the Committee agreed to delete the following substances from the Proposed Draft List: 2,3 butanediol (2,3-butylene glycol); cyclohexanol; cyclohexanone; and vegetable oil epoxidised and to retain the other substances on the list as proposed.

#### Status of the Proposed Draft List of Acceptable Previous Cargoes

47. The Committee agreed to advance the Proposed Draft List of Acceptable Previous Cargoes to Step 5/8 with the omission of Steps 6 and 7 (Appendix V). The Delegation of the United States expressed its reservation, reiterating its continuing and sustained opposition to this proposal and the Delegation of Japan expressed its reservation on this decision.

#### **Draft List of Acceptable Previous Cargoes**

- 48. The Committee noted that the positions expressed on the need for the lists when considering the Proposed Draft List of Acceptable Cargoes were similar as regards the Draft Lists. Many delegations supported the advancement the Draft List of Acceptable Previous Cargoes to Step 8 based on the reasons previously mentioned when discussing Proposed Draft List of Acceptable Previous Cargoes.
- 49. The Delegation of Canada expressed the view that some of the substances on the list raised health concerns and should be deleted, such as mineral oils for which the ADI varied according to the viscosity and soybean oil epoxidised.
- 50. The Delegation of the United States expressed concerns on the safety of some substances, noting that out of 113 substances, 53 have either not been evaluated by JECFA or no ADI has been allocated, and 36 have only been found to be safe under conditions of use as flavours, not as previous cargoes.

#### **Status of the Draft List of Acceptable Previous Cargoes**

51. The Committee agreed to advance the Draft List of Acceptable Previous Cargoes to Step 8 (Appendix IV). The Delegation of the United States expressed its reservation noting its continuing and sustained opposition and that there was enough support for not advancing it.

#### Mechanisms and Procedures to Assess the Acceptability of Substances

52. The Committee considered the mechanisms and procedures to assess the acceptability of substances as previous cargoes, which was also discussed by the in-session working group. One delegation questioned the need to discuss this question separately as it was not included as a separate item on the Agenda. The Committee recalled that comments on the mechanisms and procedures had been requested in conjunction with the consideration of the Proposed Draft List at Step 3 as a result of discussions at the last session. Several delegations pointed out that proposals for amendments or revisions to the lists could be put forward in the Committee according to the current Codex Procedure and criteria for new work and there was no need for specific procedures. The Committee noted a proposal to consider further work on the acceptability of substances in the framework of the Committee on Contaminants in Foods (CCCF), especially if requests for scientific advice were addressed to JECFA.

- 53. After some discussion, the Committee agreed that there was no need to undertake new work on the mechanisms and procedures to amend the lists as proposals for revision could be submitted in accordance with the Codex Elaboration Procedure and taking into account the Working Principles for Risk Analysis.
- 54. The Committee expressed its thanks and appreciation to the Delegation of Switzerland and the United States as the Co-Chairs and all Members of the Working Group for their excellent work in facilitating consideration of this issue in the Committee.

## PROPOSED DRAFT AMENDMENT TO THE STANDARD FOR OLIVE OILS AND OLIVE POMACE OILS: LINOLENIC ACID LEVEL (Agenda Item 5)<sup>8</sup>

- 55. The Committee recalled that its last session had agreed to return to Step 3 the Proposed Draft Amendment and that if no agreement could be reached at the current session, the Committee would recommend the discontinuation of work on the level of linolenic acid. This recommendation has been endorsed by the 62<sup>nd</sup> Session of the Executive Committee.
- 56. The delegation of Canada, speaking as the Chair of the in-session Working Group, introduced the report of the Working Group, as presented in CRD 16 Rev. The Delegation reported that there was no agreement in the in-session working group and indicated that another option was proposed by Delegation of Egypt in addition to the existing options on the footnote. The three options are as follows: 1) the level for linolenic acid could be up to 1.1% and the sample exceeding 1.0% for linolenic acid should conform to three criteria; 2) the level for linolenic acid could be up to 1.2% and the sample exceeding 1.0% for linolenic acid should conform to two criteria; and 3) the level for linolenic acid could be up to 1.1% and the sample exceeding 1.0% for linolenic acid should conform to two criteria.
- 57. Several delegations supported the first option but as a compromise could lend support to the third option which includes two criteria to verify authenticity of the oils. Some delegations supported the second option as according to their survey the value should be 1.5% but could accept, in the spirit of compromise, a level of 1.2%. Any lower value would have a negative impact on global production and trade and Codex Standard should cover olive oils produced from all over the world. Other delegations supported the third option as the option was essential to prevent fraud in trade and to ensure the authenticity of the product.
- 58. The Chair proposed an alternative approach in an effort to resolve this issue where the values of linolenic acid in virgin olive oils is deleted and replaced by a footnote to read: national limits may remain in place or levels may be determined by national authorities. However, there was no support for this proposal.
- 59. After some discussion, the Committee recognized that there was no agreement on the level of linolenic acid in olive oils and olive pomace oils and hence agreed to recommend the discontinuation of this work.
- 60. The Committee noted that if new data become available in the future, this matter on the level of linolenic acid in olive oils and olive pomace oils may be reconsidered by this Committee. The Chair reminded the Committee that such data should reflect global variability that take into account geographical, climate and seasonal variation (over several seasons, varietal differences) and data must be statistically sound.

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<sup>&</sup>lt;sup>8</sup> CX/FO 11/22/7 (Comments of Argentina, Australia, Brazil, IOC), CRD 5 (Comments of Mexico), CRD 12 (Comments of Turkey), CRD 14 (Comments of Kenya), CRD 16 Rev (Report of the in-session working group)

61. The Committee expressed its thanks and appreciation to the Delegation of Canada as Chairperson and all Members of the Working Group for their excellent work in facilitating consideration of this issue in the Committee.

## PROPOSAL TO AMEND THE STANDARD FOR OLIVE OILS AND OLIVE POMACE OILS: CONTENT OF DELTA-7-STIGMASTENOL (Agenda Item 6)

See Agenda Item 1

#### PROPOSAL FOR NEW WORK ON A STANDARD FOR FISH OILS (Agenda Item 7) $^9$

- 62. The Committee recalled that its last session had agreed to consider this proposal further based on a revised project document. The Delegation of Switzerland introduced the revised project document as in CRD15. The delegation explained that the scope of the proposed Standard would cover oils derived from fish including shellfish which are for direct human consumption or further processing and that there would be distinct categories such as "named" fish oils from specific species with defined compositional criteria and "unnamed" fish oils with basic compositional criteria.
- 63. The Chair read the written comments from the following countries which were not able to attend the current Session: Mali, Mauritius and Kenya.
- 64. Several delegations supported the proposed new work. One delegation mentioned that the General Principles of Food Hygiene should be referred in the Standard to ensure safety of the oils intended for human consumption.
- 65. One delegation asked whether the work should be carried out by the Committee or the Committee on Fish and Fishery Products (CCFFP). The Secretariat clarified that considering the mandate of the Committee, the work should be carried out by CCFO and it was possible to ask some questions, especially in relation to "named" fish oils, to CCFFP if needed. The Committee agreed to inform CCFFP about the proposal to initiate new work on fish oils. Several delegations pointed out that it was relevant to request from the FAO/WHO expert bodies a consultation for scientific advice necessary to develop an appropriate Codex standard for fish oils .The scope of such a request should include the whole production chain, parameters and methods of analysis.
- 66. The Committee agreed that there was unanimous support on this new work proposal and agreed to submit a proposal for new work to the Commission. The Committee agreed to make a minor amendment to the project document under Section 9 on Proposed Time Line to indicate this work will be undertaken according to the Uniform Procedure. The project document is in Appendix VI. To strengthen the proposal, the Committee also encouraged countries and observers to submit additional data on trade and trade impediment and other relevant data to Switzerland by April 2011.
- 67. The Committee further agreed to establish an electronic Working Group, chaired by Switzerland and working in English, to prepare a Proposed Draft Standard of Fish Oils for circulation at Step 3 and consideration by the next Session of the Committee, subject to approval as new work by the Commission.

