

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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Agenda Item 4 a)

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FATS AND OILS

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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

COMMENTS AT STEP 6

BRAZIL

Brazil agrees with the inclusion of the criteria in the Code for the Storage and Transport of Edible Fats and Oils in Bulk. Regarding criteria 2, Brazil considers extremely important that Codex establish a science-based, transparent procedure open to all Codex members for evaluating the safety of the substances on the proposed lists that have not been assigned a numeric ADI or an ADI not specified by JECFA **to avoid that each country adopts different procedures.**

COLOMBIA

2.1.3 Contamination

In point 3 delete "unless the identified food allergen can be adequately removed by subsequent processing of the fat or oil for its intended use."

The above is to take into account that it would not be possible to know what would be the best method of elimination and if the owner of the product has available teams to carry out the relevant process. Moreover, how is it ensured that the process would be carried out with the purpose of eliminating the allergen.

EUROPEAN UNION

The European Union (EU) would like to take the opportunity to send its comments on 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".

The EU strongly supports that the criteria to assess the acceptability of substances for inclusion in a list of acceptable previous cargoes are established by Codex Alimentarius in view of their importance to ensure consumers' health protection.

The EU supports the proposed amendment to the Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk for final adoption at Step 8 at the 34th Session of the Codex Alimentarius Commission.

JORDAN

Jordan agrees with this international code and would like to present the following comment:

We think that there are two other reasons for the damage of storage and transported edible fats and oils, other than contamination which are oxidation and hydrolysis. So we recommend discussing these two points in this code of practice.

PHILIPPINES

The Philippines would like to propose revisions on the following items:

CRITERION 1

From	To
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.	The substance is transported/stored in an appropriately designed system; with adequate approved cleaning routines, including the verification of the efficacy of cleaning between cargoes, followed by effective inspection, analysis, when deemed necessary , and recording procedures as cited in Section 4.4.6 of the Recommended International Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk.

Justification: Approved implies the conclusive decision of all those involved in the actual cleaning routine, more so that the material to be stored is specifically stated to be stored in an “appropriate designed system”.

The inserted phrase provides for a situation to get samples for analysis in order to check whether a substance exceeds the allowed level or limit when the need arises, but only when an analysis is required or assumed needed.

Citing the appropriate section of the Code of Practice gives specific reference to preclude subjectivity of the term “adequate”.

CRITERION 2

From	To
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.	Residues of the substance in the subsequent cargo of fat or oil should not result in adverse human health effects. The allowable daily intake (ADI) or tolerable daily intake (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 using related evaluations by JECFA or other available scientific papers.

Justification: Adding the highlighted phrase emphasizes the need to base evaluations on internationally accepted data.

SCF CRITERION 5

From	To
	Availability of analytical methods to verify the presence of trace amounts of residues or the absence of contamination of oils and fats

Justification: the CCFO criteria do not expressly cover the analytical methods which will be needed in the evaluation of substances without known numerical ADI (or TDI)

UNITED STATES

The United States is pleased to submit the following comments in reply to CL 2010/31-FO on 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* (ALINORM 09/32/17, para. 55 and Appendix III) and the Draft Amendment to the Standard for Named Vegetable Oils: Palm Kernel Olein and Palm Kernel Stearin (para. 85, Appendix IV) for consideration at the forthcoming 22nd Session of the Codex Committee on Fats and Oils (CCFO).

GENERAL COMMENT

The United States continues to have substantive concerns regarding the practicalities of Codex establishing and maintaining a list of acceptable previous cargoes for the bulk transport of edible fats and oils. We can agree to Codex establishing criteria for acceptable previous cargoes with the revisions described above. We believe that establishing Codex criteria that are performance based is the best way forward to protect consumer health and to promote fair trading practices.

SPECIFIC COMMENTS

PROPOSED SECTION 2.1.3:

The United States proposes to delete references in Section 2.1.3 to acceptable lists of prior cargo. Additionally, the United States proposes to add an additional criterion #2 to address whether a substance used as a previous cargo can be analyzed and whether it is removed by subsequent processing of the fat or oil. Current criteria 2, 3, and 4 would be renumbered 3, 4, and 5 respectively. The revised language would read:

“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. There should be analytical methodology capable of detecting the substance in the edible fat or oil. Consideration should be given to whether the substance is present in the edible fat or oil or will be removed by subsequent processing of the fat or oil.
3. 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.
4. 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.
5. 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.”

