ANNEX 1

COMMENTS FROM GOVERNMENTS AND INTERNATIONAL ORGANISATIONS ON PROPOSED DRAFT LISTS OF ACCEPTABLE CARGOES AND OF BANNED IMMEDIATE PREVIOUS CARGOES FOR INCLUSION IN THE CODEX RECOMMENDED INTERNATIONAL CODE OF PRACTICE FOR STORAGE AND TRANSPORT OF EDIBLE OILS AND FATS IN BULK

The following comments have been received from Malaysia, the Philippines and the United Kingdom, and also from the ASEAN Vegetable Oils Club, FOSFA International and the National Institute of Oilseed Products (NIOP) in response to document CL 1999/3-FO.

Reference is made in the comments received to various cargo lists and these are reproduced and appended to this Annex as follows:

LIST A FOSFA International List of Banned Immediate Previous Cargoes
LIST B NIOP Unacceptable Prior Cargo List
LIST C European Commission Scientific Committee for Food – List of Acceptable Previous Cargoes
LIST D FOSFA International version of the Joint FOSFA/NIOP International List of Acceptable Previous Cargoes
LIST E NIOP Acceptable Prior Cargo Lists No. 1 and No. 2
LIST F NIOP version of the Joint FOSFA/NIOP International List of Acceptable Previous Cargoes
LIST G FOSFA International List of Acceptable Previous Cargoes

MALAYSIA

Malaysia would like to propose the attached lists of Banned Immediate Previous Cargoes (FOSFA International list – see LIST A) and Unacceptable Prior Cargoes (NIOP list – see LIST B) that are currently being practised by international trade to be incorporated in Appendix 3.

PHILIPPINES

In relation to the Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk, and the elaboration of the List of Acceptable and Banned Previous Cargoes (Appendices 2 and 3), we are endorsing to you the list submitted by the National Institute of Oil Seed products (NIOP) (see LIST B and LIST E) and the Federation of Oils, Seeds and Fats Association (FOSFA) (see LIST A and LIST G) .

UNITED KINGDOM

The UK believes that the CCFO must give thorough and careful consideration to the substances included in the cargo lists. In this respect, the UK would like to draw the Committee's attention to the work carried out by the European Commission's Scientific Committee for Food (SCF). The SCF have assessed the risk to human health arising from potential contamination of oils and fats shipped in tanks from substances proposed as acceptable previous cargoes in the transport vessels. The opinion of the SCF was issued in September 1996 (Document reference - CS/FMH/OILS/2-FINAL) and details of those substances considered to be acceptable are enclosed (LIST C).

CUBA

La República de Cuba manifesta su conformidad con las listas circuladas de cargas anteriores aceptables y de cargas inmediatamente anteriores prohibidas

The Republic of Cuba expresses its agreement with the lists of previous acceptable cargoes and banned previous cargoes which have been circulated .

MEXICO

LISTA DE CARGAS ANTERIORES ACEPTABLES PARA EL TRANSPORTE DE ACEITES Y GRASAS COMESTIBLES REFINADAS

1. - Condiciones generales de los tanques o cisternas

1.1 Material de construcción preferentemente acero inoxidable; si son de acero al carbón, con recubrimientos tipo epóxico o similar, grado alimenticio.

1.2 Limpieza: antes de cargar el producto debe asegurarse que los tanques o cisternas de transporte estén vacíos y limpios y secos.

2. - Carga anterior

I – Aceites vegetales comestibles refinados
II – Grasas animales comestibles refinados
III – Bebidas alcohólicas para uso humano
IV – Azúcares o carbohidratos liquidos para consumo humano (glucosa, jarabe de maíz, soluciones de dextrosa, sacarosa y similares)
V – Concentrados de jugos de frutas (manzana, uva, naranja o similares)
VI – Glicerina
VII – Sorbitol

Lista de cargas anteriores aceptables para el transporte de aceites y grasas crudas o que requieran procesos adicionales de refinación

I – Aceites vegetales crudos o refinados
II – Grasas animales comestibles crudas o refinadas (incluyendo aceite de pescado)
III - Bebidas alcohólicas para uso humano
IV – Azúcares o carbohidratos liquidos para consumo humano (glucosa, jarabe de maíz, soluciones de dextrosa, sacarosa y similares)
V – Concentrados de jugos de frutas (manzana, uva, naranja o similares)
VI – Glicerina
VII – Sorbitol
VIII – Acidos grasos
IX – Alcohol etílico
X – Acido acético
XI – Acetona
XII – Esteres metílicos de ácidos grasos
XIII – Alcoholes grasos
XIV – Propilén glicol
XV – Butilén glicol
XVI – Acetato de etilo
XVII – Acido fosfórico
XVIII – Acido fórmico
XIX – Acido láctico
XX – Pentano
XXI – Hexano
XXII – Heptano
XXIII – Acetato de iso-butilo
XXIV – Alcohol iso-propílico

XXV – Alcohol iso-butílico
XXVI – Metil-etil cetona
XXVII – Alcohol metílico (metanol)
XXVIII – Acetato de propilo
XXIX – Soluciones de sosa caústico

Lista de cargas anteriores prohibidas para el transporte de aceites y grasas comestibles refinadas o sin refinar

I – Acido sulfúrico
II – Acido nítrico
III – Aceites o grasas minerales de cualiquier tipo
IV – Aceite de ricino
V – Cianohidrina de acetona (Acetone cyanohydrin) (ACH)
VI – Acriolnitrilo (CAN)
VII – Benceno
VIII – 1,3 Butadieno – (vinylethylene)
IX – Tetracloruro de carbono – (CTC)
X – Cloroformo
XI – Ftalato de dioctilo (DOP)
XII – Difenil metano diisocianato (MDI)
XIII – Epliclоridrina
XIV – Acrilato de etilo
XV – Dibromuro de etileno
XVI – Dicloruro de etileno
XVII – Etilén glicol
XVIII – 2-butoxiestanol
XIX – Oxido de etileno (EO)
XX – Formaldehido
XXI – Cloruro de metileno
XXII – Di-isocianato de metileno
XXIII – 2-nitropropano (y mezclas)
XXIV – Percloroetileno
XXV – Polimetileno polifenilisocianato (PAPI)
XXVI – Oxido de propileno
XXVII – 1,3 dicloro propeno
XXVIII – Tolueno
XXIX – Di-isocianato de tolueno
XXX – Orto toluidina
XXXI – Aceite para transformadores
XXXII – Tricloro etano
XXXIII – Trietilén glicol
XXXIV – Orto, meta y para xileno
XXXV – Hidrocarburos y gasolina con contenido de plomo

English version

1.- General conditions applicable to tanks and containers
1.1 Construction material: preferably stainless steel; mild steel should be coated with epoxy resin or similar material, food grade.
1.2 Cleaning; before loading the product, care should be taken to check that tanks and containers are empty, clean and dry.

2.-Previous cargoes

I – Edible refined vegetable oils
II – Edible refined animal fats
III – Alcoholic drinks for human consumption
IV – Sugars or liquid carbohydrates for human consumption (glucose, corn (maize) syrup, dextrose, saccharose or similar solutions)
V – Fruit juice concentrates (apple, grape, orange or similar products)
VI – Glycerine
VII – Sorbitol

List of acceptable acceptable previous cargoes for the transport of crude fats and oils or those requiring additional refining

I – Edible refined vegetable oils
II – Edible refined animal fats (including fish oils)
III – Alcoholic drinks for human consumption
IV – Sugars or liquid carbohydrates for human consumption (glucose, corn (maize) syrup, dextrose, saccharose or similar solutions)
V – Fruit juice concentrates (apple, grape, orange or similar products)
VI – Glycerine
VII – Sorbitol
VIII – Fatty acids
IX – Ethanol
X – Acetic Acid
XI – Acetone
XII – Methyl esters of fatty acids
XIII – Fatty Alcohols
XIV – Propylene Glycol
XV – Butylene Glycol
XVI – Ethyl Acetate
XVII – Formic Acid
XIX – Lactic Acid
XX – Pentane
XXI – Hexane
XXII – Heptane
XXIII – Iso-butyl Acetate
XXIV – Iso-propyl Alcohol
XXV – Iso-butyl Alcohol
XXVI – Methyl-ethyl Cetone
XXVII – Methanol
XXVIII – Propyl Acetate
XXIX – Caustic soda solutions