## PROPOSAL TO AMEND THE STANDARD FOR NAMED VEGETABLE OILS: SUNFLOWER SEED OILS (Agenda Item $8)^{10}$

68. The Committee recalled that its last Session had agreed to consider the proposal to initiate new work on the revision of the ranges of oleic acid (C18:1) and linoleic acid (C18:2) for sunflower oil in Table 1 of the Standard for Named Vegetable Oils.

CX/FO 11/22/9, CRD 2(Comments of Mali), CRD 3 (Comments of Mauritius), CRD 7 (Comments of Norway), CRD 11 (Comments of ISDI), CRD 14 (Comments of Kenya), CRD 15 (Revised document of CX/FO 11/22/9)

CX/FO 11/22/10, CRD 5 (Comments of Mexico), CRD 10 (Corrigendum of CX/FO 11/22/10), CRD 12 (Comments of Turkey), CRD 14 (Comments of Kenya)

69. The Delegation of Argentina indicated that some gaps existed in the ranges of oleic acid (C18:1) and linoleic acid (C18:2) for sunflower oils in Table 1 of the Standard, with the result that some sunflower oils from traditional crops were not covered by any of the three types of sunflower oil. The Delegation also highlighted the lack of consistency in the expression of the maximum and minimum levels for refractive index and density in terms of temperature; the lack of correlation and/or continuity between the levels; and the lack of continuity or overlap for iodine values. The Delegation therefore proposed to initiate new work on the revision of the Standard for Named Vegetable Oils to address these inconsistencies.

- 70. Several delegations indicated that they could not take a position due to late arrival of the document at this Session. Several delegations supported to initiate this work and indicated that they would be able to submit relevant scientific data.
- As the document was received late and members of the Committee did not have sufficient time to have national consultation, the Committee agreed to consider this proposal by Argentina to amend the Standard for Named Vegetable Oils on modification of reference values for sunflower seed oils (Oleic and Linoleic Fatty Acids, Iodine Value and absolute density at 25 °C) at its next session. The Committee also agreed to establish an electronic working group, chaired by Argentina and working in English only, to revise the discussion paper including the preparation of a project document, taking into account the Guidelines on the Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information required by the Committee when proposing the addition of new oils to the Standard for Named Vegetable Oils, for further consideration at the next session.

#### OTHER BUSINESS AND FUTURE WORK (AGENDA Item 9)

## Proposal to Revise the Limit for Campesterol in the Codex Standard for Olive Oils and Olive Pomace Oils $^{11}$

- 72. The Delegation of Australia introduced the discussion paper and stressed the importance of maintaining the integrity and quality of olive oil, the need to update Codex standards when new scientific or other information became available, and recalled that commodity standards should reflect global variations and focus on essential characteristics. In this perspective, the Delegation indicated that many parameters in the current standard did not adequately reflect global variations in olive oil, and as a result some high quality olive oils could not be traded internationally. In order to address this problem, the Delegation proposed to revise the limit for campesterol to take into account new data on the variability of campesterol levels in virgin olive oil. This proposal was supported by some delegations.
- 73. The Delegation of the European Union expressed the view that the provisions in the Standard should take into account olive oil production at a global level and should ensure the prevention of adulteration, and for this purpose changes in parameters should be based on global studies carried out according to an agreed protocol, as was the case in IOC studies. The Delegation therefore indicated that it was premature to initiate new work on the revision of the level of campesterol. This position was supported by other delegations.
- 74. The Observer from IOC informed the Committee that a study had been initiated on campesterol levels and that, as the number of samples was not sufficient so far, all producing countries, whether they were members of IOC or not, had been invited to provide samples.
- 75. The Delegation of Australia expressed the view that all relevant data and studies on olive oil should be taken into account, and not only IOC data, and that the Committee should not wait for IOC to amend its standard to address the issue of campesterol levels at the international level, taking into account that not all Codex member countries were members of IOC.
- 76. The Committee noted the information provided by the delegations of the United States and Argentina on studies they had carried out at the national level on campesterol levels in olive oil, which could be useful in further consideration of this proposal.
- 77. The Committee agreed that there was insufficient support to initiate new work on the revision of the campesterol level in the Codex Standard for Olive Oils and Olive Pomace Oils at this stage. The Committee also agreed that the delegation of Australia, in cooperation with Argentina, the United States and any other interested countries would revise the discussion paper for consideration at the next session, taking into account additional data that would become available in the meantime.

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<sup>&</sup>lt;sup>11</sup> CX/FO 11/22/11, CRD 14 (Comments of Kenya)

78. The Chair emphasized that in order to arrive at data that is truly representative of global variability, close attention must be paid to the following conditions when collecting data for consideration by the Committee:

- geographical variation;
- climatic and seasonal variation (over several seasons);
- plant varieties; and
- data which are statistically sound

#### Proposal for New Work on Amendment to the Standard for Named Vegetable Oils; Rice Bran Oil<sup>12</sup>

- 79. The Committee recalled that the 32<sup>nd</sup> Session of the Commission had recommended that CCFO reconsider the level of other desmethylsterols in the Standard if new data became available. The Delegation of Thailand informed the Committee that its initial proposal on desmethylsterols in CX/FO 11/22/12 has been expanded to include fatty acid composition as in CRD 4. The Delegation introduced the results of their studies on desmethylsterols levels as well as composition of fatty acids in rice bran oil. The Delegation proposed new work to amend the level of desmethylsterols and composition of fatty acids in rice bran oil in the Standard for Named Vegetable Oils.
- 80. Several delegations supported this new work proposal. Some delegations pointed out that more data, taking into account sterol content, would be necessary and that they would submit some relevant data. The Delegation of Thailand indicated that they would collect sufficient additional data in order to prepare a proposed draft standard by the next Session. The Delegation of the United States noted that because of the complexity of desmethylsterols in rice bran oil special consideration should be made to ensure that the other desmethylsterols had been uniformly reported.
- 81. The Committee agreed to forward this proposal to the 34<sup>th</sup> Session of the Commission to approve as new work an amendment to the desmethylsterols levels and fatty acid composition of rice bran oil in the *Standard for Named Vegetable Oils*. The Project Document for this proposal is attached to this report as Appendix VII.

## Proposal for New Work to Amend the Codex Standard for Named Vegetable Oils: High Oleic Soyabean $\mathbf{Oil}^{13}$

- 82. The Delegation of the United States recalled that since 2005 and at the last session of the Committee, the Committee had considered its proposal for new work on three types of modified soyabean oils, which had not been supported due to lack of production and trade data. The Delegation highlighted the figures for production and trade in soyabean oils and indicated that in the next five years, high oleic soyabean oil would represent 15% of total soyabean oil production and that many countries were currently using these oils. The Delegation recalled that several amendments had been made to the Standard for Named Vegetable Oils in order to include vegetable oils with high oleic acid content and therefore new work on high oleic soyabean oils should be initiated in order to facilitate trade.
- 83. Several delegations supported new work in view of the increasing production and trade for high oleic soyabean oils. The Chair read the written comments by Mexico who was not able to attend the present session.
- 84. Other delegations pointed out that current production and trade figures were missing in the project document and that although some projections were presented, there was not enough justification to initiate new work at this stage. In reply to some questions on the varieties of soybean concerned, the Delegation of the United States clarified that some commercial varieties were already on the market.
- 85. The Chair also drew attention to the need for adequate international data on volume of production and consumption as well as pattern of trade and essential composition and quality factors.

<sup>12</sup> CX/FO 11/22/12, CRD 4 (Additional proposal of Thailand), CRD 14 (Comments of Kenya)

<sup>&</sup>lt;sup>13</sup> CX/FO 11/22/13 ,CRD 13 (supplemental information 1 from the United States) and CRD 5 (comments of Mexico)

86. After some discussion, the Committee agreed that because of insufficient production and trade data provided in the project document, there was insufficient support for new work to amend the Codex Standard for Named Vegetable Oils to include high oleic soyabean oils. The Committee also agreed to establish an electronic working group led by the United States and working in English, to prepare a revised project document, taking into account views and comments made at the present session and supported by relevant data as required by the Guidelines on the Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information required by the Committee when proposing the addition of new oils to the Standard for Named Vegetable Oils for consideration by the next session.

