RESOLUTION MEPC.318(74) (adopted on 17 May 2019)

AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)

(Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO resolution MEPC.19(22) by which it adopted the *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk* ("the IBC Code"), and resolution MEPC.16(22) by which the IBC Code has become mandatory under Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL),

RECALLING FURTHER article 16 of MARPOL and regulation 1.4 of MARPOL Annex II concerning the procedure for amending the IBC Code,

HAVING CONSIDERED, at its seventy-fourth session, proposed amendments to the IBC Code, which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to the IBC Code, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments to the IBC Code shall be deemed to have been accepted on 1 July 2020 unless, prior to that date, not less than one third of the Parties or Parties, the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the amendments to the IBC Code shall enter into force on 1 January 2021 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments to the IBC Code contained in the annex, to all Parties to MARPOL;

5 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to the Members of the Organization which are not Parties to MARPOL.

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ANNEX

AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)

Chapter 1

General

1 The existing section 1.3 is replaced by the following:

"1.3 Definitions

The following definitions apply unless expressly provided otherwise. (Additional definitions are given in individual chapters).

- 1.3.1 Accommodation spaces are those spaces used for public spaces, corridors, lavatories, cabins, offices, hospitals, cinemas, games and hobbies rooms, barber shops, pantries containing no cooking appliances and similar spaces. *Public spaces* are those portions of the accommodation spaces which are used for halls, dining rooms, lounges and similar permanently enclosed spaces.
- 1.3.2 *Administration* means the Government of the State whose flag the ship is entitled to fly. For *Administration (Port)* see *Port Administration*.
- 1.3.3 *Anniversary date* means the day and the month of each year which will correspond to the date of expiry of the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk.
- 1.3.4 *Boiling point* is the temperature at which a product exhibits a vapour pressure equal to the atmospheric pressure.
- 1.3.5 Breadth (B) means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material. The breadth (B) shall be measured in metres.
- 1.3.6 *Cargo area* is that part of the ship that contains cargo tanks, slop tanks, cargo pump-rooms including pump-rooms, cofferdams, ballast or void spaces adjacent to cargo tanks or slop tanks and also deck areas throughout the entire length and breadth of the part of the ship over the above-mentioned spaces. Where independent tanks are installed in hold spaces, cofferdams, ballast or void spaces at the after end of the aftermost hold space or at the forward end of the forward-most hold space are excluded from the cargo area.
- 1.3.7 *Cargo pump-room* is a space containing pumps and their accessories for the handling of the products covered by the Code.
- 1.3.8 *Cargo service spaces* are spaces within the cargo area used for workshops, lockers and storerooms of more than 2 m² in area, used for cargo-handling equipment.

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- 1.3.9 *Cargo tank* is the envelope designed to contain the cargo.
- 1.3.10 *Chemical tanker* is a cargo ship constructed or adapted and used for the carriage in bulk of any liquid product listed in chapter 17.
- 1.3.11 *Cofferdam* is the isolating space between two adjacent steel bulkheads or decks. This space may be a void space or a ballast space.
- 1.3.12 *Control stations* are those spaces in which ship's radio or main navigating equipment or the emergency source of power is located or where the fire-recording or fire-control equipment is centralized. This does not include special fire-control equipment which can be most practically located in the cargo area.
- 1.3.13 *Dangerous chemicals* means any liquid chemicals designated as presenting a safety hazard, based on the safety criteria for assigning products to chapter 17.
- 1.3.14 *Density* is the ratio of the mass to the volume of a product, expressed in terms of kilograms per cubic metre. This applies to liquids, gases and vapours.
- 1.3.15 *Explosive/flammability limits/range* are the conditions defining the state of fuel–oxidant mixture at which application of an adequately strong external ignition source is only just capable of producing flammability in a given test apparatus.
- 1.3.16 *Flashpoint* is the temperature in degrees Celsius at which a product will give off enough flammable vapour to be ignited. Values given in the Code are those for a "closed-cup test" determined by an approved flashpoint apparatus.
- 1.3.17 *Gas-freeing* means the process where a portable or fixed ventilation system is used to introduce fresh air into a tank in order to reduce the concentration of hazardous gases or vapours to a level safe for tank entry.
- 1.3.18 *Hold space* is the space enclosed by the ship's structure in which an independent cargo tank is situated.
- 1.3.19 *Independent* means that a piping or venting system, for example, is in no way connected to another system and that there are no provisions available for the potential connection to other systems.
- 1.3.20 Length (L) means 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the designed waterline. The length (L) shall be measured in metres.
- 1.3.21 *Machinery spaces of category A* are those spaces and trunks to such spaces which contain:
 - .1 internal-combustion machinery used for main propulsion; or