List of banned previous cargoes for the transport of refined or crude fats and oils

I – Sulphuric Acid
II – Nitric Acid
III – Mineral fats and oils of any type
IV – Castor oil
V – Acetone cyanohydrin (ACH)
VI – Acrylonitrile (CAN)
VII – Benzene

VIII – 1,3 Butadiene – (vinylethylene)
IX – Carbone Tetrachloride – (CTC)
X – Chloroform
XI – Dioctyl Phtalate (DOP)
XII – Methane Diphenyl Diisocyanate (MDI)
XIII – Eplichlorhydrine
XIV – Ethyl Acrylate
XV – Ethylene Dibromide
XVI – Ethylene Dichloride
XVII – Ethylene Glycol
XVII – 2-Butoxyestanol
XIX – Ethylene Oxide (EO)
XX – Formaldehyde
XXI – Methylene Chloride
XXII – Methylene Di-isocyanate
XXIII – 2-Nitropropane (and mixtures)
XXIV – Perchloroethylene
XXV – Polymethylene Polyphenylisocyanate (PAPI)
XXVI – Propylene Oxide
XXVII – 1,3 Dichloro Propene
XXVIII – Toluene
XXIX – Toluene Di-isothiocyanate
XXX – Orthotoluidine
XXXI – Oils for processing
XXXII – Trichloroethane
XXXIII – Triethylene Glycol
XXXIV – Ortho, meta and para Xylene
XXXV – Hydrocarbons and gasoline which contain lead

ASEAN VEGETABLE OILS CLUB

The ASEAN Vegetable Oils Club wishes to propose that the attached List of Banned Immediate Previous Cargoes (FOSFA – see LIST A), Unacceptable Prior Cargo List (NIOP – see LIST B), Acceptable Prior Cargo Lists (NIOP – see LIST E) and FOSFA International List of Acceptable Previous Cargoes (see LIST G) be included in the Revised Recommended Code of Practice for the Storage and Transport of Edible Oils and Fats in Bulk. These lists are currently adopted by international trade.

FOSFA INTERNATIONAL

In response to the FAO/WHO's request for comments and information (CL 1999/3 - FO March 1999) in respect of the Proposed Draft Lists of Acceptable Previous' Cargoes and of Banned Immediate Previous Cargoes for consideration by CCFO for inclusion in the Code of Practice, the Federation, as an active participant in the revision process of this Code, sets out its proposals below.

Draft list of banned immediate last cargoes

The Federation puts before the Committee, via the Secretariat, its own widely acknowledged and used List of Banned Immediate Previous Cargoes (see LIST A).

FOSFA International developed the Banned List (previous cargo) concept in 1988 as a means of controlling and eliminating cases of contamination of edible vegetable oils and fats, by the previous cargo contained in ships' tanks prior to the carriage of these vegetable oil cargoes.

Over the past ten years the List has periodically been updated and issued to the trade. Banned List trading terms form an integral part of contracts entered into between buyers and sellers worldwide. Some 80% - 85% of the world's oils and fats trade is carried out on FOSFA contract terms, of which between 40% - 60% is employing Banned List criteria. It is the basic benchmark to debar substances known to be detrimental to edible vegetable oils and fats (and a threat to health) carried typically in the same deep tank vessels/parcel tankers.

The Banned List was developed by those commercial partners involved in the trade, based upon independent scientific evaluation. The List remains under constant review and the responsibility of this lies with the Federation's scientific advisers, long standing technical experts from the oils and fats industry.

Additionally, many national and international associations supporting the oils and fats trade and industry acknowledge the FOSFA Banned List, the National Institute of Oilseed Products (US trade) having a complimentary List referred to as the NIOP Unacceptable List.

Draft list of acceptable previous cargoes

Extending the protocol and work programme undertaken by the Federation prior to the 16th CCFO meeting in London in March we put forward for consideration a draft Intentional List of Acceptable Previous Cargoes (LIST D).

FOSFA's own List of Acceptable Previous Cargoes dates back to 1990 when European Receivers sought to take steps beyond the Banned List concept and encouraged FOSFA to introduce a ‘positive’ previous cargo list.

Once again the Federation maintains a review process and periodically updates its List of Acceptable Previous Cargoes. It reflects scientifically evaluated substances deemed compatible as previous cargoes to the carriage of edible oils and fats. In the main these substances are foodstuffs, food additives or food processing agents (JECFA approved) or otherwise compatible with oils and fats carried in bulk. Minor variances exist between the EU generated List of Acceptable Previous Cargoes supporting the EU Directive 96/3/EC dated 27 January 1996 and the current FOSFA List due to marginally narrower criteria applied by the Contaminants Working Group (DG XXIV) responsible for the scientific approval of the List in support of the EU's Food Hygiene Directive 93/43/EEC, issued by the EC in 1993. FOSFA has also issued updated Lists in-between times, the EU process still reviewing additional substances.

Irrespective of these minor variances, which can in themselves cause uncertainties to the trade (and be a potential for errors and trade disputes), FOSFA can claim a contamination free record by its application of the Banned and Acceptable List concepts since 1993.

The Draft International List of Acceptable Previous Cargoes proposed for Codex purposes has its origins in, initially a joint FOSFA/NIOP List of Acceptable Previous Cargoes issued to the global trade in 1994 and subsequently drafted/updated prior to CCFO's meeting in March 1999 reflecting a fully harmonised FOSFA/NIOP Acceptable List, reflecting some 90% of the world trade conducted on Acceptable List terms. The draft document was tabled at the March meeting but not considered in any detail, the Committee electing to address the policy issue of whether or not to rely upon references within the Code's Bibliography or develop its own Lists.

The attached draft includes a minor amendment, altering the CAS Number of Ammonium Polyphosphate from 10124-31-9 to 68333-79-9; it having been pointed out that the former referred to Ammonium Phosphate, a FOSFA/NIOP non-recognised previous cargo.

We would encourage the adoption of these proposed Lists by the CCFO, in the process acknowledging their wide application in world markets, and are otherwise happy to share technical information to justify inclusion of substances on the respective Lists, as necessary.

NATIONAL INSTITUTE OF OILSEED PRODUCTS

In 1989, the National Institute of Oilseed Products (NIOP) established prior cargo lists to assist commercial parties trading, transporting and storing edible fats and oils in maintaining the integrity and purity of these fats and oils. Commercial interests trading under NIOP trading rules follow these lists, and those who trade under the rules (contracts) of other organizations frequently use these lists as a reference source. In all cases, the utilization of these lists along with NIOP recommended cleaning, inspection and handling procedures have served over the past decade to eliminate contamination incidents.

The NIOP prior cargo lists are three in number:

Acceptable Prior Cargo List No.1; Acceptable Prior Cargo List No.2; and Unacceptable Prior Cargo List

Acceptable List No. 1 includes substances that are acceptable immediate past prior cargoes for transported edible fats and oils which may or may not be further processed prior to use.

Acceptable List No. 2 are items that are acceptable immediate past prior cargoes for transported edible fats and oils which will undergo further processing.

The Unacceptable Prior Cargo List includes those items that may not be carried as the last immediate cargo prior to the transport of edible fats and oils.

Any substance not listed on one of the three lists is unacceptable.

The process used to determine the appropriate listing of a substance on these lists is a petition procedure involving a rigorous assessment of the substance with respect to chemical identity, carcinogenicity, toxicity, analyzability and removability.

The NIOP submits its prior cargo lists (LIST E). Substances contained on the NIOP lists are expressed in terms of "specific identity" -- a policy established in 1987, prior to the introduction of the lists as a trading rule. This becomes a contractual requirement at the time of buying/selling edible fats and oils that will be transported in bulk.

The NIOP wishes to emphasize that these prior cargo lists are most effective when followed in conjunction with recommended cleaning, inspection and handling guidelines, beginning on page 190 of the NIOP Trading Rules.