DISCUSSION

The United States has no objection to inclusion in the Code of Practice, criteria for use by countries to determine the acceptability of prior cargos. However, these criteria should be for use by countries.

1. The Codex Committee on Fats and Oils (CCFO) does not have inherent competence to assess the safety of contaminating prior cargos. The competence rests with the competent national authority. The references in criteria #2 to assessment of adverse health effects based on a TDI or ADI is a competence within the purview of countries and JECFA. In the absence of JECFA providing the toxicological assessment of each of the proposed acceptable substances, the competence rests with countries.
2. The criteria are incomplete in that they do not take into account whether the previous cargo substance can actually be analyzed in the finished product, or whether it is removed by subsequent refining or processing of the fat or oil. Current practice is to take these factors into consideration when determining the suitability of a previous cargo. Such considerations should be included in the criteria. A suggested criterion to resolve these problems is outlined above in the proposed new #2 criterion.
3. The Code of Practice is not an appropriate vehicle for developing and maintaining a positive list of acceptable prior cargos. Such a list is cumbersome and cannot be easily and promptly amended upon a change in toxicological information. The CCFO meets only once every two years. Amendments to such a list could take several meetings and stretch over several years. The long history of the current proposed positive list is an example. The existence of a list that cannot be updated on a timely basis to reflect changing trends in the edible oils and fats marketplace would be inadequate for consumers, national governments and industry, as it would rapidly become “stagnant”, and potentially hazardous if new data confirmed a serious health risk associated with a previous cargo on such an acceptable list. A “stagnant” list would not further the mission of Codex to protect consumer health and to promote fair trade practices and has the potential to adversely affect consumer health by limiting consumer’s access to otherwise safe edible fats and oils. Countries are in a position to promptly revise the assessment upon a change in toxicological information.
4. The substances on the current proposed lists have not been reviewed using a transparent process or using the criteria proposed above. Most of the substances on the Codex acceptable previous cargo list at Step 6 or 3 do not meet the second proposed draft criterion. Appendix 1 is a 2007 comparison of 113 substances on the Codex lists to JECFA’s ADI analyses of food additives. Of the 113 substances, a total of 53 have either not been evaluated by JECFA, or no ADI has been allocated; and a total of 36 have only been found to be safe under current conditions of use as flavors.

For the above reasons, the United States supports the inclusion of the draft criteria with the revisions noted above but opposes the inclusion in the Code of Practice of any positive list of acceptable prior cargos.

APPENDIX 1 – INFORMATION DEVELOPED IN 2007

Previous Cargos vs JECFA ADI					
INS	JECFA Flavor Number	Substance	JECFA ADI	ADI COMMENT	Step
260	0081	Acetic acid	Not Limited. No safety concern when used as flavor	Group ADI for acetic acid and its potassium and sodium salts	6
		Acetic anhydride		Not Evaluated	6
	0139	Acetone	Limited by GMP (Tentative)	No safety concern, based on current levels of intake when used as a flavor	6
		Acid oils and fatty acid distillates - from animal, marine and vegetable fats and oils		Not Evaluated	6