## Review of the CODEX STAN 210 Standard for Named Vegetable Oils for the addition of Palm Oil with High Oleic Acid $OxG^{14}$

- 87. The Delegation of Colombia highlighted the main objectives and aspects of their proposal to develop provisions for high oleic palm oil produced by the hybrid OxG (*Elaeis oleifera x Elaeis guinensis*) in the Standard for Named Vegetable Oils, as presented in the project document, noting that additional information on production figures and fatty acid composition was presented in CRD 18.
- 88. Several delegations supported new work on this product as consumer demand, production and trade in oils with high oleic acid content were increasing due to their high nutritional quality.
- 89. Some requests for clarification were put forward in the discussion, especially whether the type of palm oil proposed should be described as "high oleic acid content" or "mid oleic" as in the case of sunflower oil with similar oleic acid content, and whether it is appropriate to include the variety in the name of the oil. Several delegations indicated that due to the late receipt of the document, they were not able to take a position at the present session.
- 90. In view that the document was received late and members of the Committee did not have sufficient time to have national consultation, the Committee agreed to consider this proposal by Colombia for consideration at its next session. The Chair also reminded the Committee that international data on volume of production and consumption as well as pattern of trade should be included in the revised document.
- 91. The Committee also agreed to establish an electronic working group, chaired by Colombia and working in English, to prepare a revised discussion paper including a project document, taking into account views and comments made at the current session and based on the Guidelines on the Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information required by the Committee when proposing the addition of new oils to the Standard for Named Vegetable Oils for consideration at the next session.

#### Proposal for Cold Pressed Oils<sup>15</sup>

- 92. The Delegation of Iran introduced CRD 9 and indicated the importance of using cold pressing as the traditional and natural way to produce oils. The delegation proposed to include four types of oils, namely walnut oil, pistachio oil, hemp seed oil and hazelnut oil, into the Standard for Named Vegetable Oils.
- 93. Several delegations indicated that they could not take a position because they had received the document at the Session and they needed more time to study the proposal.
- 94. Some delegations indicated that these and other types of cold pressed oils are produced in their country and were ready to contribute to the elaboration of relevant provisions. It was also noted that the definition and characteristics of cold pressed oils should be carefully considered.
- 95. As the document was received late and Members of the Committee did not have sufficient time to carefully consider the proposal, the Committee agreed to consider this proposal by Iran at its next session.
- 96. The Committee agreed to establish an electronic working group chaired by Iran and working in English, to prepare a revised discussion paper including a project document, taking into account views and comments made at the present session and based on the Guidelines on the Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information as required by the CCFO when proposing the addition of new oils to the Standard for Named Vegetable Oils for consideration by the next session.

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<sup>&</sup>lt;sup>14</sup> CX/FO 11/22/14, CRD 5 (Comments of Mexico) and CRD 18 (supplemental information from Colombia)

<sup>&</sup>lt;sup>15</sup> CRD 9 (Proposal of Iran)

97. The Committee also agreed that this proposal would focus on the four types of oils as mentioned above and that any Member could propose to include other types of oils in the Standard as a separate proposal.

#### DATE AND PLACE OF NEXT SESSION (Agenda Item 10)

98. The Committee was informed that its 23<sup>rd</sup> Session was tentatively scheduled to be held in Malaysia from 25 February to 1 March 2013, the final arrangements being subject to confirmation by the Host Country and the Codex Secretariat.

#### **SUMMARY STATUS OF WORK**

SUBJECT MATTER	STEP	ACTION BY:	DOCUMENT REFERENCE (REP11/FO)
Draft Amendment to the Standard for Named Vegetable Oils: Inclusion of Palm Kernel Olein and Palm Kernel Stearin (N09-2007)	8	Governments 34 <sup>th</sup> CAC	para. 30 Appendix II
Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft Criteria to Assess the Acceptability of Substances for Inclusion in a List of Acceptable Previous Cargoes	8	Governments 34 <sup>th</sup> CAC	para. 40 Appendix III
Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Draft List of Acceptable Previous Cargoes	8	Governments 34 <sup>th</sup> CAC	para. 51 Appendix IV
Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk: Proposed Draft List of Acceptable Previous Cargoes	5/8	Governments 34 <sup>th</sup> CAC	para. 47 Appendix V
Standard for Fish Oils	1/2/3	65 <sup>th</sup> CCEXEC  34 <sup>th</sup> CAC  eWG led by Switzerland  23 <sup>rd</sup> CCFO	para. 66 Appendix VI
Standard for Named Vegetable Oils; Rice Bran Oil	1/2/3	65 <sup>th</sup> CCEXEC  34 <sup>th</sup> CAC  Thailand  23 <sup>rd</sup> CCFO	para. 81 Appendix VII
Standard for Olive Oils and Olive Pomace Oils: Linolenic Acid Level	-	discontinue	para. 59

#### APPENDIX I

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#### Appendix II

## DRAFT AMENDMENT TO THE STANDARD FOR NAMED VEGETABLE OILS PALM KERNEL OLEIN AND PALM KERNEL STEARIN (N09-2007)

(At Step 8 of the Procedure)

#### 2. DESCRIPTION

#### 2.1 Product definitions

- 2.1.9 **Palm kernel olein** is the liquid fraction derived from fractionation of palm kernel oil (described above).
- 2.1.10 **Palm kernel stearin** is the solid fraction derived from fractionation of palm kernel oil (described above)

#### 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.3 Slip point

Palm kernel olein between 21 to 26 °C Palm kernel stearin between 31 to 34 °C

Table 1: Fatty acid composition of vegetable oils as determined by gas liquid chromatography from authentic samples<sup>1</sup> (expressed as percentage of total fatty acids) (see Section 3.1 of the Standard)

Fatty acid	Palm kernel olein <sup>2</sup>	Palm kernel stearin <sup>2</sup>
C6:0	ND-0.7	ND-0.2
C8:0	2.9-6.3	1.3-3.0
C10:0	2.7-4.5	2.4-3.3
C12:0	39.7-47.0	52.0-59.7
C14:0	11.5-15.5	20.0-25.0
C16:0	6.2-10.6	6.7-10.0
C16:1	ND-0.1	ND
C17:0	ND	ND
C17:1	ND	ND
C18:0	1.7-3.0	1.0-3.0
C18:1	14.4-24.6	4.1-8.0
C18:2	2.4-4.3	0.5-1.5
C18:3	ND-0.3	ND-0.1
C20:0	ND-0.5	ND-0.5
C20:1	ND-0.2	ND-0.1
C20:2	ND	ND
C22:0	ND	ND
C22:1	ND	ND
C22:2	ND	ND
C24:0	ND	ND
C24:1	ND	ND

<sup>&</sup>lt;sup>1</sup> Data taken from species as listed in Section 2.

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<sup>&</sup>lt;sup>2</sup> Fractioned Product from palm kernel oil.