For many years, NIOP has worked closely with the Federation of Oils, Seeds and Fats Association (FOSFA) on the development of a joint acceptable prior cargo list. A harmonized "International List of Acceptable Previous Cargoes" was agreed between NIOP and FOSFA, and was submitted to the Codex Committee on Fats and Oils during the CCFO meetings of 08-12, March 1999. Both organizations worked diligently to produce the harmonized list.

Modifications to the International List were agreed between NIOP and FOSFA since those March meetings. FOSFA forwarded a copy of their version of the List to the Joint FAO/WHO Secretariat in September, 1999. The NIOP List (LIST F) contains more substances due to the "Specific Identity" criteria, noted above.

We strongly encourage the Codex to consider the NIOP lists and recommended cleaning, inspection and handling guidelines as a starting point for any CCFO Proposed Code/Document addressing previous cargo lists. NIOP stands ready to assist the Codex Committee on Fats and Oils through the U.S. delegation as it addresses this subject.

LIST A

FOSFA INTERNATIONAL LIST OF BANNED IMMEDIATE PREVIOUS CARGOES

Discussion Document (Proposal) for the CODEX Committee on Fats and Oils emanating from the 16th Session meeting held in London, United Kingdom, 8-12 March 1999, relating to the Revised Code of Practice for the Storage and Transport of Edible Oils and Fats in Bulk, endorsed by Codex Alimentarius Committee at Step 8 at its 23rd Session 28 June - 3 July 1999.

Prepared by the Federation of Oils, Seeds and Fats Associations Limited (FOSFA International), reflecting its widely acknowledged FOSFA List of Banned Immediate Previous Cargoes.

Name of substance	**CAS number**
Acetone cyanohydrin (Alpha-hydroxyisobutyronitrile; 2-Methyllactonitrile)	75-86-5
Acrylic acid (Acroleic acid; Propenoic acid)	79-10-7
Acrylonitrile (2-Propenenitrile; Vinyl cyanide)	107-13-1
Adiponitrile (1-4 Dicyanobutane)	111-69-3
Aniline (Phenylamine; Aminobenzene)	62-53-3
Butylacrylate (n- and tert -)	141-32-2, 1663-39-4
Carbon tetrachloride (Tetrachloromethane; Perchloromethane)	56-23-5
Cardura E (Tradename for a glycidyl esters of versatic 911 acid)	11120-34-6
Cashew nut shell oil (Cashew nut shell liquid)	8007-24-7
Dibutylamine	111-92-2
Diethanolamine (DEA; di-2-Hydroxyethylamine)	111-42-2
Diethylenetriamine	111-40-2
Di-isopropylamine	110-97-4
Dipropylamine	108-18-9
m-Divinylbenzene (DVB; Vinyl styrene)	1324-74-0
Epichlorohydrin (Chloropropylene oxide; EPI)	106-89-8
Epoxy resins (uncured)	----
Ethyl acrylate	140-88-5
*Ethylene dichloride	107-06-2
2-Ethylhexyl acrylate	103-11-7
Ethanolamine (MEA; Monoethanolamine; Colamine; 2-Aminoethanol; 2-Hydroxyethylamine)	141-43-5
Ethylenediamine (1,2 Diaminoethane)	107-15-3
Furfuryl alcohol (Furyl carbinol)	98-00-0
Glutaraldehyde	111-30-8
Hexamethylenediamine (1,6-Diaminohexane; 1,6-Hexanediamine)	124-09-4
Isocyanates	
(These include -	
Toluene di-isocyanate (TDI)	1321-38-6
Polyphenyl polymethylene isocyanate (PAPI, PMPPI)	9016-87-9
Di-phenyl methane di-isocyanate	101-68-8
Methyl isocyanate	624-83-9
Lube oil additives	---
Methyl acrylate	96-33-3

Name of substance	CAS number
Methyl methacrylate monomer	80-62-6
Methyl styrene monomer (Vinyl toluene)	25013-15-4
α Methyl styrene monomer (AMS)	98-83-9
ρ Methyl styrene monomer (PMS)	622-97-9
Morpholine	110-91-8
Morpholine ethanol (N-hydroxyethyl morpholine)	622-40-2
Nitric acid (Aqua fortis; Engravers acid; Azotic acid)	7697-37-2
Phthalates	
(These include -	
Di-octyl phthalate (DOP)	117-84-0
Di-isooctyl phthalate (DIOP)	27554-26-3
Di-isononyl phthalate (DINP)	68515-48-0
Di-isodecyl phthalate (DIDP)	19269-67-1
Di-allyl phthalate (DAP)	131-17-9
n-Propylamine	622-80-0
Propylene oxide (Methyl oxirane; 1.2 Epoxypropane)	75-56-9
Pyridine	110-86-1
**Styrene monomer (Vinyl benzene; Phenyl ethylene; Cinnamene)	100-42-5
Tall oil	8002-26-4
Tall oil fatty acid equivalent to ASTM TYPE Ill	61790-12-3
Transformer oils of PCB type (e.g. Trichlorobiphenyl)	25323-29-2
Vinyl chloride monomer	75-01-4
Vinylacetate monomer	05-4

Leaded products shall not be carried as the three previous cargoes.

* Ethylene dichloride is banned as any one of the last two cargoes in organically coated tanks and as the last cargo in stainless steel and inorganically coated tanks.

** Styrene monomer is banned as any one of the last two cargoes in organically coated tanks and as the last cargo in stainless steel and inorganically coated tanks.

LIST B

NATIONAL INSTITUTE OF OILSEED PRODUCTS (NIOP) UNACCEPTABLE PRIOR CARGO LIST

These substances have been proven to be highly toxic and/or carcinogenic. They may not be carried as the last cargo immediately prior to edible oils:

Cargo common name

Acetone cyanohydrin - (ACH)
Acrylonitrile - (ACN)
Benzene
1,3-Butadiene - (vinylethylene)
Butyl acrylate (n- and tert-)
Carbon tetrachloride - (CTC)
Cashew nutshell liquid - (CNSL)
Chloroform - (TCM)
Cresol (o,m,p,) - (cresylic acid)
Diethanolamine - (DEA)
Diglycidylether of bisphenol A
Dioctyl phthalate - (DOP)
Diphenyl methane diisocyanate - (MDI)
Epichlorohydrin
Ethyl acrylate
Ethylene dibromide - (EDB); (1,2-dibromoethane); (ethylene bromide)
Ethylene dichioride - (EDC); (1,2-dichloroethane); (ethylene chloride)
Ethylene glycol - (MEG); (monoethylene glycol)
Ethylene glycol monobutyl ether - (2- butoxyethanol)
Ethylene oxide - (E0)
Formaldehyde
* Leaded petroleum or other leaded products
Methyl acrylate
Methyl methacrylate
Methylene chloride - (MEC); (dichloromethane); (methylene dichloride)
Methylene diisocyanate - (diisocyanatomethane)
Monoethylene glycol - (MEG); (ethylene glycol)
Nitropropane (1- and 2- isomers and mixtures)
Perchloroethylene - (PEC)
Polymethylene polyphenylisocyanate - (PAPI)
Propylene oxide
Styrene monomer
Tall oil (crude)
Tall oil fatty acid (ASTM type III)
Telone II - (1-propene, 1 3-dichloro); (1,3-dichloropropene)
Toluene
Toluene diisocyanate - (TDI) (2,4- and 2,6- isomers)

Cargo common name

Toluidine (ortho)
Transformer oil
Trichloroethane (1,1,1- and 1,1,2-isomers)
Triethylene glycol – (TEG)
Vinyl acetate monomer – (VAM)
Xylene (ortho, meta, para)

* The provisions of NIOP TRADING RULES, including RULE 1.3.1(b), RULE 1.4, RULE 1.5.2(b), RULE 1.2.6(b) and RULE 1.9 are not superseded by this RULE. The "last cargo" restriction is not applicable to leaded petroleum or other leaded products. Provisions contained in the above cited RULES include and provide for a signed statement that the vessel's tank receiving the vegetable oil has not contained any leaded petroleum or other leaded product on at least the last three (3) prior cargoes carried.