Previous Cargos vs JECFA ADI					
INS	JECFA Flavor Number	Substance	JECFA ADI	ADI COMMENT	Step
527		Ammonium hydroxide	Not Limited		6
452(v)		Ammonium polyphosphate	MTDI 70 mg/kg bw/d	Expressed as phosphorus from all sources	6
		Animal, marine and vegetable oils and fats (including hydrogenated oils and fats) - other than cashew shell nut oil and tall oil		Not Evaluated	6
901		Beeswax – white	Acceptable	Present uses (as a release and glazing agent in bakery products, a glazing agent on fresh and frozen fruit, a glazing agent on candy, a carrier for flavors, and a component of chewing-gum base) not of toxicological concern	6
901		Beeswax – yellow	Acceptable	Present uses (as a release and glazing agent in bakery products, a glazing agent on fresh and frozen fruit, a glazing agent on candy, a carrier for flavors, and a component of chewing-gum base) not of toxicological concern	6
	0025	Benzyl alcohol (pharmaceutical and reagent grades)	No Safety Concern	Based on current levels of intake when used as a flavor	6
		1,3-Butanediol	0-4 mg/kg bw/d		6
		1,4-Butanediol		Not Evaluated	6
	0127	Butyl acetate, n-	No safety concern	Based on current levels of intake when used as a flavor	6
		Butyl acetate, sec-		Not Evaluated	6
		Butyl acetate, tert-		Not Evaluated	6
509		Calcium chloride solution	Not Limited		6
		Calcium lignosulphonate liquid		Not evaluated	6
902		Candelilla wax	Acceptable	Present uses (as a glazing agent, a component of chewing-gum base, a surface-treating agent, and a carrier for flavoring substances) not of toxicological concern	6
903		Carnauba wax	0-7 mg/kg bw/d		6
		Cyclohexane		No ADI allocated	6
	0041	Ethanol	Limited by GMP	Solvent	6
	0027	Ethyl acetate	No Safety Concern	Based on current levels of intake when used as a flavor	6
	0267	2-Ethylhexanol	0-0.5 mg/kg bw/d	No safety concern, based on current levels of intake when used as a flavor	6

Previous Cargos vs JECFA ADI					
INS	JECFA Flavor Number	Substance	JECFA ADI	ADI COMMENT	Step
Fatty Acids					
		Arachidic acid		Not evaluated	6
		Behenic Acid		Not evaluated	6
	0087	Butyric acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0105	Capric acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0093	Caproic acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0099	Caprylic acid	No safety concern	The peroxy compounds in these solutions (hydrogen. Based on current levels of intake when used as a flavor peroxide, peroxyacetic acid and peroxyoctanoic acid) would break down into acetic acid and octanoic acid, and small residual quantities of these acids on foods at the time of consumption would not pose a safety concern.	6
		Erucic acid		Not evaluated	6
	0096	Heptonic acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0111	Lauric acid	No safety concern	Based on current levels of intake when used as a flavor	6
		Lauroleic acid		Not evaluated	6
	0332	Linoleic acid	No safety concern	Based on current levels of intake when used as a flavor	6
		Linolenic acid		Not evaluated	6
	0113	Myristic acid	No safety concern	Based on current levels of intake when used as a flavor	6
		Myristoleic acid		Not evaluated	6
	0333	Oleic acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0115	Palmitic acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0102	Pelargonic acid	No safety concern	Based on current levels of intake when used as a flavor	6
		Ricinoleic acid		Not evaluated	6
	0116	Stearic acid	No safety concern	Based on current levels of intake when used as a flavor	6
	0090	Valeric acid	No safety concern	Based on current levels of intake when used as a flavor	6

Fatty Alcohols					
	0085	Butyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	0091	Caproyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	0097	Capryl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	0114	Cetyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	0103	Decyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
		Iso decyl alcohol		Not evaluated	6
	0094	Enanthyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	0109	Lauryl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
		Myristyl alcohol		Not evaluated	6
	0100	Nonyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
		Iso nonyl alcohol		Not evaluated	6
	1637	Oleyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
		Stearyl alcohol		Not evaluated	6
		Tridecyl alcohol		Not evaluated	6
Fatty acid esters – combination of above fatty acids and fatty alcohols					
		Butyl myristate		Not evaluated	6
		Cetyl stearate		Not evaluated	6
		Oleyl palmitate		Not evaluated	6
Fatty alcohol blends					
		Cetyl stearyl alcohol (C16-C18)		Not evaluated	6
		Lauryl myristyl alcohol (C12-C14)		Not evaluated	6
236	0079	Formic acid	0-3 mg/kg bw/d	Group ADI for formic acid and ethyl formate, No safety concern when used as a flavor	6
422	0909	Glycerin	Not Specified	Evaluation as flavor not finalized	6
		Heptane	Limited by GMP		6
		n-Hexane	Limited by GMP		6
	0137	Iso-butyl acetate	No safety concern	Based on current levels of intake when used as a flavor	6
		Iso-octyl alcohol		Not evaluated	6
	0277	Iso-propyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
	1326	Limonene	No safety	Based on current levels of intake when used as a	6