#### **APPENDIX**

#### OTHER QUALITY AND COMPOSITIONAL FACTORS

#### 1. Quality Characteristics

# 1.5 Iron (Fe): Crude palm kernel olein Crude palm kernel stearin 7.0 mg/kg

Table 2: Chemical and physical characteristics of crude vegetable oils (see Appendix of the Standard)

	Palm kernel olein <sup>2</sup>	Palm kernel stearin <sup>2</sup>
Relevant density (x°C/water at 20°C)	0.906-0.909 x=40°C	0.902-0.908 x=40°C
Apparent density (g/ml)	0.904-0.907	0.904-0.906
Refractive index (ND 40°C)	1.451-1.453	1.449-1.451
Saponification value (mg KOH/g oil)	231-244	244-255
<b>Iodine value</b>	20-28	4-8.5
Unsaponifiable matter (g/kg)	<15	< 15

Table 3: Levels of desmethylsterols in crude oils from authentic samples<sup>1</sup> as a percentage of total sterol (see Appendix 1 of the Standard)

	Palm kernel olein <sup>2</sup>	Palm kernel stearin <sup>2</sup>
Cholesterol	1.5-1.9	1.4-1.7
Brassicasterol	ND-0.2	ND-2.2
Campesterol	7.9-9.1	8.2-9.7
Stigmasterol	13.4-14.7	14.1-15.0
Beta-sitosterol	67.1-69.2	67.0-70.0
Delta-5-avenasterol	3.3-4.6	3.3-4.1
Delta-7-stigmastenol	ND-0.6	ND-0.3
Delta-7-avenasterol	ND-0.5	ND-0.3
Others	2.9-3.7	1.0-3.0
Total sterols (mg/kg)	816-1339	775-1086

ND – Non-detectable, defined as ≤0.05%

Table 4: Levels of tocopherols and tocotrienols in crude vegetable oils from authentic samples (mg/kg) (see Appendix 1 of the Standard)

	Palm kernel olein <sup>2</sup>	Palm kernel stearin <sup>2</sup>
Alpha-tocopherol	ND-11	ND-10
Beta-tocopherol	ND-6	ND-2
Gamma-tocopherol	ND-3	ND-1
Delta-tocopherol	ND-4	ND
Alpha-tocotrienol	ND-70	ND-73
Gamma-tocotrienol	1-10	ND-8
Delta-tocotrienol	ND-2	ND-1
Total (mg/kg)	ND-90	ND-89

ND – Non-detectable.

**Appendix III** 

### DRAFT AMENDMENT TO THE RECOMMENDED INTERNATIONAL CODE OF PRACTICE FOR THE STORAGE AND TRANSPORT OF EDIBLE FATS AND OILS IN BULK

(At Step 8 of the Procedure)

#### 2.1.3 Contamination

Undesirable contamination may be from residues of a previous material handled in the equipment, dirt, rain, sea water or through the accidental addition of a different product. In storage installations and ships, particular difficulty may be experienced ensuring cleanliness of valves and pipelines, particularly where they are common for different tanks. Contamination is avoided by good design of the systems, adequate cleaning routines and an effective inspection service, and on ships by the carriage of oils in segregated tank systems in which the previous cargoes are included in the Codex List of Acceptable Previous Cargoes at Appendix 2 of this Code.

Contamination is also avoided by the rejection of tanks which have carried as a last cargo products which are included on the Codex List of Banned Immediate Previous Cargoes at Appendix 3 of this Code.

Previous cargoes not on the Codex Lists of Acceptable or Banned cargoes are only to be used if agreed upon by competent authorities of the importing countries.

Until both lists are completed, practitioners may find the lists and data referred to in the Bibliography at Appendix 4 provide relevant guidance.

When determining whether a substance is acceptable as an immediate previous cargo, competent authorities should consider the following criteria:

1	The substance is transported/stored in an appropriately designed system; with adequate cleaning routines, including the verification of the efficacy of cleaning between cargoes, followed by effective inspection and recording procedures.
2	Residues of the substance in the subsequent cargo of fat or oil should not result in adverse human health effects. The ADI (or TDI) of the substance should be greater than or equal to 0.1 mg/kg bw/day. Substances for which there is no numerical ADI (or TDI) should be evaluated on a case by case basis.
3	The substance should not be or contain a known food allergen, unless the identified food allergen can be adequately removed by subsequent processing of the fat or oil for its intended use.
4	Most substances do not react with edible fats and oils under normal shipping and storage conditions. However, if the substance does react with edible fats and oils, any known reaction products must comply with criteria 2 and 3.

Appendix IV

### DRAFT LIST OF ACCEPTABLE PREVIOUS CARGOES (At Step 8 of the Procedure)

#### **Notes**

- (1) Where it is not possible to transport edible fats and oils in bulk in tankers reserved for foodstuffs only, the possibility of contamination incidents is reduced by carriage in tankers in which the previous cargo is included in the list below. Application of this list must be combined with: good design of the system; adequate cleaning routines; and, effective inspection procedures (see Section 2.1.3 of the Code).
- (2) Previous cargoes not on the list are only acceptable if they are agreed upon by the competent authorities of the importing country (see section 2.1.3 of the Code).
- (3) The list below is not necessary a final list but is subject to review and possible amendment to take account of scientific or technical developments. Additional substances are being considered for inclusion in the list and may be included as acceptable following an appropriate risk assessment. This should include consideration of:
  - Toxicological properties, including genotoxic and carcinogenic potential (account may be taken of the opinions of JECFA or other recognised bodies);
  - Efficacy of cleaning procedures between cargoes;
  - Dilution factor in relation to the potential amount of residue of the previous cargo and any impurity which the previous cargo might have contained, and the volume of oil or fat transported;
  - Solubility of possible contaminating residues;
  - Subsequent refining/processing of the oil or fat;
  - Availability of analytical methods for the detection of trace amounts of residues or for verifying the absence of contamination; and,
  - Reactivity of oils/fats with contaminating residues.

### List of acceptable previous cargoes

Substance (synonyms)	CAS Number
Acetic acid (ethanoic acid; vinegar acid; methane carboxylic acid)	64-19-7
Acetic anhydride (ethanoic anhydride)	108-24-7
Acetone (dimethylketone; 2-propanone)	67-64-1
Acid oils and fatty acid distillates - from animal, marine and vegetable fats and oils	
Ammonium hydroxide (ammonium hydrate; ammonia solution; aqua ammonia)	1336-21-6
Ammonium polyphosphate	68333-79-9
Animal, marine and vegetable oils and fats (including hydrogenated oils and fats) - other than cashew shell nut oil and tall oil	
Beeswax – white	8006-40-4
Beeswax – yellow	8012-89-3
Benzyl alcohol (pharmaceutical and reagent grades)	100-51-6
1,3-Butanediol (1,3-butylene glycol)	107-88-0
1,4-Butanediol (1,4-butylene glycol)	110-63-4
Butyl acetate, n-	123-86-4
Butyl acetate, sec-	105-46-4
Butyl acetate, tert-	540-88-5
Calcium chloride solution	10043-52-4
Calcium lignosulphonate liquid (lignin liquor; sulphite lye)	8061-52-7
Candelilla wax	8006-44-8
Carnauba wax (Brazil wax)	8015-86-9
Cyclohexane (hexamethylene; hexanaphthene; hexahydrobenzene)	110-82-7
Ethanol (ethyl alcohol; spirits)	64-17-5
Ethyl acetate (acetic ether; acetic ester; vinegar naphtha)	141-78-6
2-Ethylhexanol (2-ethylhexy alcohol)	104-76-7
Fatty acids	
Arachidic acid (eicosanoic acid)	506-30-9
Behenic acid (docosanoic acid)	112-85-6
Butyric acid (n-butyric acid; butanoic acid; ethyl acetic acid; propyl forinic acid)	107-92-6
Capric acid (n-decanoic acid)	334-48-5
Caproic acid (n-hexanoic acid)	142-62-1
Caprylic acid (n-octanoic acid)	124-07-2
Erucic acid (cis-13-docosenoic acid)	112-86-7
Heptoic acid (n-heptanoic acid)	111-14-8
Lauric acid (n-dodecanoic acid)	143-07-7
Lauroleic acid (dodecenoic acid)	4998-71-4
Linoleic acid (9,12-octadecadienoic acid)	60-33-3
Linolenic acid (9,12,15-octadecatrienoic acid)	463-40-1
Myristic acid (n-tetradecanoic acid)	544-63-8
Myristoleic acid (n-tetradecenoic acid)	544-64-9
Oleic acid (n-octadecenoic acid)	112-80-1
Palmitic acid (n-hexadecanoic acid)	57-10-3
Palmitoleic acid (cis-9-hexadecenoic acid)	373-49-9
Pelargonic acid (n-nonanoic acid)	112-05-0
Ricinoleic acid (cis-12-hydroxy octadec-9-enoic acid; castor oil acid)	141-22-0
Stearic acid (n-octadecanoic acid)	57-11-4

