

# ANNEXES

## TO THE RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF CHEMICAL TANKERS

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**St. Petersburg  
2023**

## **ANNEXES TO THE RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF CHEMICAL TANKERS**

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The Annexes being a part of the Rules for the Classification and Construction of Chemical Tankers of Russian Maritime Register of Shipping (RS, the Register) have been approved in accordance with the established procedure and come into force on 1 January 2023.

The Annexes are based on the 2022 edition taking into account the amendments developed immediately before publication.

The provisions of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) with relevant amendments thereto implemented by resolutions MSC.460(101) and MEPC.318(74) of the International Maritime Organization (IMO) have been taken into consideration in the Annexes.

**REVISION HISTORY**

(purely editorial amendments are not included in the Revision History)

For this version, there are no amendments to be included in the Revision History.

**OPERATIONAL REQUIREMENTS**  
**(based on Chapter 16 of the IBC Code, as amended)**

**1 MAXIMUM ALLOWABLE QUANTITY OF CARGO PER TANK**

**1.1** The quantity of cargo allowable for carriage in any one tank is indicated in 1.2.1, Part I "Classification".

**2 CARGO INFORMATION**

**2.1** A copy of the IBC Code or the Rules for the Classification and Construction of Chemical Tankers<sup>1</sup> shall be on board every ship covered by these Rules. A copy of the IBC Code shall obligatory be on board ships covered by the IBC Code.

**2.2** Any cargo offered for bulk shipment shall be indicated in the shipping documents by the product name under which it is listed in Part XI "Summary of Technical Requirements" or in [Annex 4](#). Where the cargo is a mixture, an analysis indicating the dangerous components contributing significantly to the total hazard of the product shall be provided, or a complete analysis if this is available. Such an analysis shall be certified by the manufacturer or by an independent expert agreed by the Register and/or Flag State MA.

**2.3** Information shall be on board and kept in a readily accessible place, giving the necessary data for the safe carriage of cargo. Such information shall include a cargo stowage plan and also the following data:

- .1** a full description of the physical and chemical properties, including reactivity, necessary for safe containment of the cargo;
- .2** action to be taken in the event of spills or leaks;
- .3** countermeasures against accidental personal contact;
- .4** fire-fighting procedures and fire-fighting media;
- .5** procedures for cargo transfer, tank cleaning, gas-freeing and ballasting;
- .6** list of cargoes required to be stabilized or inhibited. Such cargoes shall not be permitted for carriage if the documents required by [2.2](#) are not supplied.

**2.4** If sufficient information necessary for the safe transportation of the cargo is not available, the cargo shall be refused.

**2.5** Cargoes which evolve highly toxic imperceptible vapours shall not be transported unless perceptible additives are introduced into the cargo.

**2.6** Where Part XI "Summary of Technical Requirements" refers to the requirements, the cargo viscosity at 20 °C shall be specified in the information on safe carriage of cargo. If the cargo viscosity exceeds 50 MPa, the temperature, at which the cargo has a viscosity of 50 MPa shall be specified in the information.

**2.7** Where Part XI "Summary of Technical Requirements" refers to the requirements, the cargo melting point shall be indicated in the information on safe carriage of cargo.

**2.8** Where column "o" in the table of Chapter 17 of the IBC Code refers to paragraph 16.2.7 of the IBC Code, the cargo is subject to the prewash requirements in regulation 13.7.1.4 of Annex II of MARPOL 73/78.

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<sup>1</sup> Hereinafter referred to as "these Rules".

### **3 PERSONNEL TRAINING**

**3.1** Each crew member shall be able to use protective equipment and have basic training in the procedures appropriate to his duties necessary under emergency conditions.

**3.2** Personnel involved in cargo operations shall be adequately trained in cargo handling procedures.

**3.3** Officers shall be trained in emergency procedures to deal with conditions of leakage, spillage or fire involving the cargo.

Sufficient number of them shall be instructed and trained in first medical aid for crew members injured due to contact with cargo carried.