LIST C

LIST OF PREVIOUS CARGOES CONSIDERED ACCEPTABLE BY THE EUROPEAN COMMISSION'S SCIENTIFIC COMMITTEE FOR FOOD

Substance	**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 vegetable oils and fats and/or mixtures thereof and animal and marine fats and oils	
Ammonium hydroxide (ammonium hydrate; ammonia solution; aqua ammonia)	1336-21-6
Ammonium polyphosphate	101124-31-9
Animal, marine and vegetable and hydrogenated oils and fats (other than cashew shell nut and tall oil)	
Beeswax (white and yellow)	8006-40-4 8012-89-3
Benzyl alcohol (pharmaceutical and reagent grades only)	100-51-6
Butyl acetates:	
n-Butyl acetate	123-86-4
sec-Butyl acetate	105-46-4
tert-Buty] acetate	540-88-5
Calcium chloride solution (is acceptable as a previous cargo only where the immediate previous cargo to it is on this list and is not similarly restricted)	10043-52-4
Calcium lignosulphonate	8061-52-7
Candelilla wax	8006-44-8
Carnauba wax (Brazil wax)	8015-86-9
Cyclohexane (hexamethylene; hexanaphthene; hexahydrobenzene)	110-82-7
Epoxidised soyabean oil (with a maximum 8% oxirane oxygen content)	8013-07-8
Ethanol (ethyl alcohol)	64-17-5
Ethyl acetate (acetic ether; acetic ester; vinegar naphtha)	141-78-6
2-Ethylhexanol (2-ethylhexyl alcohol)	104-76-7
Fatty acids:	
Butyric acid (n-butyric acid; butanoic acid; ethyl acetic acid; propyl formic acid)	107-92-6
Valeric acid (n-pentanoic acid; valerianic acid)	109-52-4
Caproic acid (n-hexanoic acid)	142-62-1
Heptoic acid (n-heptanoic acid)	111-14-8
Caprylic acid (n-octanoic acid)	124-07-2
Pelargonic acid (n-nonanoic acid)	112-05-0
Capric acid (n-decanoic acid)	334-48-5
Lauric acid (n-dodecanoic acid)	143-07-7
Lauroleic acid (dodecenoic acid)	4998-71-4
Myristic acid (n-tetradecanoic acid)	544-63-8
Myristoleic acid (n-tetradecenoic acid)	544-64-9
Palmitic acid (n-hexadecanoic acid)	57-10-3
Palmitoleic acid (cis-9-hexadecenoic acid)	373-49-9

Substance	CAS Number
Stearic acid (n-octadecanoic acid)	57-11-4
Ricinoleic acid (cis 12-hydroxy octadec-9-enoic acid; castor oil acid)	141-22-0
Oleic acid (n-octadecenoic acid)	112-80-1
Linoleic acid (9,12-ooctadecadienoic acid)	60-33-3
Linolenic acid (9,12,15-octadecatrienoic acid)	28290-79-1 463-40-1
Arachidic acid (eicosanoic acid)	506-30-9
Behenic acid (docosanoic acid)	112-85-6
Erucic acid (cis 13-docosenoic acid)	112-86-7
Fatty alcohols: Butyl alcohol (1-butanol; butyric alcohol) Caproyl alcohol (1-hexanol; hexyl alcohol) Enanthyl alcohol (1-heptanol; heptyl alcohol) Capryl alcohol (1 n-octanol) Nonyl alcohol (1-nonanol; pelargonic alcohol; octyl carbinol) Decyl alcohol (1-decanol) Lauryl alcohol (n-dodecanol; dodecyl alcohol) Tridecyl alcohol (1-tridecanol) Myristy] alcohol (1-tetradecanol; tetradecanol) Cetyl alcohol (alcohol C-16; 1-hexadecanol; cetylic alcohol; palmityl alcohol; n-primary hexadecyl alcohol) Steary] alcohol (1-octadecanol) Oleyl alcohol (octadecenol) Lauryl myristyl alcohol (C12-C14 blend) Cetyl stearyl alcohol (C I 6-C18 blend)	 71-36-3 111-27-3 111-70-6 111-87-5 143-08-8 112-30-1 112-53-8 112-70-9 112-72-1 36653-82-4 112-92-5 143-28-2
Fatty acid esters (any ester produced by the combination of any of the above listed fatty acids with any of the above listed fatty alcohols. Examples of these are butyl myristrate, oleyl palmitate and cetyl stearate)	
Formic acid (methanoic acid; hydrogen carboxylic acid)	64-18-6
Glycerol (glycerine; glycerin)	56-81-5
Glycols: Butanediol 1,3-Butanediol (1,3-butylene glycol) 1,4-Butanediol (1,4-butylene glycol) Polypropylene glycol (molecular weight greater than 400) Propylene glycol (1,2-propylene glycol; propan-1,2-diol; 1.2-dihydroxypropane; monopropylene glycol (MPG); methyl glycol)	 107-88-0 110-63-4 25322-69-4 57-55-6
n-Heptane -	142-82-5
Hexane (technical grades for oils seed extraction)	110-54-3 64742-49-0
iso-Buty] acetate	110-19-0
* iso-Decanol (isodecyl alcohol)	25339-17-7
* iso-Nonanol (isononyl alcohol)	27458-94-2
* iso-Octanol (isooctyl alcohol)	26952-21-6

Substance	CAS Number
iso-Propanol (isopropyl alcohol; IPA)	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)	78-93-3
Methyl isobutyl ketone (4-methyl-2-pentanone)	108-10-1
* Methyl tertiary butyl ether (MTBE)	1634-04-4
Molasses	57-50-1
* Montan wax	8002-53-7
* Paraffin wax (petroleum wax)	8002-74-2 63231-60-7
n-Pentane-	109-66-0
Phosphoric acid (ortho phosphoric Acid)	7664-38-2
Potable water is acceptable as a previous cargo only where the immediate previous cargo to it is on this list, and is not similarly restricted.	
Potassium hydroxide (caustic potash) is acceptable as a previous cargo only where the immediate previous cargo to it is on this list and is not similarly restricted.	1310-58-3
Propane-1-ol (propyl alcohol; l-propanol)	71-23-8
n-Propyl acetate	109-60-4
Propylene tetramer	6842-15-5
Silicon dioxide (microsilica)	7631-86-9
Sodium hydroxide (caustic soda, lye) is acceptable as a previous cargo only where the immediate previous cargo to it is on this list and is not similarly restricted.	1310-73-2
Sodium silicate (water glass)	1344-09-8
Sorbitol (D-sorbitol; hexahydric alcohol; D-sorbite)	50-70-4
Sulphuric acid	7664-93-9
Urea ammonia nitrate solution (UAN)	Blend of 57-13-6 (urea) & 6484-52-2 (ammonium nitrate)
* White mineral oil	8042-47-5
Wine lees (vinasses, vinaccia, argol, vini, argil arcilla, weinstein, crude cream of tartare, crude potassium bitartrate)	868-14-4

* = provisionally accepted

LIST D

FOSFA INTERNATIONAL VERSION OF THE JOINT FOSFA/NIOP INTERNATIONAL LIST OF ACCEPTABLE PREVIOUS CARGOES

Discussion Document (Proposal) for the CODEX Committee on Fats and Oils emanating from the 16th Session meeting held in London, United Kingdom, 8-12 March 1999, relating to the Revised Code of Practice for the Storage and Transport of Edible Oils and Fats in Bulk, endorsed by Codex Alimentarius Committee at Step 8 at its 23rd Session 28 June - 3 July 1999.

Prepared by the Federation of Oils, Seeds and Fats Associations Limited (FOSFA International) and the National Institute of Oilseed Products (NIOP), reflecting a harmonisation of both Industry representative bodies' Acceptable Previous Cargoes Lists.