Valeric acid (n-pentanoic acid; valerianic acid)         109-52-4           Fatty alcohols         71-36-3           Butyl alcohol (1-butanol; butyric alcohol)         71-36-3           Capryl alcohol (1-hexanol; hexyl alcohol)         111-27-3           Capryl alcohol (1-hexanol; hexyl alcohol)         36653-82-4           alcohol; n-primary hexadecyl alcohol)         112-30-1           Iso decyl alcohol (1-decanol)         25339-17-7           Enanthyl alcohol (1-heptanol; heptyl alcohol)         111-70-6           Lauryl alcohol (1-heptanol; heptyl alcohol)         112-53-8           Myristyl alcohol (1-decanol; dodecyl alcohol)         112-72-1           Nonyl alcohol (1-heptanol; pelargonic alcohol; octyl carbinol)         143-08-8           Iso nonyl alcohol (isononanol)         27458-94-2           Oleyl alcohol (isononanol)         143-28-2           Stearyl alcohol (I-octadecanol)         112-92-5           Tridecyl alcohol (I-tridecanol)         27458-94-2           Stearyl alcohol (I-tridecanol)         27458-92-0           Fatty acid esters – combination of above fatty acids and fatty alcohols         2-2458-92-0           Fatty alcohol blends         20cyl palmitate           Cetyl stearate         110-63-2           Olcyl palmitate         2906-55-0           Fatty alcohol (isoptolic (C12	Substance (synonyms)	CAS Number
Butyl alcohol (1-butanol; butyric alcohol)	Valeric acid (n-pentanoic acid; valerianic acid)	109-52-4
Caproyl alcohol (1-n-extanol; hexyl alcohol)	Fatty alcohols	
Capryl alcohol (1-n-octanol; heptyl carbinol)	Butyl alcohol (1-butanol; butyric alcohol)	71-36-3
Cetyl alcohol (alcohol C-16; 1-hexadecanol; cetylic alcohol; palmityl alcohol; n-primary hexadecyl alcohol)   112-30-1   150 decyl alcohol (1-decanol)   25339-17-7   25339-	Caproyl alcohol (1-hexanol; hexyl alcohol)	111-27-3
alcohol; n-primary hexadecyl alcohol   Decyl alcohol (1-decanol)   112-30-1   Iso decyl alcohol (1-decanol)   25339-17-7   Enanthyl alcohol (1-heptanol; heptyl alcohol)   111-70-6   Lauryl alcohol (1-heptanol; heptyl alcohol)   112-53-8   Myristyl alcohol (1-heptanol; heptyl alcohol)   112-72-1   Nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol)   143-08-8   Iso nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol)   143-28-9   Oleyl alcohol (octadecenol)   143-28-9   Stearyl alcohol (1-otadecanol)   112-92-5   Tridecyl alcohol (1-otadecanol)   27458-92-0   Tridecyl alcohol (1-tridecanol)   27458-92-0   Tridecyl alcohol (1-tridecanol)   27458-92-0   Oleyl printate   110-36-1   Cetyl stearate   110-36-1   Cetyl stearate   110-63-2   Oleyl palmitate   2906-55-0   Oleyl palmitate   Oley	Capryl alcohol (1-n-octanol; heptyl carbinol)	111-87-5
Decyl alcohol (1-decanol)   112-30-1     Iso decyl alcohol (isodecanol)   25339-17-7     Enanthyl alcohol (1-heptanol; heptyl alcohol)   111-70-6     Lauryl alcohol (1-heptanol; heptyl alcohol)   112-53-8     Myristyl alcohol (1-tetradecanol; tetradecanol)   112-72-1     Nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol)   143-08-8     Iso nonyl alcohol (isononanol)   27458-94-2     Oleyl alcohol (octadecanol)   112-92-5     Tridecyl alcohol (1-tridecanol)   27458-92-0     Stearyl alcohol (1-tridecanol)   27458-92-0     Fatty acid esters - combination of above fatty acids and fatty alcohols     c.g. Butyl myristate   110-36-1     Cetyl stearate   110-36-1     Cetyl stearate   110-63-2     Oleyl palmitate   2906-55-0     Fatty alcohol blends   Cetyl stearyl alcohol (C12-C14)     Formic acid (methanoic acid; hydrogen carboxylic acid)   64-18-6     Glycerine (glycerol, glycerin)   56-81-5     Heptane   142-82-5     n-Hexane   110-54-3     Iso-butyl acetate   110-90     Iso-ortyl alcohol (isooctanol)   26952-21-6     Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)   67-63-0     Limonene (dipentene)   138-86-3     Magnesium chloride solution   67-56-1     Methyl ethyl ketone (2-butanone; MEK)   78-33-3     Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK)   108-10-1     Methyl tertiary butyl ether (MBTE)   169-66-0     Petroleum wax (parafin wax)   8002-53-7		36653-82-4
Enanthyl alcohol (1-heptanol; heptyl alcohol)		112-30-1
Lauryl alcohol (n-dodecanol; dodecyl alcohol)   112-53-8     Myristyl alcohol (1-tetradecanol)   112-72-1     Nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol)   143-08-8     Iso nonyl alcohol (isononanol)   27458-94-2     Oleyl alcohol (octadecenol)   143-28-2     Stearyl alcohol (1-octadecanol)   112-92-5     Tridecyl alcohol (1-tridecanol)   27458-92-0     Fatty acid esters – combination of above fatty acids and fatty alcohols     c.g. Butyl myristate   110-36-1     Cetyl stearate   110-63-2     Oleyl palmitate   2906-55-0     Fatty alcohol blends   Cetyl stearyl alcohol (C16-C18)   67762-27-0     Lauryl myristyl alcohol (C12-C14)   Formic acid (methanoic acid; hydrogen carboxylic acid)   64-18-6     Glycerine (glycerol, glycerin)   56-81-5     Heptane   142-82-5     n-Hexane   110-54-3     Iso-butyl acctate   110-19-0     Iso-octyl alcohol (isooctanol)   26952-21-6     Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)   67-63-0     Limonene (dipentene)   138-86-3     Magnesium chloride solution   7786-30-3     Methanol (methyl alcohol)   67-56-1     Methyl tetriary butyl ether (MBTE)   163-40-4     Molasses   57-50-1     Montan wax   8002-53-7     Pentane   109-66-0     Petroleum wax (parafin wax)   8002-74-2	Iso decyl alcohol (isodecanol)	25339-17-7
Myristyl alcohol (1-tetradecanol; tetradecanol)	Enanthyl alcohol (1-heptanol; heptyl alcohol)	111-70-6
Myristyl alcohol (1-tetradecanol; tetradecanol)		112-53-8
Nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol)   143-08-8	· · · · · · · · · · · · · · · · · · ·	112-72-1
Iso nonyl alcohol (isononanol)   27458-94-2     Oleyl alcohol (octadecenol)   143-28-2     Stearyl alcohol (I-octadecanol)   112-92-5     Tridecyl alcohol (I-tridecanol)   27458-92-0     Fatty acid esters – combination of above fatty acids and fatty alcohols     e.g. Butyl myristate   110-36-1     Cetyl stearate   110-63-2     Oleyl palmitate   2906-55-0     Fatty alcohol blends   Cetyl stearyl alcohol (C16-C18)   67762-27-0     Lauryl myristyl alcohol (C12-C14)   Formic acid (methanoic acid; hydrogen carboxylic acid)   64-18-6     Glycerine (glycerol, glycerin)   56-81-5     Heptane   142-82-5     n-Hexane   110-54-3     Iso-butyl acetate   110-19-0     Iso-octyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)   67-63-0     Limonene (dipentene)   138-86-3     Magnesium chloride solution   7786-30-3     Methyl ethyl ketone (2-butanone; MEK)   78-93-3     Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK)   108-10-1     Molasses   57-50-1     Montan wax   8002-53-7     Pentane   109-66-0     Petroleum wax (parafin wax)   8002-74-2		143-08-8