			concern	flavor	
511		Magnesium chloride solution	Not Limited	Included in the ADI group for hydrochloric acid and bases	
		Methanol	Limited by GMP		6
	0278	Methyl ethyl ketone	No safety concern	Based on current levels of intake when used as a flavor	6
	0301	Methyl isobutyl ketone	No safety concern	Based on current levels of intake when used as a flavor	6
		Methyl tertiary butyl ether		Not evaluated	6
		Molasses		Not evaluated	6
		Montan Wax		Not evaluated	6
		Pentane		Not evaluated	6
905(c)		Petroleum wax	Withdrawn	Including LMPW (low-melting-point wax) and IMPW (intermediate-melting-point wax); previous ADI "NOT SPECIFIED" withdrawn because toxicological effects were observed at all dose levels	6
338		Phosphoric acid	MTDI 70	Expressed as phosphorus from all sources	6
		Potable water – only acceptable where the immediate previous cargo is also on the list		Not evaluated	6
		Propylene glycol		Not evaluated	6
1520	0925	Propylene glycol, 1,2-	0-25 mg/kg bw/d	Evaluation as flavor not finalized	6
525		Potassium hydroxide solution	Not Limited		6
	0126	Propyl acetate	No safety concern	Based on current levels of intake when used as a flavor	6
	0082	Propyl alcohol	No safety concern	Based on current levels of intake when used as a flavor	6
		Propylene tetramer		Not evaluated	6
551		Silicon dioxide	Not Specified	Group ADI for silicon dioxide and certain silicates (aluminium, calcium and sodium aluminosilicate)	6
524		Sodium hydroxide solution	Not Limited		6
		Sodium silicate		Not evaluated	6
420		Sorbitol	Not Specified		6
		Soybean oil epoxidized		Not evaluated	6
513		Sulphuric acid		Not evaluated	6
		Urea ammonia nitrate solution		Not evaluated	6
		White mineral oils		Not evaluated	6
		2,3-Butanediol		Not evaluated	3
	0251	iso-Butanol	No safety concern	Based on current levels of intake when used as a flavor	3
		Calcium ammonium nitrate solution		Not evaluated	3

	Calcium nitrate (CN-9) solution		Not evaluated	3
	Cyclohexanol		Not evaluated	3
1100	Cyclohexanone	No safety concern	Based on current levels of intake when used as a flavor	3
Fatty acid methyl esters				
0180	Methyl laurate	No safety concern	Based on current levels of intake when used as a flavor	3
	Methyl oleate		Not evaluated	3
	Methyl palmitate		Not evaluated	3
	Methyl stearate		Not evaluated	3
	Hydrogen peroxide	No ADI allocated	peroxide, peroxyacetic acid and peroxyoctanoic acid) would break down into acetic acid and octanoic acid, and small residual quantities of these acids on foods at the time of consumption would not pose a safety concern. May be used only where better methods of milk preservation are not available	3
	Kaolin slurry		Not evaluated	3
	1,3 -Propylene glycol		Not evaluated	3
	Unfractionated fatty acid mixture or mixtures of fatty acids from natural oils and fats		Not evaluated	3
	Unfractionated fatty alcohol mixture or mixtures of fatty alcohols from natural oils and fats		Not evaluated	3
	Unfractionated fatty esters or mixtures of fatty esters from natural oils and fats		Not evaluated	3
	Vegetable oil – epoxidised		Not evaluated	3

FEDIOL

FEDIOL, representing the interest of the EU Oil and Proteinmeal Industry would like to take the opportunity to send its comments on the Codex Circular Letter CL 2010/31-FO regarding 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”.

FEDIOL fully supports the need to define criteria in order to evaluate the safety of substances to be included in the list of acceptable previous cargoes.

FEDIOL agrees with the criteria 1, 3 and 4, as proposed in the current Codex Circular letter.

Regarding Criterion 2:

FEDIOL agrees that from a health protection point of view the use of an ADI (or TDI) is the best descriptor for the acceptability of a previous cargo. However, we believe that **post-refining of oils and fats** after their transport in ship tanks should also be taken into consideration, when assessing whether or not a substance is to be added to the acceptable previous cargoes’ list.

In that respect, FEDIOL supports the EU approach to distinguish between oils and fats intended for direct human consumption and those that will undergo further post-refining.