### **4 ENTRY INTO CARGO TANKS**

**4.1** Crew members shall not enter cargo tanks, void spaces around such tanks, cargo-handling spaces or other enclosed spaces unless:

**.1** the compartment is free of toxic vapours and not deficient in oxygen; or

**.2** personnel wear breathing apparatus and other necessary protective equipment, and the entire operation is under the supervision of a responsible officer.

**4.2** Crew members shall not enter such spaces when the only hazard is of purely flammable nature, except under the supervision of a responsible officer.

### **5 OPENINGS IN TANKS**

**5.1** During handling and carriage of cargoes producing flammable and/or toxic vapours or when ballasting after the discharge of such cargo, cargo-tank lids shall always be kept closed.

With any hazardous cargo, cargo-tank lids, ullage and sighting ports and tank washing access covers shall be open only when necessary.

### **6 STOWAGE OF CARGO SAMPLES**

**6.1** Cargo samples shall be stowed in a designated space situated in the cargo area.

**6.2** The stowage space shall be:

**.1** cell-divided to stow bottles with cargo;

**.2** made of material resistant to the different liquids intended to be stowed; and

**.3** equipped with adequate ventilation arrangements.

**6.3** Samples which react with each other dangerously shall not be stowed close to each other.

**6.4** Samples shall not be retained on board longer than necessary.

### **7 CARGOES NOT TO BE EXPOSED TO EXCESSIVE HEAT**

**7.1** Where the possibility exists of polymerization, decomposition or evolution of gas, resulting from local overheating of the cargo, such cargo shall be loaded and carried adequately segregated from other products whose temperature is sufficiently high.

**7.2** Heating coils in tanks carrying this product shall be blanked off.

**7.3** Products which are not permitted to be heated, shall not be carried in deck tanks which are not insulated.

## **8 ADDITIONAL MEASURES FOR THE PROTECTION OF THE MARINE ENVIRONMENT**

### **8.1 GENERAL**

**8.1.1** The requirements of this Section apply to ships carrying cargoes noted as category X, Y or Z noxious liquid substances in Chapter 17 of the IBC Code, as amended.

### **8.2 REQUIREMENTS FOR EQUIPMENT AND ARRANGEMENTS**

**8.2.1** The equipment and arrangements of the ships shall comply with Regulation 12, Annex II to MARPOL 73/78.

**8.2.2** Substances with a melting point equal to or greater than 15 °C shall only be carried in a cargo tank fitted with a cargo heating system.

Such substances shall not be carried in cargo tanks any boundary of which is formed by the ship shell plating.

### **8.3 PROCEDURES AND ARRANGEMENTS MANUAL**

**8.3.1** Each ship shall be provided with a Procedures and Arrangements Manual (for the discharge of noxious liquid substances) developed for the ship in accordance with the standard format given in Appendix 4 to Annex II of MARPOL 73/78, as amended, and approved by the Register.

**8.3.2** Each ship shall be fitted with equipment and arrangements identified in its Procedures and Arrangements Manual.

## **9 EMERGENCY OUTFIT**

**9.1** If applicable, the following items of emergency outfit intended to remove faults within the cargo area, made of materials eliminating the possibility of dangerous reactions with any product to be carried and having sufficient chemical resistance to the effect of these products, shall be kept on chemical tankers as a part of the emergency outfit specified in Table 9.2.1, Part III "Equipment, Arrangements and Outfit" of the Rules for the Classification and Construction of Sea-Going Ships<sup>1</sup> or as addition thereto:

- patches;
- rigging and fitter's tools;
- stretchers and wedges;
- pipes and couplings of dimensions used on the chemical tanker;
- plugs, end-pieces, etc.;
- sheet materials for gaskets, packing material.

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<sup>1</sup> Hereinafter referred to as "the Rules for the Classification".

## **MANUAL FOR INSPECTION, CLEANING, PASSIVATION AND LOADING OF TANKS FOR THE CARRIAGE OF HYDROGEN PEROXIDE SOLUTIONS 8 — 60 % BY MASS**

### **1 GENERAL**

**1.1** Tanks having contained cargoes other than hydrogen peroxide shall be inspected, cleaned and passivated before re-use for the transportation of hydrogen peroxide solutions.