143-28-2     Stearyl alcohol (1-octadecanol)   112-92-5     Tridecyl alcohol (1-tridecanol)   27458-92-0     Fatty acid esters – combination of above fatty acids and fatty alcohols     e.g. Butyl myristate   110-36-1     Cetyl stearate   110-63-2     Oleyl palmitate   2906-55-0     Fatty alcohol blends   2906-55-0     Fatty alcohol (C16-C18)   67762-27-0     Lauryl myristyl alcohol (C12-C14)   70-20   20-20     Formic acid (methanoic acid; hydrogen carboxylic acid)   64-18-6   61/9cerine (glycerol, glycerin)   56-81-5     Heptane   142-82-5     n-Hexane   110-54-3     Iso-butyl acetate   110-19-0     Iso-octyl alcohol (isooctanol)   26952-21-6     Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)   67-63-0     Limonene (dipentene)   138-86-3     Magnesium chloride solution   7786-30-3     Methanol (methyl alcohol)   67-56-1     Methyl ethyl ketone (2-butanone; MEK)   78-93-3     Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK)   108-10-1     Methyl tertiary butyl ether (MBTE)   1634-04-4     Molasses   57-50-1     Montan wax   8002-53-7     Pentane   109-66-0     Petroleum wax (parafin wax)   8002-74-2	, , , , , , , , , , , , , , , , , , ,	27458-94-2
Stearyl alcohol (1-octadecanol)	•	
Tridecyl alcohol (I-tridecanol)   27458-92-0	·	
Fatty acid esters – combination of above fatty acids and fatty alcohols         110-36-1           e.g. Butyl myristate         110-63-2           Oleyl stearate         110-63-2           Oleyl palmitate         2906-55-0           Fatty alcohol blends         67762-27-0           Lauryl myristyl alcohol (C16-C18)         67762-27-0           Lauryl myristyl alcohol (C12-C14)         64-18-6           Glycerine (glycerol, glycerin)         56-81-5           Heptane         142-82-5           n-Hexane         110-54-3           Iso-butyl acetate         110-19-0           Iso-octyl alcohol (isooctanol)         26952-21-6           Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)         67-63-0           Limonene (dipentene)         138-86-3           Magnesium chloride solution         7786-30-3           Methanol (methyl alcohol)         67-56-1           Methyl ethyl ketone (2-butanone; MEK)         78-93-3           Methyl tertiary butyl ether (MBTE)         1634-04-4           Molasses         57-50-1           Montan wax         8002-53-7           Pentane         109-66-0           Petroleum wax (parafin wax)         8002-74-2	· · · · · · · · · · · · · · · · · · ·	
e.g. Butyl myristate Cetyl stearate Oleyl palmitate Cetyl steary Oleyl palmitate  Cetyl stearyl alcohol blends Cetyl stearyl alcohol (C16-C18) Lauryl myristyl alcohol (C12-C14)  Formic acid (methanoic acid; hydrogen carboxylic acid) Glycerine (glycerol, glycerin) Forhic acid (methanoic acid; hydrogen carboxylic acid) Glycerine (glycerol, glycerin)  Formic acid (methanoic acid; hydrogen carboxylic acid) Glycerine (glycerol, glycerin)  Formic acid (methanoic acid; hydrogen carboxylic acid)  Glycerine (glycerol, glycerin)  Formic acid (methanoic acid; hydrogen carboxylic acid)  Glycerine (glycerol, glycerin)  Formic acid (methanoic acid; hydrogen carboxylic acid)  Formic acid (methanoic acid; hyd		2, 100 / 2
Cetyl stearate         110-63-2           Oleyl palmitate         2906-55-0           Fatty alcohol blends         67762-27-0           Cetyl stearyl alcohol (C16-C18)         67762-27-0           Lauryl myristyl alcohol (C12-C14)         64-18-6           Glycerine (glycerol, glycerin)         56-81-5           Heptane         142-82-5           n-Hexane         110-54-3           Iso-butyl acetate         110-19-0           Iso-octyl alcohol (isooctanol)         26952-21-6           Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)         67-63-0           Limonene (dipentene)         138-86-3           Magnesium chloride solution         7786-30-3           Methanol (methyl alcohol)         67-56-1           Methyl ethyl ketone (2-butanone; MEK)         78-93-3           Methyl tertiary butyl ether (MBTE)         1634-04-4           Molasses         57-50-1           Montan wax         8002-53-7           Pentane         109-66-0           Petroleum wax (parafin wax)         8002-74-2		110-36-1
Oleyl palmitate         2906-55-0           Fatty alcohol blends         67762-27-0           Cetyl stearyl alcohol (C16-C18)         67762-27-0           Lauryl myristyl alcohol (C12-C14)         64-18-6           Formic acid (methanoic acid; hydrogen carboxylic acid)         64-18-6           Glycerine (glycerol, glycerin)         56-81-5           Heptane         142-82-5           n-Hexane         110-54-3           Iso-butyl acetate         110-19-0           Iso-octyl alcohol (isooctanol)         26952-21-6           Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)         67-63-0           Limonene (dipentene)         138-86-3           Magnesium chloride solution         7786-30-3           Methanol (methyl alcohol)         67-56-1           Methyl ethyl ketone (2-butanone; MEK)         78-93-3           Methyl tertiary butyl ether (MBTE)         1634-04-4           Molasses         57-50-1           Montan wax         8002-53-7           Pentane         109-66-0           Petroleum wax (parafin wax)         8002-74-2		
Fatty alcohol blends Cetyl stearyl alcohol (C16-C18) Lauryl myristyl alcohol (C12-C14)  Formic acid (methanoic acid; hydrogen carboxylic acid) Glycerine (glycerol, glycerin) Heptane 142-82-5 n-Hexane 110-54-3 Iso-butyl acetate 110-19-0 Iso-octyl alcohol (isopropanol; dimethyl carbinol; 2-propanol) Limonene (dipentene) 138-86-3 Magnesium chloride solution 7786-30-3 Methanol (methyl alcohol) Methyl ethyl ketone (2-butanone; MEK) 78-93-3 Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK) Molasses 57-50-1 Montan wax 8002-53-7 Pentane Petroleum wax (parafin wax) 8002-74-2	<del>-</del>	
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Heptane       142-82-5         n-Hexane       110-54-3         Iso-butyl acetate       110-19-0         Iso-octyl alcohol (isooctanol)       26952-21-6         Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)       67-63-0         Limonene (dipentene)       138-86-3         Magnesium chloride solution       7786-30-3         Methanol (methyl alcohol)       67-56-1         Methyl ethyl ketone (2-butanone; MEK)       78-93-3         Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK)       108-10-1         Methyl tertiary butyl ether (MBTE)       1634-04-4         Molasses       57-50-1         Montan wax       8002-53-7         Pentane       109-66-0         Petroleum wax (parafin wax)       8002-74-2	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	56-81-5
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Magnesium chloride solution7786-30-3Methanol (methyl alcohol)67-56-1Methyl ethyl ketone (2-butanone; MEK)78-93-3Methyl isobutyl ketone (4-methyl-2-pentanone; iso propylacetone; MIBK)108-10-1Methyl tertiary butyl ether (MBTE)1634-04-4Molasses57-50-1Montan wax8002-53-7Pentane109-66-0Petroleum wax (parafin wax)8002-74-2	Iso-propyl alcohol (isopropanol; dimethyl carbinol; 2-propanol)	67-63-0
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Pentane 109-66-0 Petroleum wax (parafin wax) 8002-74-2		
Petroleum wax (parafin wax) 8002-74-2		
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Potable water – only acceptable where the immediate previous cargo is also on the list	7732-18-5
Polypropylene glycol	25322-69-4
Potassium hydroxide solution (caustic potash)	1310-58-3
Propyl acetate	109-60-4
Propyl alcohol (propane-1-ol; l-propanol)	71-23-8