Name of substance	**CAS number**
Acetic acid	64-19-7
Acetic anhydride	108-24-7
Acetone	67-64-1
Acid oils & fatty acid distillates derived from animal, marine and vegetable oils and fats	
Ammonium hydroxide	1336-21-6
Ammonium polyphosphate	68333-79-9
Animal, marine and vegetable (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, (NF & reagent grades)	100-51-6
Beverages, alcoholic and non alcoholic	
1,3-Butanediol	107-88-0
1,4-Butanediol	110-63-4
2,3-Butanediol	513-85-9
Butyl acetate, n-	123-86-4
Butyl acetate, sec-	105-46-4
Butyl acetate, tert-	540-88-5
Butyl myristate	110-36-1
Calcium ammonium nitrate solution	6484-52-2
Calcium chloride solution	10043-52-4
Calcium lignosulfonate liquid	8061-52-7
Calcium nitrate (CN-9) solution	35054-52-5
Candelilla wax	8006-44-8
Carnauba wax	8015-86-9
Cetyl stearate	1190-63-2
Cyclohexane	110-82-7
Cyclohexanol	108-93-0
Cyclohexanone	108-94-1
Dairy produce	
Epoxidised soyabean oil (minimum 7% oxirane oxygen content)	8013-07-8
Ethanol	64-17-5

Name of substance	CAS number
Ethyl acetate	141-78-6
2-Ethylhexanol	104-76-7
Fatty acids	
Arachidic acid	506-30-9
Behenic acid	112-85-6
Butyric acid	107-92-6
Capric acid	334-48-5
Caproic acid	142-62-1
Caprylic acid	124-07-2
Erucic acid	112-86-7
Heptoic acid	111-14-8
Lauric acid	143-07-7
Lauroleic acid	4998-71-4
Linoleic acid	60-33-3
Linolenic acid	463-40-1
Myristic acid	544-63-8
Myristoleic acid	544-64-9
Oleic acid	112-80-1
Palmitic acid	57-10-3
Palmitoleic acid	373-49-9
Pelargonic acid	112-05-0
Ricinoleic acid	141-22-0
Stearic acid	57-11-4
Valeric acid	109-52-4
Fatty alcohols:	
Butyl alcohol	71-36-3
Iso butyl alcohol	78-83-1
Caproyl alcohol	111-27-3
Capryl alcohol	111-87-5
Cetyl alcohol	36653-82-4
Coconut oil fatty alcohols	
Decyl alcohol	112-30-1
Iso decyl alcohol	25339-17-7
Enanthyl alcohol	111-70-6
Lauryl alcohol	112-53-8
Myristyl alcohol	112-72-1
Nonyl alcohol	143-08-8
Iso nonyl alcohol	27458-94-2
Oleyl alcohol	143-28-2
Palm oil fatty alcohols	
Palm kernel fatty alcohols	
Stearyl alcohol	112-92-5
Tallow fatty alcohols	
Tridecyl alcohol	27458-92-0
Fatty acid esters (combination of any of the above listed fatty acids with any of the above listed fatty alcohols) - examples being:	
Butyl myristate	110-36-1
Cetyl stearate	110-63-2
Oleyl palmitate	2906-55-0

Name of substance	CAS number
Fatty acid methyl esters (methyl esters of fatty acids) - examples being	
Methyl laurate	111-82-0
Methyl oleate	112-62-9
Methyl palmitate	112-39-0
Methyl stearate	112-61-8
Fatty alcohol blends:	
Cetyl stearyl alcohol (C16-C18)	67762-27-0
Hexadecanol combination	36653-82-4
Lauryl myristyl alcohol (C12-C14)	
Formic acid	64-18-6
Glycerine	56-81-5
Heptane	142-82-5
n-Hexane	110-54-3
Hexane (technical)	64742-49-0
Iso butyl acetate	110-19-0
Iso octyl alcohol	26952-21-6
Iso propyl alcohol	67-63-0
Kaolin slurry	1332-58-7
Lactic acid (limited)	598-82-3
Limonene	138-86-3
Magnesium chloride solution	7786-30-3
Methanol	67-56-1
Methyl ethyl ketone	78-93-3
Methyl iso butyl ketone	108-10-1
Methyl tertiary butyl ether	1634-04-4
Molasses	57-50-1
Montan wax	8002-53-7
Nonane	111-84-2
Oleyl palmitate	2906-55-0
Pentane	109-66-0
Petroleum wax, (edible)	8002-74-2
Phosphoric acid	7664-38-2
Polypropylene glycol	25322-69-4
Potassium hydroxide solution	1310-58-3
Propyl acetate	109-60-4
Propyl alcohol	71-23-8
Propylene glycol, 1,2-	57-55-6
Propylene glycol, 1,3-	504-63-2
Propylene tetramer	6842-15-5
Silicon dioxide	7631-86-9
Sodium hydroxide solution	1310-73-2
Sodium silicate	1344-09-8
Sorbitol	50-70-4
Sulphuric acid	7664-93-9
Tall oil fatty acids, ASTM I and II	61780-12-3

Name of substance	CAS number
Urea ammonium nitrate solution	
Water (potable) *	7732-18-5
White mineral oils	8042-47-5
Wine lees	868-14-4

* Acceptable only where the immediate previous cargo to it is on the list of Acceptable Previous Cargoes

LIST E

NIOP NATIONAL INSTITUTE OF OILSEED PRODUCTS PRIOR CARGO LISTINGS

ACCEPTABLE PRIOR CARGO - LIST NO. 1

The following items are acceptable prior cargoes for transported edible oils which may or may not be further processed prior to use:

Cargo common name

Alcoholic beverages (i.e. rum, wine)
Almond oil
Anchovy oil
Apple juice concentrate
Apricot kernel oil
Avocado oil
Babassu oil
Beechnut oil
Beeswax
Candelilla wax
Canola oil - LEAR ("double zero")
Carnauba wax
Castor oil
Cocoa butter
Coconut oil
Cod liver oil
Cod oil
Cohune oil
Com oil - (maize oil)
Corn syrup
Cottonseed oil
Dairy products (limited per USA 21CFR, Part 131)
Dextrose solution
Fish liver oil
Fish oil
Glucose syrup
Glycerin
Grape juice concentrate
Grapeseed oil
Hazelnut oil
Herring oil
Illipe butter - (mowrah butter)
Juice concentrates (i.e. apple, grape)
Lactic acid (limited)
Lard, edible
Linseed oil
Lycopersicum esculentum oil - (tomato seed oil)

Cargo common name

Menhaden oil
Molasses
Montan wax
Murumuru fat
Mustard seed oil
Nutmeg butter
Olive oil
Orange juice slurry
Palm kernel oil
Palm kernel olein
Palm kernel stearin
Palm oil
Palm oil mid-fractions
Palm olein
Palm stearin
Peanut oil - (groundnut oil); (GNO)
Pilchard oil
Poppyseed oil
Rapeseed oil - (HEAR)
Rapeseed oil - (LEAR) ("double zero")
Rapeseed oil - (LEAR) ('single zero')
Rapeseed oil (hydrogenated)
Rice bran oil
Safflower oil
Sal fat
Sardine oil
Sesame oil
Shark oil
Shea oil - (shea butter)
Sorbitol
Soybean oil
Sunflower oil
Tallow (edible)
Teaseed oil
Tucum oil
Vegetable ghee (made from vegetable oils on this list)
Walnut oil
Water, potable (Acceptable only when immediately following a prior cargo on this LIST)

ACCEPTABLE PRIOR CARGO - LIST NO. 2

Acceptable prior cargoes for edible oils which will undergo further processing:

Cargo common name

Acetic acid
Acetic anhydride
Acetone
Ammonium hydroxide
Ammonium polyphosphate
Benzyl alcohol - (NF and Reagent grades only)
Butanediol - (see glycols)
Butylene glycol - (see glycols)
Butyl acetates - (n-, sec-, & tert-)
Calcium ammonium nitrate (CAN-17) solution
Calcium chloride solution
Calcium lignosulfonate liquid - (lignin liquor); (sulphite lye)
Calcium nitrate (CN-9) solution
Coconut acid oil - (CAO); (acidulated coconut oil soapstock)
Coconut oil fatty acid methyl esters
Coconut oil fatty acids
Coconut oil fatty alcohols
Cottonseed acid oil
Cottonseed oil fatty acid
Cyclohexane
Cyclohexanol
Cyclohexanone
Ethanol - (ethyl alcohol)
Ethyl acetate - (EA)
2-Ethylhexyl alcohol - (2-ethy] hexanol)