**1.2** Unless otherwise specified, all steps in inspection, cleaning and passivation apply to the tanks and to all associated piping and equipment having been in contact with the other cargo.

**1.3** Inspections and cleaning of tanks as given in [Section 2](#), shall be carried out under the supervision of the master or the shipper.

**1.4** Cleaning and passivation of tanks specified in Sections [2](#) and [3](#) as well as loading the hydrogen peroxide solutions specified in [Section 5](#), shall be carried out under the supervision and responsibility of a representative of the hydrogen peroxide manufacturer or under supervision and responsibility of another person familiar with the safety-relevant properties of this product.

### **2 INSPECTIONS AND CLEANING OF STAINLESS STEEL AND PURE ALUMINIUM TANKS**

**2.1** After unloading the previous cargo all residues, scale and rust shall be removed from the tank and the tank shall be inspected to ensure that no residues, scale and rust are present therein.

**2.2** Tanks and associated equipment shall be washed with clean filtered water. The water to be used shall at least have the quality of potable water with a low chlorine content.

**2.3** Trace residues and vapours of the previous cargo shall be removed by steaming of tank and equipment.

**2.4** Tanks and equipment shall be washed again with clean water, as specified in [2.2](#) and dried, using filtered, oil-free air.

**2.5** The atmosphere in the tank shall be sampled and investigated for the presence of organic vapours and oxygen concentration.

**2.6** The tank shall be checked again for residues of the previous cargo, scale and rust as well as for any smell of the previous cargo.

**2.7** If inspection or measurements indicate the presence of residues of the previous cargo or its vapours, steps [2.2 — 2.4](#) shall be repeated.

### **3 CLEANING AND PASSIVATION OF STAINLESS STEEL TANKS**

**3.1** Tank and equipment made from stainless steel which have contained other cargoes than hydrogen peroxide or which have been under repair shall be cleaned and passivated in accordance with the requirements of [3.1.1 — 3.1.8](#), regardless of any previous passivation.

**3.1.1** Welds and repaired parts shall be cleaned, ground and finished using stainless steel wire brush, chisel, sandpaper or buff.

**3.1.2** Fatty and oily residues shall be removed by the use of appropriate organic solvents or detergent solutions in water.

The use of chlorine-containing compounds shall be avoided as they can seriously interfere with passivation.

**3.1.3** The residues of the degreasing agent shall be removed, followed by a washing with water.

**3.1.4** In the next step, scale and rust shall be removed by the application of acid (e.g. a mixture of nitric and hydrofluoric acids), followed again by a washing with clean water.

**3.1.5** All the metal surfaces which can come into contact with hydrogen peroxide solutions shall be passivated by the application of nitric acid of a concentration between 10 and 35 % by mass. The nitric acid must be free from heavy metals, other oxidizing agents or hydrogen fluoride.

The passivation process shall continue for 8–24 h, depending upon the concentration of acid, the ambient temperature and other factors. During this time a continuous contact between the surfaces to be passivated and the nitric acid shall be ensured. In the case of large surfaces this may be achieved by recirculating the acid.

Hydrogen gas may be evolved in the passivation process, leading to the presence of an explosive atmosphere in the tanks. Therefore, appropriate measures must be taken to avoid the evolution of hydrogen gas and build-up of ignition of such an atmosphere.

**3.1.6** After passivation the surfaces shall be thoroughly washed with clean filtered water. The washing process shall be repeated until the effluent water has the same pH value as the incoming water.

**3.1.7** Structures passivated according to the above steps may cause some surface erosion when coming into contact with hydrogen peroxide solution for the first time. This process will cease after a short time (usually within two or three days). Therefore, an additional flushing of the passivated surfaces with hydrogen peroxide solutions for a period of at least two days is recommended.