In case post-refining is being applied, we believe that the ADI (or TDI) of the substances to be considered as acceptable previous cargoes could be significantly lower than the set 0.1 mg/kg bw/day because of the removal of these components during the process. Refining will indeed lead to the effective removal or reduction of the content of all the substances potentially carried-over from previous cargoes. Hence, a substance with an ADI of 0.01 mg/kg-bw/day or lower could potentially qualify as an acceptable previous cargo. Consequently, **FEDIOL believes that all substances should be evaluated on a case by case basis, taking into consideration the efficiency of the removal capability through post-refining.** It should be noted that taking into account the element of post-refining is fully in line with criterion 3, which deals with previous cargoes containing an allergen.

Moreover, it is important to underline that the basis for the current ADI-value of 0.1 mg/kg bw/day, as proposed by Codex, is based on a worst case assessment regarding the carry-over of previous cargoes in relation to coated ships tank as opposed to stainless steel and corresponds, therefore, to an overestimation of the carry-over risk.

FOSFA

The draft list of acceptable previous cargoes is an important part of the recommended international code of practice for the storage and transport of edible fats and oils in bulk. The existence of this list allows trading parties to reduce the risk to their products while leaving the shipping industry some flexibility in the utilisation of their vessels and thus reducing their environmental impact. In order to fully understand the importance of this list, and also the banned list, some notes on how the international oils and fats trade is conducted have been attached to this letter (see below).

The Criteria

While accepting that lists are a requirement for continuing world trade, it would also be useful if there was an agreed set of criteria against which potential previous cargoes could be measured. The bodies that have produced lists of acceptable previous cargoes have used various similar sets of criteria but the main difference with the proposed Codex criteria is that they include a numerical parameter for toxicity. Our comments on each of the criteria are listed below.

Criterion 1: This criterion describes the requirements which are already in place through trade contracts and the new rules developed by the International Maritime Organisation. The current fleet of vessels used in the edible oil trade are designed for carrying materials from one port to another, discharging, cleaning and reloading with a different material. Thus, they have deep well pumps and internal spraying cleaners and steam blowers etc. The shipowners are very familiar with the requirements of the edible oils and fats industry. The shipowners clearly have a vested interest to maintain their freight space to high standards and customer requirements, reflecting the capital investment now required for all vessels.

Criterion 2: The requirement for maximum level of toxicity is a useful parameter to define the acceptability of a previous cargo. However, the calculation of the maximum level of contamination to calculate the probable daily intake assumed the very worst case scenario at every stage of the pumping, cleaning, loading and discharge processes. Thus, it is felt that the level of 0.1 mg/kg bw/day has a safety margin of at least 10x. This is confirmed by the few contamination cases which have occurred in the past 20 years.

Furthermore, this criterion takes no regard of the refining of the great majority of oils following their transport by sea. This steam distillation process will remove very many of the residue traces of previous cargoes should there have been any contamination. Taking this into account, it is felt that the critical ADI should be reduced by an order of 10x, that is, to 0.01 mg/kg bw/day for oils which are to be subsequently processed.

Even taking the above points into account, the main problem is seen as the treatment of materials which do not have an ADI. When considering an amendment to the Acceptable List, it will be necessary for the toxicology specialists to derive such a value from considering the properties of similar types of materials in the same series on a case by case basis.

Criterion 3: The importance of allergies within the food chain is increasing and this is reflected within this criterion.

Criterion 4: As stated in this criterion, edible oils are fairly unreactive, but even so, if there are any reaction products, then these should be subjected to the same criteria as the materials themselves.

Thus, with the amendment for a reduced critical ADI of 0.01 mg/kg bw/day as stated above, FOSFA supports the inclusion of the criteria into the Code of Practice, and paragraph 2.1.3 is probably the correct place for them.

Further comments on the draft amendment

Even with the addition of the criteria to paragraph 2.1.3, FOSFA feels that the amendment is unclear in some areas, and somewhat misleading in others. We believe that unless the Code of Practice reflects the current world trade contractual practices, then it will not be relevant to the world trade and will be ignored by it. In particular we would comment as follows.

1. In the first paragraph of 2.1.3, the Code states:

"Contamination is avoided ... 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."