Fatty acids:

Common name		**Systematic/chemical name**
Butyric acid	C-4	Butanoic acid
Valeric acid	C-5	Pentanoic acid
Caproic acid	C-6	Hexanoic acid
Heptoic acid	C-7	Heptanoic acid
Caprylic acid	C-8	Octanoic acid
Pelargonic acid	C-9	Nonanoic acid
Capric acid	C-10	Decanoic acid
Lauric acid	C-12	Dodecanoic acid
Lauroleic acid	C-12 ^{I}	Dodecenoic acid
Myristic acid	C-14	Tetradecanoic acid
Myristoleic acid	C-14 ^{I}	Tetradecenoic acid
Palmitic acid	C-16	Hexadecanoic acid
Palmitoleic acid	C-16 ^{I}	Hexadecenoic acid

Cargo common name		
Stearic acid	C-18	Octadecanoic acid
Ricinoleic acid	C-18 [I]	Hydroxy-9-octadecenoic acid
Oleic acid	C-18 [I]	Octadecenoic acid
Linoleic acid	C-18 [II]	Octadecadienoic acid
Linolenic acid	C-18 [III]	Octadecatrienoic acid
Arachidic acid	C-20	Eicosanoic acid
Behenic acid	C-22	Docosanoic acid
Erucic acid	C-22 [I]	Docosenoic acid

Fatty acid esters - (An ester produced by the combination of any of the listed fatty acids with any of the listed fatty alcohols) Examples include:

Butyl myristate
Cetyl stearate
Oley] palmitate

Fatty acid methyl esters - (methyl esters of fatty acids) Examples include:

		Chemical name
Methyl laurate	C-12	Methyl dodecanoate
Methyl palmitate	C-16	Methyl hexadecanoate
Methyl stearate	C-18	Methyl octadecanoate
Methyl oleate	C-18 [I]	Methyl octadecenoate

Fattty alcohols - (Natural alcohols):

Common name		**Systematic**	**Other**
Butyl alcohol	C-4	1-Butanol	Butyric alcohol
Capryl alcohol	C-6	1-Hexanol	Hexyl alcohol
Enanthyl alcohol	C-7	1–Heptanol	Heptyl alcohol
Capryl alcohol	C-8	1-n-Octanol	Octyl alcohol
Nonyl alcohol	C-9	Nonanol	Pelargonic alcohol
Decyl alcohol	C-10	1-Decanol	
Lauryl alcohol	C-12	n-Dodecanol	Dodecyl alcohol
Tridecyl alcohol	C-13	1-Tridecanol	
Myristyl alcohol	C-14	1-Tetradecanol	
Cetyl alcohol	C-16	1-Hexadecanol	Cetylic alcohol
			Palmityl alcohol
Stearyl alcohol	C-18	1-Octadecanol	
Oleyl alcohol	C-18 [I]	Octadecenol	

Lauryl myristyl alcohol	(C12-C14) - (blend)
Cetyl stearyl alcohol	(C16-C18) - (blend)
Hexadecanol combination	(C16-C18) - (blend of natural fatty alcohols)

Cargo common name

Glycols:

	Synonyms
Butylene glycol & Butanediol	1,3-butylene glycol; 1,3-butanediol 1,4-butylene glycol; 1,4-butanediol 2,3-butylene glycol; 2,3-butanediol
Polypropylene glycol	PG
Propylene glycol	1,2-propylene glycol; 1,2-propandiol; 1,2-dihydroxypropane; Monopropylene glycol – (MSG)
1,3-Propylene glycol	Trimethylene glycol; 1,3-propanediol

Formic acid
Heptane
Hexane, technical
n-Hexane
* Hydrogen peroxide
Isobutyl acetate
Isobutyl alcohol - (isobutanol)
Isodecyl alcohol - (isodecanol)
Isononyl alcohol - (isononanol)
Isooctyl alcohol - (isooctanol)
Isopropyl alcohol - (isopropanol)
** Kaolin slurry
Limonene - (dipentene)
Magnesium chloride solution
Methanol - (methyl alcohol)
Methyl ethyl ketone - (MEK)
Methyl isobutyl ketone - (MIBK)
Methyl tertiary butyl ether - (MTBE)
* Nitric acid
Nonane (C-9) - (nonyl hydride)
Palm acid oil - (PAO)
Palm fatty acid distillate - (PFAD)
Palm kernel fatty acid distillate - (PKFAD)
Palm kernel oil fatty acid methyl esters
Palm kernel oil fatty acids
Palm kernel oil fatty alcohols
Palm oil fatty acid methyl esters
Palm oil fatty acids
Palm oil fatty alcohols
Pentane
Petroleum wax, edible grade - (petroleum paraffin; paraffin wax)
Phosphoric acid
Polypropylene glycol - (PG) - (see glycols)
Potassium hydroxide solution - (caustic potash solution)

Cargo common name

Propyl acetate
Propyl alcohol - (l-propanol)
Propylene glycol - (MPG) - (see glycols)
Propylene tetramer
Rice bran acid oil
Silicon dioxide
Sodium hydroxide solution - (caustic soda solution)
Sodium silicate
Soybean acid oil
Soybean oil (epoxidized)
Soybean oil fatty acids
Sulphuric acid
* Tall oil fatty acids (ASTM types I and 11 only)
† Tallow (inedible)
Tallow fatty acids
Tallow fatty alcohol
Tung oil
Urea ammonium nitrate solution - (UAN solution)
Water, potable (Acceptable only when immediately following a prior cargo on this LIST)
White mineral oil, USP

* These items do not appear on the NIOP-FOSFA Joint List of Acceptable Previous Cargoes

** Acceptable-provided any future modifications in bactericides are appropriately reviewed.

† The country of origin in which the product is rendered must have standards or certification programs which are designed to preclude toxic or bacterial contamination and the transmission of pathogens including bovine spongiform encephalitis (BSE) by animal products or byproducts

Tallow (inedible) includes the Standard Grades for Tallows and Greases as set forth by Rule 7 of the American Fats and Oils Association (AFOA).

LIST F

NIOP VERSION OF THE JOINT FOSFA/NIOP INTERNATIONAL LIST OF ACCEPTABLE PREVIOUS CARGOES

Discussion Document (Proposal) for the CODEX Committee on Fats and Oils emanating from the 16th Session meeting held in London, United Kingdom, 8-12 March 1999, relating to the REVISED CODE OF PRACTICE FOR THE STORAGE AND TRANSPORT OF EDIBLE OILS AND FATS IN BULK, endorsed by Codex Alimentarius Committee at Step 8 at its 23rd Session 28 June - 3 July 1999.

Prepared by the Federation of Oils, Seeds and Fats Associations Limited (FOSFA International) and the National Institute of oilseed Products (NIOP), reflecting a harmonization of both Industry representative bodies' Acceptable Previous Cargoes Lists.