**3.1.8** Only degreasing and acid cleaning agents which have been recommended for this purpose by the manufacturer of the hydrogen peroxide shall be used in the process.

#### **4 CLEANING AND PASSIVATION OF ALUMINIUM TANKS**

**4.1** Tanks and equipment made from aluminium and which have contained cargoes other than hydrogen oxide, or which have been under repair, shall be cleaned and passivated in accordance with the requirements of [4.1.1—4.1.5](#).

**4.1.1** The tank shall be washed with a solution of sulphonated detergent in hot water, followed by a washing with water.

**4.1.2** The surfaces shall then be treated for 15–20 min with a solution of sodium hydroxide of a concentration of 7 % by mass or treated for a longer period with a less concentrated solution (e.g. for 12 h with 0,4–0,5 % sodium hydroxide).

To prevent excessive corrosion at the bottom of the tank when treating with more concentrated solutions of sodium hydroxide water shall be added continuously to dilute the sodium hydroxide solution which collects there.

**4.1.3** Tanks shall be thoroughly washed with clean, filtered water.

As soon as possible after washing, tanks shall be passivated by the application of nitric acid of a concentration between 30 and 35 % by mass.

The passivation process shall continue for 16–24 h. During this time a continuous contact between the surfaces to be passivated and the nitric acid shall be ensured.

**4.1.4** After passivation all the surfaces shall be thoroughly washed with clean, filtered water. The washing process shall be repeated until the effluent water has the same pH value as the incoming water.

**4.1.5** A visual inspection shall be made to ensure that all surfaces have been adequately passivated.

It is recommended that an additional flushing of the surface passivated is carried out for 24 h with hydrogen peroxide solutions of a concentration of 3 % by mass.

## **5 LOADING OF TANKS**

**5.1** The concentration and stability of the hydrogen peroxide solution shall be determined during loading.

**5.2** The hydrogen peroxide solution is loaded under visual supervision of the interior of the tank from an appropriate opening.

**5.3** If bubbling is observed which does not disappear within 15 min after the completion of loading, the hydrogen peroxide solutions shall be unloaded and disposed of in an environmentally safe manner. The tanks shall then be cleaned and re-passivated as described above.

## **6 PREPARATION OF TANKS FOR THE CARRIAGE OF OTHER CARGOES**

**6.1** All steps specified in this paragraph shall apply both to the cargo tanks and to all the piping and equipment having been in contact with hydrogen peroxide.

**6.1.1** All hydrogen peroxide cargo residues shall be drained as completely as possible from tanks and equipment.

**6.1.2** Tanks and equipment shall be rinsed with clean water, and subsequently thoroughly washed with clean water.

**6.1.3** The interior of the tanks shall be dried and inspected for any residues.

**6.1.4** All steps shall be carried out under the supervision of the master or the shipper. Inspection referred to in [6.1.3](#) shall be carried out by a person familiar with the safety relevant properties of the chemical to be transported and of hydrogen peroxide.

## **7 PRECAUTIONS**

**7.1** Hydrogen peroxide decomposition may enrich the atmosphere with oxygen and, therefore, appropriate precautions shall be observed.

**7.2** Hydrogen gas may be evolved in the passivation processes described in [3.1.5](#), [4.1.2](#) and [4.1.3](#), leading to the presence of an explosive atmosphere in the tank. Therefore, special measures must be taken to avoid the build-up of such an atmosphere.

**NAMES AND SYNONYMS OF VEGETABLE OIL, COD-LIVER OIL AND ADIPOSE**

**CASTOR OIL**

BP Castor oil  
BSS Castor oil  
Commercial Castor oil  
First Pressure Castor oil  
Fractionated Castor oil  
Hydrogenated Castor oil  
Interesterified Castor oil  
No. 1 Castor oil  
Pharmaceutical Grade Castor oil  
Ricinus oil

**COCOA BUTTER**

Cocoa butter Degummed  
Cocoa butter Pressed Degummed Deodorized  
Crude Cocoa butter  
Deodorized Cocoa butter  
Deodorized Degummed Cocoa butter  
PPP (Pure Prime Pressed) Cocoa butter