This is not correct. Contamination is not avoided by the carriage of previous cargoes which are on any acceptable list. This merely reduces the risk to consumers of the oil if a contamination occurs.

2. In the second paragraph, it states:

"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."

This is true and should be the first consideration when selecting tanks for the carriage of edible oils and fats. However, the code does not say that tanks which have carried banned list cargoes must not be used to carry oils and fats as the next cargo.

In the third paragraph, it states:

"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."

From the two points above, it can be seen that the risks associated with the three types of previous cargo are as follows:

Cargoes on the banned list – high risk

Cargoes not on either list – medium to low risk

Cargoes on the acceptable list – low or minimal risk

Thus, as currently written, this third paragraph implies that a trading company may use a tank with a high risk (previous cargo on the banned list) without reference to competent authorities whereas they must refer to competent authorities for a medium risk product (previous cargo on neither list), which is not logical. Again, this supports the inclusion in the Code of Practice of a statement saying tanks with previous cargoes on the banned list must not be used to carry animal and vegetable fats and oils, which would be in agreement with world trade contracts.

There are further commercial difficulties as the third paragraph says that materials on neither list may only be used by a buyer if their government agrees that the previous cargo is acceptable. There are hundreds of these products in the medium risk category and we do not believe that many countries would set up the internal mechanisms/group of experts that would decide upon this category to allow importation of vegetable oils into their countries, and not within the time scale required for these decisions. Moreover, we feel that the development of the criteria for evaluating previous cargoes has eliminated the need to include this sentence referring to the "competent authorities of the importing countries".

Thus, it is suggested that the third paragraph is removed from the code, and from the reference in Appendix 3. The code would then recommend that tanks which have carried a banned list product are not used for the carriage of oils and fats as the next cargo and that if an importing country felt that the risk from contamination should be reduced even further, then it may recommend or legislate that only cargoes on the acceptable list may precede an edible oil. This reflects the current trade practices and also the legislation of the European Union which is the only 'region' in the world which has demanded, in legislative terms, this low risk provision for previous cargoes. We have attached our proposal of the revised paragraph 2.1.3 and Appendix 3 of the Code.

In summary, we are suggesting:

1. CCFO agree the amended Criteria as proposed above.
2. CCFO agree to add the substances approved by the European Food Safety Authority (December 2009) using these criteria, which are currently at Step 3, to the Draft Approved List at Step 7.
3. This revised list at step 7 can then be approved by the CCFO to become the Codex List of Acceptable Previous Cargoes as it has been investigated and approved at least twice by competent authorities (EFSA and its predecessor committee).
4. CAC agrees that any requests or removal or addition of any substances from/to both lists are referred to JECFA and their advice is considered by CCFO. Experience has shown that there are about two substances each year for which review may be required.
5. The Code of Practice is modified as suggested above to remove the requirement for individual countries to change the lists depending on their own evaluation. Of course they may legislate for lower risk imports, as per the EU, if they so desire.

These changes would mean that the Codex Code of Practice mirrored current trade practice and would become more useful for future international trade development.

RECOMMENDED INTERNATIONAL CODE OF PRACTICE FOR THE STORAGE AND TRANSPORT OF EDIBLE FATS AND OILS IN BULK (CAC/RCP 36 - 1987)

1. SCOPE

This Code of Practice applies to the handling, storage and transport of all crude or processed edible oils and fats in bulk.

2. INTRODUCTION

2.1 GENERAL

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 **not** included in the Codex List of ~~Acceptable~~ **Banned** Previous Cargoes at Appendix ~~32~~ of this Code.

The risk to consumers from any cContamination is ~~also avoided by the rejection~~ **further reduced by the use** of tanks which have carried as a last cargo products which are included on the Codex List of ~~Acceptable~~ **Banned** Immediate Previous Cargoes at Appendix ~~23~~ 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.

APPENDIX 2

CODEX LIST OF ACCEPTABLE PREVIOUS CARGOES

[To be developed.]