Trivial Name	CAS Number	Footnote
Acetic acid	64-19-7	**
Acetic anhydride	108-24-7	**
Acetone	67-64-1	**
Alcoholic beverages		*
Alcohol (C14-C16)	68333-80-2	**
Almond oil	8007-69-0	*
Ammonium hydroxide	1336-21-6	**
Ammonium polyphosphate	68333-79-9	**
Anchovy oil		*
Apple juice concentrate		*
Apricot kernel oil		*
Arachidic acid	506-30-9	**
Avocado oil		*
Babassu oil		*
Beechnut oil		*
Beeswax (white)	8006-40-4	*
Beeswax (yellow)	8012-89-3	*
Behenic acid	112-85-6	**
Benzyl alcohol, NF & reagent grades	100-51-6	**
1,3-Butanediol	107-88-0	**
1,4-Butanediol	110-63-4	**
2,3-Butanediol	513-85-9	**
Butyl acetate, n-	123-86-4	**
Butyl acetate, see-	105-46-4	**
Butyl acetate, tert-	540-88-5	**
Butyl alcohol	71-36-3	**
Butyl myristate	110-36-1	**
Butyric acid	107-92-6	**
Calcium ammonium nitrate solution	6484-52-2	**
Calcium chloride solution	10043-52-4	**
Calcium lignosulfonate liquid	8061-52-7	**

Trivial Name	CAS Number	Footnote
Calcium nitrate (CN-9) solution	35054-52-5	**
Candelilla wax	8006-44-8	*
Canola oil (LEAR) ("Double zero")	120962-03-0	*
Capric acid	334-48-5	**
Caproic acid	142-62-1	**
Caproyl alcohol	111-27-3	**
Capryl alcohol	111-87-5	**
Caprylic acid	124-07-2	**
Carnauba wax	8015-86-9	*
Castor oil	8001-79-4	*
Cetyl alcohol	36653-82-4	**
Cetyl stearate	1190-63-2	**
Cetyl stearyl alcohol blend	67762-27-0	**
Cocoa butter	8002-31-1	*
Coconut acid oil		**
Coconut oil	8001-31-8	*
Coconut oil fatty acid methyl ester		**
Coconut oil fatty acids		**
Coconut oil fatty alcohols		**
Cod liver oil	68153-03-7	*
Cod oil	8001-69-2	*
Cohune oil		*
Corn oil	8001-30-7	*
Corn syrup	8029-43-4	*
Cottonseed acid oil		**
Cottonseed oil	8001-29-4	*
Cottonseed oil, fatty acid		**
Cyclohexane	110-82-7	**
Cyclohexanol	108-93-0	**
Cyclohexanone	108-94-1	**
Dairy products (limited)		*
Decyl alcohol	112-30-1	**
Dextrose solution	50-99-7	*
Enanthyl alcohol	111-70-6	**
Erucic acid	112-86-7	**
Ethanol	64-17-5	**
Ethyl acetate	141-78-6	**
2-Ethylhexyl alcohol	104-76-7	**
Fish liver oil	8001-69-2	*
Fish oil	8016-13-5	*
Formic acid	64-18-6	**
Glucose syrup		*
Glycerine	56-81-5	*

Trivial Name	CAS Number	Footnote
Grape juice concentrate		*
Grapeseed oil		*
Hazelnut oil		*
Heptane	142-82-5	**
Heptoic acid	111-14-8	**
Herring oil	68153-06-0	*
Hexadecanol combination	36653-82-4	**
Hexane, n-	110-54-3	**
Hexane (technical)	64742-49-0	**
Illipe butter		*
Isobutyl acetate	110-19-0	**
Isobutyl alcohol	78-83-1	**
Isodecyl alcohol	25339-17-7	**
Isononyl alcohol	27458-94-2	**
Isononyl alcohol (C8-C10)	68526-84-1	**
Isooctyl alcohol	26952-21-6	**
Isopropyl alcohol	67-63-0	**
Kaolin slurry	1332-58-7	** (4)
Lactic acid (Limited)	598-82-3	*
Lard	61789-99-9	*
Lauric acid	143-07-7	**
Lauroleic acid	4998-71-4	**
Lauryl alcohol	112-53-8	**
Lauryl myristyl alcohol blend		**
Linoleic acid	60-33-3	**
Linolenic acid	463-40-1	**
Limonene	138-86-3	**
Linseed oil	8001-26-1	*
Lycopersicum esculentum oil		*
Magnesium chloride solution	7786-30-3	**
Menhaden oil	8002-50-4	*
Methanol	67-56-1	**
Methyl ethyl ketone	78-93-3	**
Methyl isobutyl ketone	108-10-1	**
Methyl laurate	111-82-0	**
Methyl oleate	112-62-9	**
Methyl palmitate	112-39-0	**
Methyl stearate	112-61-8	**
Methyl tertiary butyl ether	1634-04-4	**
Molasses	57-50-1	*
Montan wax	8002-53-7	*
Murumuru fat		*
Mustard seed oil	8007-40-7	*

Trivial Name	CAS Number	Footnote
Myristic acid	544-63-8	**
Myristoleic acid	544-64-9	**
Myristyl alcohol	112-72-1	**
Nonane	111-84-2	**
Nonyl alcohol	143-08-8	**
Nutmeg butter	8008-45-5	*
Oleic acid	112-80-1	**
Oleyl alcohol	143-28-2	**
Oleyl palmitate	2906-55-0	**
Olive oil	8001-25-0	*
Orange juice slurry		*
Palm acid oil		**
Palm fatty acid distillate		**
Palm kernel fatty acid distillate		**
Palm kernel fatty acid methyl ester	67762-37-2	**
Palm kernel fatty acids		**
Palm kernel fatty alcohols		**
Palm kernel oil	8023-79-8	*
Palm kernel olein	8023-79-8	*
Palm kernel stearin	8023-79-8	*
Palm oil	8023-79-8	*
Palm oil fatty acids		**
Palm oil fatty alcohols		**
Palm oil fatty acid methyl ester		**
Palm oil mid-fractions		*
Palm olein		*
Palm stearin	8002-75-3	*
Palmitic acid	57-10-3	**
Palmitoleic acid	373-49-9	**
Peanut oil	8002-03-7	*
Pelargonic acid	112-05-0	**
Pentane	109-66-0	**
Petroleum wax, edible	8002-74-2	**
Phosphoric acid	7664-38-2	**
Pilchard oil		*
Polypropylene glycol	25322-69-4	**
Poppyseed oil		*
Potassium hydroxide solution	1310-58-3	**
Primary alcohol (C9-Cll)	66455-17-2	**
Primary alcohol (C12-C13)	75782-86-4	**
Primary alcohol (C12-C15)	63393-82-8	**
Primary alcohol (C14-C15)	75782-87-5	**
Propyl acetate	109-60-4	**

Trivial Name	CAS Number	Footnote
Propyl alcohol	71-23-8	**
Propylene glycol, 1,2-	57-55-6	**
Propylene glycol, 1,3-	504-63-2	**
Propylene tetramer	6842-15-5	**
Rapeseed oil (HEAR)	8002-13-9	*
Rapeseed oil (LEAR) ("double zero")	120962-03-0	*
Rapeseed oil (LEAR) ("single zero")		*
Rapeseed oil (hydrogenated)	8002-13-9	*
Rice bran acid oil		**
Rice bran oil	8016-60-2	*
Ricinoleic acid	141-22-0	**
Safflower oil	8001-23-8	*
Sal fat		*
Sardine oil		*
Sesame oil	8008-74-0	*
Shark oil	68990-63-6	*
Shea butter		*
Silicon dioxide	7631-86-9	**
Sodium hydroxide solution	1310-73-2	**
Sodium silicate	1344-09-8	**
Sorbitol	50-70-4	*
Soybean acid oil	8001-22-7	**
Soybean oil	8001-22-7	*
Soybean oil epoxidized	8013-07-8	**
Soybean oil fatty acid		**
Stearic acid	57-11-4	**
Stearyl alcohol	112-92-5	**
Sulphuric acid	7664-93-9	**
Sunflower oil	8001-21-6	*
Tall oil fatty acids, ASTM I and II	61790-12-3	**
Tallow (edible)	61789-97-1	*
Tallow (inedible)	61789-97-1	**(2)
Tallow fatty acids		**
Tallow fatty alcohols		**
Teaseed oil		*
Tridecyl alcohol	27458-92-0	**
Tucum oil		*
Tung oil	8001-20-5	**
Unedecanol, 1-(C-11)	112-42-5	**
Urea ammonium nitrate solution		**
Valeric acid	109-52-4	**
Vegetable ghee		*
Walnut oil		*

Trivial Name	CAS Number	Footnote
Water (potable)	7732-18-5	** (3)
White mineral oils, USP	8042-47-5	**
Wine less	868-14-4	(1)

Footnotes

* NIOP Acceptable Prior Cargo – List No. 1.
** NIOP Acceptable Prior Cargo – List No. 2.