**COCONUT OIL**

Cochin Coconut oil  
Coconut Palm oil  
Copra oil  
Crude Coconut oil  
Degummed Coconut oil  
Fractionated Coconut oil  
Free Coconut oil  
Hydrogenated Coconut oil  
Interesterified Coconut oil  
RBD Coconut oil

**CORN OIL**

Crude Corn oil  
Crude Degummed Corn oil  
Fractionated Corn oil  
Hydrogenated Corn oil  
Interesterified Corn oil  
Maize oil  
Refined & Bleached Corn oil  
Refined, Bleached & Winterized Corn oil

RBD Corn oil  
RBD Maize oil  
RBDW Corn oil  
RBDW Maize oil

**COTTONSEED OIL**

Cotton oil  
Fractionated Cottonseed oil  
Hydrogenated Cottonseed oil  
Interesterified Cottonseed oil  
PBSY Cottonseed oil  
Semi-refined Cottonseed oil

**FISH OIL**

Anchovy oil  
Capeline oil  
Cod oil  
Crude Fish oil  
Fractionated Fish oil  
Herring oil  
Hydrogenated Fish oil  
Interesterified Fish oil  
Menhaden oil  
Menhaden Stearin Salmon oil  
Sardine oil

**GROUNDNUT OIL**

Arachis oil  
Crude Groundnut oil  
Fractionated Groundnut oil  
Hydrogenated Groundnut oil  
Interesterified Groundnut oil  
Peanut oil  
Refined Groundnut oil

**ILLIPE OIL**

Borneo Tallow  
Fractionated Illipe oil  
Green butter  
Hydrogenated Illipe oil  
Illipe butter  
Interesterified Illipe oil  
Tengkawang butter

**LARD**

Choice Kettle lard  
Crude lard Edible lard  
Fractionated lard  
Hydrogenated lard  
Inedible lard  
Interesterified lard  
Leaf lard  
Steam lard

**LINSEED OIL**

Flaxseed oil  
Crude Linseed oil  
Fractionated Linseed oil  
Hydrogenated Linseed oil  
Interesterified Linseed oil  
Raw Linseed oil

**MANGO KERNEL OIL**

Fractionated Mango Kernel oil  
Hydrogenated Mango Kernel oil  
Interesterified Mango Kernel oil  
Mangifera Indica oil  
Mango butter  
Mango Seed oil

**OLIVE OIL**

Crude Olive oil  
Extra Virgin Olive oil  
Lampante Virgin Olive oil  
Olive-Pomace oil  
Ordinary Virgin Olive oil  
Refined Olive oil  
Virgin Olive oil

**RAPSEED OIL**

Canola oil  
Crude Degummed Rapeseed oil  
Crude Rapeseed oil  
Fractionated HE Rapeseed oil  
Fractionated Rapeseed oil  
Genetically Modified Rapeseed oil  
HE Rapeseed oil  
HEAR oil  
High Erucic Acid Rapeseed oil

Hydrogenated HE Rapeseed oil  
Hydrogenated Rapeseed oil  
Interesterified HE Rapeseed oil  
Interesterified Rapeseed oil  
LEAR oil  
Low erucic acid rapeseed oil  
RBD Canola oil  
RBD Rapeseed oil  
Refined Canola oil  
Refined Rapeseed oil  
Technical Rapeseed oil

**RICE BRAN OIL**

Fractionated Rice Bran oil  
Hydrogenated Rice Bran oil  
Interesterified Rice Bran oil

**SAFFLOWER OIL**

Safflower-seed oil  
Fractionated Safflower oil  
Hydrogenated Safflower oil  
Interesterified Safflower oil  
Thistle-seed oil

**SHEA BUTTER**

Karite butter  
Karitenut butter  
Shea Butter oil  
Shea Butter olein  
Shea Butter stearin  
Sheanut butter