APPENDIX 3

CODEX LIST OF BANNED IMMEDIATE PREVIOUS CARGOES

Notes

~~(1) Cargoes not included in 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).~~

Background Notes on the Mechanics of the World Trade in Fats and Oils

It is estimated that over 85% of the international trade in oils and fats is carried out using FOSFA contracts. This has the benefit of allowing traders to discuss the major issues of quality, quantity, date of delivery and price, while leaving the other details of the transaction to their contract execution departments. These details (such as who organises the ship, who insures the cargo, sampling and analysis of the cargo etc) do not usually change and are well understood by both parties, being already documented and established globally.

It has been accepted for many years that the biggest risk to food safety within this international trade is the transporting of the cargo by sea from the producing country to the consuming country. The management of this risk area forms a major part of all FOSFA contracts and is described in the document 'Qualifications and Operational Procedures for Ships Engaged in the Carriage of Oils and Fats in Bulk for Edible and Oleo-Chemical Use'. It is accepted by most countries that the use of dedicated freight space, leading to empty tank return trips, is both uneconomic and environmentally unacceptable and thus, other cargoes may be carried as previous cargoes before the loading of edible oils.

Over the decades of modern trade, it had been found that some cargoes should not be allowed as previous cargoes due to their extreme toxicity, their intense bad flavour/smell characteristics, or the difficulty in cleaning them from the tanks and pipes. Thus, when the international contracts were revised with an increased awareness of food safety in the mid-1980s, a list of these difficult products was drawn up and designated as 'the banned list'. A clause was then added to the contracts stating that the receiver would not accept the oil if the previous cargo was on the banned list.

However, with the increase in sophistication of consumers together with the increased value of brand names and the fear of litigation, some companies wished to reduce the risk associated with contamination from a previous cargo. To this end, a list of common previous cargoes which would not cause too many problems if there were any carry-over was drawn up within FOSFA and other trade bodies. These cargoes were typically very water soluble or highly volatile, very easily cleaned, were not toxic and were easily detectable by chemical analysis. This list became known as 'the acceptable list' of previous cargoes. Thus, traders could add an optional clause to the standard contract, stating that the receiver would accept delivery of the oil only if the previous cargo was one included in the acceptable list. Thus, the two lists are never applied together within a contract and it is not necessary to consider the toxicity of these materials. Depending on the terms of the contract as agreed by the trading parties, either the banned list applies or the acceptable list applies.

In 1993, the European Union decreed that all foodstuffs must be transported in dedicated freight. However, in 1996, after representation from the industry and various producing countries, oils and fats were given derogation to this rule, but at the same time, it was decided that to ensure a reduced risk, all previous cargoes for imports into the EU must be on an EU acceptable list. At that time, EU food experts reviewed the FOSFA acceptable previous cargo list and accepted most of the substances for the EU list. Since then, FOSFA has added some new cargoes and in 2004, the EU carried out a further review and confirmed or removed some further substances to/from the list. In 2009, the European Commission asked the European Food Safety Authority to evaluate/re-evaluate the items which are on the Codex list at step 3 and also on the FOSFA list but not on the EU list, and to consider using the criteria proposed by Codex for this review. The results of this review are on the EFSA website.

No other region has yet adopted the same type of legislation as the EU for oils and fats. However, it should be noted that the trading rules used extensively for imports into the USA (the National Institute of Oilseed Products, NIOP, rules) also require that all previous cargoes are on the NIOP List of acceptable previous cargoes, which is essentially the same as the FOSFA list. But this is not USA legislation.

In summary, while it is not FOSFA's role to dictate the terms of trade between parties, the contracts do offer them a system by which they can reduce the risk of serious consequences from any contamination of their products by previous cargoes. There are obviously many products which do not appear on either list. In general, these products are more toxic than those on the acceptable list, and may not be removed by further processing, but nevertheless, with good management of the ships' tanks (cleaning, inspection etc) they will not cause problems during the shipping part of the supply chain, and while allowing greater flexibility in ship utilisation and voyage planning. It is also worth noting that since 1 January 2007, the carriage of oils and fats has been regulated by the International Maritime Organisation. This means that they are carried in ships which are specifically designed for carrying materials from one port to another, discharging, cleaning and reloading with a different material. Thus, they have deep well pumps and internal spraying cleaners and steam blowers etc. Also, the shipowners are very familiar with the requirements of the edible oils and fats industry and this has improved the quality of the shipping fleet used to transport oils and fats.