Substance (synonyms)	CAS Number
Propylene glycol, 1,2- (1,2-propylene glycol; propan-1,2-diol; 1.2-dihydroxypropane; monopropylene glycol (MPG); methyl glycol)	57-55-6
Propylene tetramer ((tetrapropylene; dodecene)	6842-15-5
Silicon dioxide (microsilica)	7631-86-9
Sodium hydroxide solution (caustic soda, lye; sodium hydrate; white caustic)	1310-73-2
Sodium silicate (water glass)	1344-09-8
Sorbitol (D-sorbitol; hexahydric alcohol; D-sorbite)	50-70-4
Soybean oil epoxidized	8013-07-8
Sulphuric acid	7664-93-9
Urea ammonia nitrate solution (UAN)	
White mineral oils	8042-47-5

APPENDIX V

# PROPOSED DRAFT LIST OF ACCEPTABLE PREVIOUS CARGOES (At Step 5/8 of the Procedure)

### List of acceptable previous cargoes

Substance (synonyms)	CAS Number
iso-Butanol (2-methyl-1-propanol)	78-83-1
Calcium ammonium nitrate solution	6484-52-2
Calcium nitrate (CN-9) solution	35054-52-5
Fatty acid methyl esters	
These include for example,	
e.g. Methyl laurate (methyl dodecanoate)	111-82-0
Methyl oleate (methyl octadecenoate)	112-62-9
Methyl palmitate (methyl hexadecanoate)	112-39-0
Methyl stearate (methyl octadecanoate)	112-61-8
Hydrogen peroxide	
Kaolin slurry	1332-58-7
1,3 -Propylene glycol	504-63-2
Unfractionated fatty acid mixture or mixtures of fatty acids from natural oils and Fats	
Unfractionated fatty alcohol mixture or mixtures of fatty alcohols from natural oils and fats	
Unfractionated fatty esters or mixtures of fatty esters from natural oils and fats	
Fructose	

Appendix VI

#### PROJECT DOCUMENT

#### IN VIEW OF THE DEVELOPMENT OF A CODEX STANDARD FOR FISH OILS

This project document has been developed according to the Codex Alimentarius Commission Procedural Manual 19<sup>th</sup> Edition, 2010 Section II, Procedures for the Elaboration of Codex Standards and related texts, part 2. Critical review, proposals to undertake new work or to revise a standard (page 23).

#### 1. Purpose and Scope of the Standard

**The Purpose** of proposing this new work is to establish a standard containing quality and compositional factors for different fish oils (including shellfish oils). For the purpose of the proposed Standard the term fish oils refers to oils derived from fish and shellfish as defined in section 2 of the Code of Practice for Fish and Fishery Products (CAC/RCP 52-2003)<sup>3</sup>.

Fish oils have a specific composition which makes them an important ingredient in an increasing variety of foods. Currently, there are multiple types of fish oils on the market. It is proposed to develop a Codex Standard, which will initially cover the fish oils which meet the Codex criteria for new work. It should be possible to easily update the proposed Standard to include other fish oils based on their importance in international trade and provided that they meet Codex criteria for new work. The level of detail required in the standard regarding composition and quality factors necessary to meet the stated objectives will be determined during the deliberations of the Codex Committee on Fats and Oils.

The aims of Codex Standards are to ensure consumer protection from the point of view of health and food safety and fair practices in the food trade while taking into account the identified needs of developing countries. Establishing a Codex Standard for Fish Oils containing quality and compositional factors will ensure fair practices in trade in these commodities. Furthermore, in order to ensure consumer protection, it is important to establish quality and compositional factors for fish oils.

Currently, due to the lack of an international standard, fish oils are traded with differing levels of information which makes it difficult for authorities to judge whether a particular type of oil is acceptable. Furthermore, due to the lack of harmonized information and references, consumers are unable to make an informed choice.

The Codex Alimentarius Commission has developed Standards for almost all fats and oils commonly used in food. However, fish oils are increasingly important foodstuffs for which up to now no specific Standard has been developed. Neither the Codex *Standard for Edible Fats and Oils*, nor the Codex *Standard for Named Animal Fats* adequately cover the specific nature of fish oils.

Due to their specific composition, fish oils are more sensitive to oxidation compared to other oils. Therefore, quality factors such as peroxide value (POV) or iron content laid down in existing Standards are not appropriate.

**The Scope** of the new work is a Codex Standard for Fish Oils including those derived from shellfish that meet the Codex Criteria for new work.

#### 2. Relevance and Timeliness:

Beyond the traditional use of cod liver oil, the consumption of fish oils for their specific composition is a more recent phenomenon observed in many countries.

Initially fish oil was proposed to the consumer as a supplement (e.g. in soft gelatin capsules). Today, fish oils are added to foodstuffs and consumer awareness is increasing. However, there is a lack of knowledge amongst consumers and national authorities on appropriate quality and compositional factors.

As trade in fish oils has increased rapidly over the past 10 years, and is now approximately 80,000 metric tons<sup>4</sup>, an international standard is required to enable fair practices in trade.

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<sup>&</sup>lt;sup>3</sup> *Fish* Any of the cold-blooded (ectothermic) aquatic vertebrates. Amphibians and aquatic reptiles are not included. *Shellfish* Those species of aquatic molluses and crustaceans that are commonly used for food.

<sup>&</sup>lt;sup>4</sup> Market survey data, Global Organisation of EPA and DHA (GOED), 2008.

#### 3. Main Aspects to be covered:

The proposed new work on a Standard for Fish Oils will be developed according to the structures of the existing Codex Standards for fats and oils and it will include the following sections:

- Scope,
- Description,
- Essential composition and quality factors,
- Food additives,
- Contaminants,
- Hygiene,
- Labelling,
- Methods of analysis and sampling,
- Tables with characteristic fatty acid composition of the described oils.

#### 4. Assessment of the Criteria for the Establishment of Work Priorities:

The proposed new work complies with the criteria for the establishment of work priorities applicable to commodities as laid down in the Procedural Manual of the Codex Alimentarius Commission, 19<sup>th</sup> edition, (2010) page 33.

a) Volume of production and consumption in individual countries and volume and pattern of trade between countries.

Fish oils for human consumption are a high value commodity. The international trade in processed fish oils suitable for human consumption is approximately 80,000 metric tons and is worth 1 billion USD. Thus-far during the 21<sup>st</sup> century, the quantity of fish oils traded for human consumption has doubled every 4 years and growth in the demand as well as trade of this commodity is projected to continue.

On a volume basis most oil is derived from members of the fish families *Clupeidae* and *Engraulidae*. However on a value basis there are three distinct types of oil that share a significant proportion of current trade; in addition to the above there are oils traded as concentrates and oils traded on the basis of their specific origin (such as tuna oil and cod-liver oil). All of these oils have distinct composition characteristics.

The fish oil supply chain is international, major fisheries are located in regions distant from refiners and producers of end consumer products. Global shipments between sites of primary production and food manufacturers are commonplace. It is common for fish oil or products containing fish oil to cross several national borders before reaching the final consumer.

b) Diversification of national legislation and apparent resultant or potential impediments to international trade.

As no internationally harmonised standard for Fish Oils exists, difficulties in and impediments to trade occur regularly.

Due to the lack of an international standard, fish oils are currently traded with varying levels of information provided concerning their source, composition and quality. As there are variations possible in the degree of processing, purity, addition of additives and molecular forms of the oil, it is difficult for national authorities to judge whether individual shipments are acceptable.

This new work will assist in providing an internationally harmonized approach for quality and compositional factors as well as the labelling and trade in fish oils.

c) International or regional market potential.

The majority of fish oils traded for human consumption are produced in specific geographical areas, whereas consumption in finished food products is global.

d) Amenability of the commodity to standardization

Although fish oils are traded for their content of specific fatty acids, there are a range of distinct fish oils on the market.

Despite this diversity, all fish oils intended for human consumption should meet minimum quality characteristics.

It is possible to group fish oils into distinct categories, such as 'named' fish oils from specific species with defined compositional criteria and 'unnamed' fish oils with basic compositional criteria.

Fish oil is a commodity which is considered as amenable to standardization by the CCFO.

e) Coverage of the main consumer protection and trade issues by existing or proposed general standards.

The development of a Codex Standard for Fish Oils containing essential composition and quality factors will enable a harmonization of fish oils and thereby contribute to consumer protection whilst ensuring fair practices in the trade of fish oils.

f) Number of commodities which would need separate standards indicating whether raw, semiprocessed or processed.

There are multiple types of fish oil. The proposal is to develop a Codex Standard, which will initially cover the fish oils which meet the Codex criteria for new work. It should be possible to easily update the proposed Standard to include other fish oils based on their importance in international trade and provided that they meet Codex criteria for new work.

g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies).