**SOYA BEAN OIL**

Aceite Crude Desgomado De Soya (S)  
Aceite Crudo De Soya (S)  
Aceite De Soya (S)  
Crude Degummed Soya bean oil  
Crude Degummed Soya bean oil  
Crude Degummed Soya bean oil of Edible Grade  
Crude Soya bean oil  
Crude Soya bean oil  
Crude Superdegummed Soya bean oil  
Expelled Soya bean oil  
Fractionated Soya bean oil  
Genetically Modified Soya bean oil  
Huile Brute De Soya (F)

Huile Brute De Soya Desgommee (F)  
Huile De Soya (F)  
Hydrogenated Soya bean oil  
Interesterified Soya bean oil  
RBD Soy oil  
RBD Soya bean oil  
Refined Soya oil  
Soya oil  
Soya bean oil

**SUNFLOWER-SEED OIL**

Crude Sunflower oil  
Crude Sunflower-seed oil  
Crude Sunflower-seed oil of Edible Grade  
Fractionated Sunflower-seed oil  
Genetically Modified Sunflower-seed oil  
High Oleic Sun oil  
Hydrogenated Sunflower-seed oil  
Interesterified Sunflower-seed oil  
Refined Sunflower-seed oil  
Sun oil  
Sunflower oil

**TALLOW**

"A" tallow  
All Beef Packer tallow  
All White tallow  
Barso tallow  
Beef tallow  
Bleachable Fancy tallow  
Bulk tallow  
Choice White Grease  
Choice White tallow  
Crude tallow oil  
Edible tallow  
Extra Fancy tallow  
Fancy tallow  
Feed Grade tallow  
Fractionated tallow  
Gannet tallow  
Good Soap tallow  
Government Certified Edible Beef tallow  
High Energy Feed Fat  
Hydrogenated tallow  
Inedible Beef tallow  
Inedible tallow  
Inedible Unbleached Technical tallow  
Interesterified tallow  
Laundry Grade tallow

Low Grade tallow  
Low Titre tallow  
Mutton tallow  
Poultry oil Prime tallow  
Pure Beef tallow  
Special tallow  
Tallow oil  
Technical Edible tallow  
Technical tallow  
Toilet Grade tallow  
Top White tallow  
Yellow Grease

**TUNG OIL**

China Wood oil  
Raw Tung oil  
Raw Wood oil  
Wood oil

**PALM OIL**

Bleached palm oil  
Crude palm oil (CPO)  
Fractionated palm oil  
Hydrogenated palm oil  
Interesterified palm oil  
Neutralized and bleached palm oil  
Neutralized palm oil  
NBD palm oil  
Palm fruit oil  
Palm mesocarp oil  
Red palm oil  
RBD palm oil  
RBD Sustainable palm oil  
Sustainable palm oil  
Technical palm oil  
Non-edible industrial grade palm oil

**PALM OLEIN**

Bleached palm olein Red palm olein  
Crude palm olein  
RBD palm olein  
Neutralized and bleached palm olein  
Palm liquid fraction  
Sustainable palm olein  
RBD Sustainable palm olein  
Palm superolein  
Hydrogenated palm olein

Fractionated palm olein  
Interesterified palm olein  
Neutralized palm olein  
Neutralized bleached and deodorized (NBD) palm olein  
Palm-based used cooking oil

***PALM STEARIN***

Crude palm stearin  
RBD palm stearin  
Neutralized and bleached palm stearin  
Palm oil solid fraction  
Sustainable palm stearin  
RBD Sustainable palm stearin  
Soft stearin  
Hydrogenated palm stearin  
Fractionated palm stearin  
Interesterified palm stearin  
Bleached palm stearin  
Red palm stearin  
Neutralized palm stearin  
Neutralized bleached and deodorized  
NBD palm stearin

***PALM KERNEL OIL***

Crude palm kernel oil (CPKO)  
RBD palm kernel oil  
Neutralized and bleached palm kernel oil  
Sustainable palm kernel oil  
RBD sustainable palm kernel oil  
Hydrogenated palm kernel oil  
Fractionated palm kernel oil  
Interesterified palm kernel oil  
Bleached palm kernel oil  
Neutralized palm kernel oil  
Neutralized bleached and deodorized (NBD) palm kernel oil