(1) Under petition as 'Acceptable Prior cargo' on the NIOP List.

(2) Standards & Certification required. The country of origin in which the product is rendered must have standards or certification programs which are designed to preclude toxic or bacterial contamination and the transmission of pathogens including Bovine Spongiform Encephalitis (BSE) by animal products or byproducts.

(3) Is an Acceptable prior cargo only if the immediate previous cargo is also on the Acceptable List.

(4) Acceptable – Provided any future modifications in bactericides are appropriately reviewed.

LIST G

FOSFA INTERNATIONAL LIST OF ACCEPTABLE PREVIOUS CARGOES
(giving synonyms and alternative chemical names)

(Effective from 1 July 1999)

Acetic acid - (ethanoic acid; vinegar acid; methane carboxylic acid)
Acetic anhydride – (ethanoic anhydride)
Acetone – (dimethylketone; 2-propanone)
Acid oils & fatty acid distillates – from vegetable oils and fats and/or mixtures thereof and animal and marine fats and oils
Ammonium hydroxide – (ammonium hydrate; ammonia solution; aqua ammonia)
Ammonium polyphosphate
Animal, marine and vegetable (including hydrogenated) oils and fats (other than cashew shell nut oil and tall oil)
Beeswax
Benzyl alcohol - (NF & reagent grades only)
Beverages – (alcoholic and non alcoholic including fruit juices and potable water NOTE: potable water is acceptable only where the immediate previous cargo to it is on the List of Acceptable Previous Cargoes)
Butyl acetates – (n-; sec-; tert-)
Calcium ammonium nitrate
Calcium chloride solution
Calcium lignosulphonate – (sulphite lye; lignin liquor)
Calcium nitrate
Candelilla wax
Carnauba wax – (Brazil wax)
Caustic potash – (potassium hydroxide)
Caustic soda - (sodium hydroxide; sodium hydrate; lye; white caustic)
Cyclohexane – (hexamethylene; hexanaphthene; hexalhydrobenzene)
Cyclohexanol – (hexahydrophenol)
Cyclohexanone – (pimelic ketone; ketohexamethylene)
Dairy products
Dextrose solution
Epoxidised soyabean oil (with a minimum 7% oxirane oxygen content)
Ethanol – (ethyl alcohol; spirits)
Ethyl acetate – (acetic ether; acetic ester; vinegar naphtha)
2-Ethylhexanol – (2-ethylhexyl alcohol)
Fatty acids:
- Butyric acid - (n-butyric acid; butanoic acid; ethyl acetic acid; propyl formic acid)
- Valeric acid - (n-pentanoic acid; valerianic acid)
- Caproic acid - (n-hexanoic acid)
- Heptoic acid - (n-heptanoic acid)
- Caprylic acid - (n-octanoic acid)
- Pelargonic acid - (n-nonanoic acid)
- Capric acid - (n-decanoic acid)
- Lauric acid - (n-dodecanoic acid)

Lauroleic acid - (dodecenoic acid)

Myristic acid - (n-tetradecanoic acid)

Myristoleic acid - (n-tetradecenoic acid)

Palmitic acid - (n-hexadecanoic acid)

Palmitoleic acid - (cis-9-hexadecenoic acid)

Stearic acid - (n-octadecanoic acid)

Ricinoleic acid - (cis 12-hydroxy octadec-9-enoic acid; castor oil acid)

Oleic acid - (n-octadecenoic acid)

Linoleic acid - (9,12-octadecadienoic acid)

Linolenic acid - (9,12,15-octadecatrienoic acid)

Arachidic acid - (eicosanoic acid)

Behenic acid - (docosanoic acid)

Erucic acid - (cis 13-docosenoic acid)

Fatty alcohols – natural alcohols:

Butyl alcohol - (1-butanol; butyric alcohol)

Caproyl alcohol - (1-hexanol; hexyl alcohol)

Enanthyl alcohol - (1-heptanol; heptyl alcohol)

Capryl alcohol - (1-n-octanol; heptyl carbinol; the secondary alcohol is also frequently known as capryl alcohol – n-nonyl alcohol; methyl hexyl carbinol)

Nonyl alcohol - (1-nonanol; pelargonic alcohol; octyl carbinol)

Decyl alcohol - (1-decanol)

Lauryl alcohol - (n-dodecanol; dodecyl alcohol)

Myristyl alcohol - (1-tetradecanol; tetradecanol)

Cetyl alcohol - (alcohol C_{16}; 1-hexadecanol; cetylic alcohol; palmityl alcohol; n-primary hexadecyl alcohol)

Stearyl alcohol - (1-octadecanol)

Oleyl alcohol- (octadecenol)

Lauryl myristyl alcohol - (C_{12}-C_{14} blend)

Cetyl stearyl alcohol - (C_{16}-C_{18} blend)

Fatty alcohols – synthetic primary alcohols (C_9 – C_{15}) including tridecyl alcohol (1-tridecanol)

Fatty acid esters - any ester produced by the combination of any of the above listed fatty acids with any of the above listed fatty alcohols. Examples of these are butyl myristate, oleyl palmitate and cetyl stearate. The following esters are also included:

Methyl laurate – (methyl dodecanoate)

Methyl palmitate – (methyl hexadecanoate)

Methyl stearate – (methyl octadecanoate)

Methyl oleate – (methyl octadecenoate)

Formic acid – (methanoic acid; hydrogen carboxylic acid)

Glucose syrup – (corn syrup)

Glycerine – (glycerol: glycerin; glycyl alcohol; 1,2,3-propanetriol; 1,2,3-trihydroxy propane; trihydric alcohol)

Glycols -

Butylene glycol and butanediol – (1,3-butylene glycol; 1,3-butanediol, 1,4-butylene glycol; 1,4-butanediol; 2,3 butylene glycol; 2,3-butanediol)

Polypropylene glycol – (PG)

Propylene glycol - (1,2-propylene glycol; 1,2-propanediol; 1.2-dihydroxypropane; monopropylene glycol (MPG); methyl glycol)

1,3-Propylene glycol – (Trimethylene glycol; 1,3-propanediol)
n-Heptane (dipropylmethane)
n-Hexane
Isobutanol – (isobutyl alcohol; 2-methyl-1-propanol; isopropylcarbinol)
Isobutyl acetate
Isodecanol – (isodecyl alcohol)
Isononanol – (isononyl alcohol)
Isooctanol - (isooctyl alcohol)
Isopropanol – (isopropyl alcohol; IPA; 2-propanol; dimethyl carbinol)
Kaolin slurry
Limonene – (dipentene)
Magnesium chloride solution (magnogene)
Methanol – (methyl alcohol)
Methyl ethyl ketone – (MEK; 2-butanone)
Methyl isobutyl ketone – (MIBK; hexone; 4-methyl-2-pentanone; iso propylacetone)
Methyl tertiary butyl ether – (MTBE)
Molasses
Montan wax
Nonane (C_9) – (nonyl hydride)
Paraffin wax – edible grade
Pentane – (amyl hydride)
Phosphoric acid - (ortho phosphoric acid)
Propane-1-ol (propyl alcohol; 1-propanol)
n-Propyl acetate
Propylene tetramer – (tetrapropylene; dodecene)
Silicon dioxide (microsilica)
Sodium silicate (water glass)
Sorbitol - (D-sorbitol; hexahydric alcohol; D-sorbite)
Sulphuric acid
Urea ammonium nitrate solution - (UAN)
White mineral oil (liquid paraffin oil), CAS No. 8042-47-5/Codex No. 905a
Wine lees - (vinasses, vinaccia, argol, vini, argil arcilla, weinstein, crude cream of tartare, crude potassium biturate)

NOTES:

(1) Ethylene dichloride is on the Banned List and cannot be carried as any one of the last two cargoes in organically coated tanks and as the last cargo in stainless steel and inorganically coated tanks.

(2) Styrene monomer is on the Banned List and cannot be carried as any one of the last two cargoes in organically coated tanks and as the last cargo in stainless steel and inorganically coated tanks.