There is no existing international standard for the food use of fish oils. This lack of standardization has led to the development of a voluntary industry standard<sup>5</sup>, which is however not recognized by authorities. A Codex Standard covering all necessary quality and compositional factors is therefore required.

#### 5. Relevance to the Codex Strategic Objectives:

The outcome of the proposed new work is relevant to the overarching

Goal 1: Promoting Sound Regulatory Frameworks, as well as

<u>Goal 1.2</u>: Review and develop Codex Standards and related texts for food quality.

The results of this new work will contribute to the development of sound food control and regulatory infrastructures and they will consequently promote the quality and suitability of fish oils for human consumption.

#### 6. Information on the Relation between the Proposal and other Existing Codex Documents:

Codex has developed standards for almost all fats and oils used in food, including:

- Standard for Milk Fat Products (CODEX STAN A -2-19 73, Rev. 1-1999, Amended 2006)
- Standard for Edible Fats and Oils not covered by Individual Standards [(CODEX STAN 19- 1981 (Rev. 2-1999)]
- Standard for Olive Oils and Olive Pomace Oils [CODEX STAN 33-1981 (Rev.2-2003)]
- Standard for Named Vegetable Oils [CODEX STAN 210 (Amended 2003, 2005)]
- Standard for Named Animal Fats (CODEX STAN 211-1999),

The Standard for Edible Fats and Oils not covered by Individual Standards and the Standard for Named Animal Fats do not adequately cover fish oils. Due to their specific composition, fish oils are more sensitive to oxidation compared to other oils. Therefore, quality factors such as peroxide value (POV) or iron content laid down in existing Standards are not appropriate.

<sup>&</sup>lt;sup>5</sup> GOED Voluntary Monograph, <a href="http://www.goedomega3.com/portals/0/public/GOEDMonograph.pdf">http://www.goedomega3.com/portals/0/public/GOEDMonograph.pdf</a>

#### 7. Identification of any Requirement for and Availability of Expert Scientific Advice:

The European Food Safety Authority issued a scientific opinion on fish oils which considered food hygiene aspects and rancidity of fish oils<sup>6</sup>. Further assessments by national authorities may also be forthcoming.

## 8. Identification of any Need for Technical Input to the Standard from External Bodies so that this can be planned for:

Input on analytical methods may be sought from recognised international organisations.

# 9. Proposed Time-line for Completion of the New Work, including the Start Date. The proposed Date for Adoption at Step 5, and the proposed Date for Adoption by the Commission; the Time Frame for developing a Standard should not normally exceed five Years:

Work plan for the development of a Codex Standard for Fish Oils.

Timetable	Meeting	Progress
February 2011	22 <sup>nd</sup> session of the Codex Committee on Fats and Oils, Malaysia	Agreement to undertake New Work on the Codex Standard for Fish Oils and to seek approval of New Work from the Codex Alimentarius Commission at its 34 <sup>th</sup> session (July 2011).
July 2011	34 <sup>th</sup> session of the Codex Alimentarius Commission.	Approval of New Work.
August 2011 to October 2012	Intersession – Electronic Working Group	Development of a Proposed Draft Standard and circulation for comments by the Codex secretariat at Step 3 in view of the 23 <sup>rd</sup> session of the CCFO (2013).
February 2013	23 <sup>rd</sup> session of the Codex Committee on Fats and Oils	Discussion of the Proposed Draft Standard for Fish Oils at step 4 and proposal to forward the Draft Standard to CAC for adoption at step 5.
July 2013	36 <sup>th</sup> session of the Codex Alimentarius Commission	Adoption of the Draft Standard for Fish Oils at step 5.
August 2013 to October 2014	Intersession – Electronic Working Group	Circulation of the Draft Standard for comments and revision in light of the comments received.
February 2015	24 <sup>th</sup> Session of the Codex Committee Fats and Oils	Consideration of the Draft Standard for Fish Oils at step 7 and submission to the CAC for adoption at step 8.
July 2015	38 <sup>th</sup> session of the Codex Alimentarius Commission	<b>Final Adoption</b> of the Draft Standard for Fish Oils at step 8.

<sup>&</sup>lt;sup>6</sup> Scientific Opinion on Fish Oil for Human Consumption. Food Hygiene, including Rancidity. EFSA Journal 2010;8(10):1874

Appendix VII

#### PROJECT DOCUMENT

#### PROPOSED DRAFT AMENDMENT TO THE STANDARD FOR NAMED VEGETABLE OILS; RICE BRAN OIL

#### 1. Purpose and Scope of the Standard

Proposal for the amendment of the Standard for Named Vegetable Oils: Rice Bran Oil to amend the levels of fatty acid composition and desmethylsterols.

#### 2. Its Relevance and Timeliness

The 32<sup>nd</sup> Session of the Codex Alimentarius Commission (CAC) in 2009 adopted the Draft Amendment to the Standard for Named Vegetable Oils: Inclusion of Rice Bran Oil at Step 8 and agreed that the CCFO should reconsider the level of other desmethylsterols if new data became available. Consequently, Thailand committed to undertake additional study on desmethylsterols levels as well as other quality factors of rice bran oil to be presented to the 22<sup>nd</sup> Session of CCFO in February 2011.

#### 3. Main aspects to be covered

The proposed changes to the current values for Rice Bran Oil in the Standard for Named Vegetable Oils, specifically, detailed information of the analytical results is provided in the summary of the study on fatty acid composition and desmethylsterols in rice bran oil.

#### 4. Assessment against the Criteria for the establishment of work priorities

Criteria applicable to commodities:

(a) Consumer protection from the point of view of health and fraudulent practices.

Provisions in the Standard for Named Vegetable Oils already provide consumer protection from the point of view of health and fraudulent practices. The correction of the values in the standard for the levels of desmethysterols in rice bran oil aims to reflect accurate chemical characteristics of this oil, thus contributes to the protection of consumers from fraudulent practices.

(b) Volume production and consumption in individual country, and volume and pattern of trade between countries.

The world production of rice bran oil is approximately 1 - 1.4 million tonnes. The major producing countries are China, India, Japan, Myanmar and Thailand. The great number of countries in Asia, Europe, America, and Australia are importers.

(c) Diversification of national legislations and apparent resultant or potential impediments to international trade.

The Standard for Named Vegetable Oils was developed to respond to diversification of national legislations and potential impediments to international trade.

(d) International or regional market potential.

The rice bran oil has a long history of international trade in significant quantities.

(e) Amenability of the commodity to standardization.

The proposed amendment is amenable to standardization as it is an amendment to existing standard.

(f) Coverage of the main consumer protection and trade issues by existing or proposed general standards.

Provisions in the Standard for Named Vegetable Oils already cover the main consumer protection and trade issues.

(g) Number of commodities which would need separate standards indicating whether raw, semi processed or processed.

This item is not relevant to this proposal.

(h) Work already undertaken by other international organizations in this field.

There is no other international standard covering this aspect of the rice bran oil.

#### 5. Relevance to the Codex strategic objectives

This proposal is consistent with the Strategic Vision statement of the Strategic Plan 2008-2013, subheading a) Promoting sound regulatory frameworks.

6. Information on the relation between the proposal and other existing Codex documents

None.

7. Identification of any requirement for and availability of expert scientific advice

None

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for

None.

9. The proposed time-line for completion of the new work, including the start date, the proposed date for adoption at Step 5, and the proposed date for adoption by the Commission

The Committee and Commission are requested to consider whether the proposed new work should be undertaken according to the Uniform Procedure. As the Codex Committee on Fats and Oils only meets every two years, it is proposed that the amendment to the Standard for Named Vegetable Oils: Inclusion of Rice Bran Oil be developed according to the Codex Procedure as follows:

Timetable	Meeting	Progress
July 2011	34 <sup>th</sup> session of the Codex Alimentarius Commission.	Approval as new work by CAC
February 2013	23 <sup>rd</sup> session of the Codex Committee on Fats and Oils	Proposed date for consideration at Step 4 by CCFO
July 2013	36 <sup>th</sup> session of the Codex Alimentarius Commission	posed date for adoption by CAC by Step 5/8