***PALM KERNEL STEARIN***

Crude palm kernel stearin  
RBD palm kernel stearin  
Neutralized and bleached palm kernel stearin  
Palm kernel oil solid fraction  
Sustainable palm kernel stearin  
RBD Sustainable palm kernel stearin  
Hydrogenated palm kernel stearin  
Fractionated palm kernel stearin  
Interesterified palm kernel stearin  
Bleached palm kernel stearin Neutralized palm kernel stearin

Neutralized bleached and deodorized (NBD) palm kernel stearin

***PALM KERNEL OLEIN***

Crude palm kernel olein  
RBD palm kernel olein  
Fractionated palm kernel olein  
Interesterified palm kernel olein  
Bleached palm kernel olein  
Neutralized palm kernel olein  
Neutralized bleached and deodorized  
NBD palm kernel olein  
Palm kernel oil liquid fraction  
Sustainable palm kernel olein  
RBD Sustainable palm kernel olein  
Hydrogenated palm kernel olein  
Neutralized and bleached palm kernel olein

***PALM FATTY ACID DISTILLATE (PFAD)***

Palm oil fatty acid distillate  
Fatty acid distillate from palm oil  
Palm deodorizer distillate  
Hydrogenated palm fatty acid distillate (HPFAD)  
Distilled palm fatty acid distillate

***PALM ACID OIL (PAO)***

Acid oil from palm oil  
Acid oil from palm oil chemical refining  
Acidulated palm oil soap stock  
Hydrogenated palm acid oil

***PALM KERNEL FATTY ACID DISTILLATE (PKFAD)***

Palm kernel oil fatty acid distillate  
Fatty acid distillate from Palm kernel oil  
Palm kernel deodorizer distillate  
Hydrogenated palm kernel fatty acid distillate (HPKFAD)  
Distilled palm kernel fatty acid distillate

***PALM KERNEL ACID OIL (PKAO)***

Acid oil from Palm kernel oil  
Acid oil from Palm kernel oil chemical refining  
Acidulated Palm kernel oil soap stock  
Hydrogenated palm kernel acid oil

***PALM MID FRACTION***

Crude palm mid fraction  
RBD palm mid fraction  
Neutralized palm mid fraction  
Neutralized and bleached palm mid fraction  
Sustainable palm mid fraction  
Hydrogenated palm mid fraction  
Fractionated palm mid fraction  
Interesterified palm mid fraction  
Bleached palm mid fraction  
Red palm mid fraction

***HIGH FFA PALM OIL***

High FFA crude palm oil  
High FFA Technical palm oil  
High FFA Non-edible Industrial Grade palm oil  
Residue palm oil  
Spent clay oil  
Low grade palm oil

***ABBREVIATIONS***

The following abbreviations have been adopted in this Annex:

BP — British Pharmacopeia;  
BSS — British Standard Specification;  
FFA — Free Fatty Acid;  
HE — High Erucic;  
HEAR — High Erucic Acid Rapeseed;  
LEAR — Low Erucic Acid Rapeseed;  
NBD — Neutralized Bleached Deodorized;  
PBSY — Prime Bleachable Summer Yellow;  
RBD — Refined Bleached Deodorized;  
RBDW — Refined Bleached Deodorized Winterized.

Note. Basic names are written in bold type (Roman and Italic), the other names are synonyms.

**LIST OF CHEMICALS TO WHICH THE IBC CODE DOES NOT APPLY**

Refer to Chapter 18 of the IBC Code, as amended by IMO resolutions MSC.460(101) and MEPC.318(74).

Russian Maritime Register of Shipping

**Annexes to the Rules for the Classification and Construction of Chemical Tankers**

FAI "Russian Maritime Register of Shipping"  
8, Dvortsovaya Naberezhnaya,  
191186, St. Petersburg,  
Russian Federation  
[www.rs-class.org/en/](http://www.rs-class.org/en/)