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- .2 internal-combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less than 375 kW; or
- .3 any oil-fired boiler or oil fuel unit or any oil-fired equipment other than boilers, such as inert gas generators, incinerators, etc.
- 1.3.22 *Machinery spaces* are all machinery spaces of category A and all other spaces containing propelling machinery, boilers, oil fuel units, steam and internal-combustion engines, generators and major electrical machinery, oil filling station, refrigerating, stabilizing, ventilation and air-conditioning machinery, and similar spaces, and trunks to such spaces.
- 1.3.23 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997, as amended.
- 1.3.24 *Noxious Liquid Substance* means any substance indicated in the Pollution Category column of chapters 17 or 18 of the International Bulk Chemical Code, or the current MEPC.2/Circular or provisionally assessed under the provisions of regulation 6.3 of MARPOL Annex II as falling into categories X, Y or Z.
- 1.3.25 *Oil fuel unit* is the equipment used for the preparation of oil fuel for delivery to an oil-fired boiler, or equipment used for the preparation for delivery of heated oil to an internal-combustion engine, and includes any oil pressure pumps, filters and heaters dealing with oil at a gauge pressure of more than 0.18 MPa.
- 1.3.26 *Organization* is the International Maritime Organization (IMO).
- 1.3.27 *Permeability* of a space means the ratio of the volume within that space which is assumed to be occupied by water to the total volume of that space.
 1.3.28 *Port Administration* means the appropriate authority of the country in the
- port of which the ship is loading or unloading.
- 1.3.29 *Products* is the collective term used to cover both Noxious Liquid Substances and Dangerous Chemicals.
- 1.3.30 *Pump-room* is a space, located in the cargo area, containing pumps and their accessories for the handling of ballast and oil fuel.
- 1.3.31 *Purging* means the introduction of inert gas into a tank which is already in an inert condition with the object of further reducing the oxygen content; and/or reducing the existing hydrocarbon or other flammable vapours content to a level below which combustion cannot be supported if air is subsequently introduced into the tank.
- 1.3.32 *Recognized organization* is an organization authorized by an Administration in accordance with MARPOL Annex II regulation 8.2.2 and SOLAS regulation XI-1/1.

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- 1.3.33 Recognized standards are applicable international or national standards acceptable to the Administration or standards laid down and maintained by an organization which complies with the standards adopted by the Organization and which is recognized by the Administration.
- 1.3.34 Reference temperature is the temperature at which the vapour pressure of the cargo corresponds to the set pressure of the pressure-relief valve.
- 1.3.35 Separate means that a cargo piping system or cargo vent system, for example, is not connected to another cargo piping or cargo vent system.
- 1.3.36 Service spaces are those spaces used for galleys, pantries containing cooking appliances, lockers, mail and specie rooms, storerooms, workshops other than those forming part of the machinery spaces and similar spaces and trunks to such spaces.
- 1.3.37 SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.
- 1.3.38 Vapour pressure is the equilibrium pressure of the saturated vapour above a liquid expressed in Pascals (Pa) at a specified temperature.
- 1.3.39 Void space is an enclosed space in the cargo area external to a cargo tank, other than a hold space, ballast space, oil fuel tank, cargo pump-room, pump-room, or any space in normal use by personnel."
- Paragraph 1.5.1.2 is replaced by the following:
 - "1.5.1.2 The recognized organization referred to in 1.3.32 shall comply with the provisions of SOLAS and MARPOL and with Parts 1 and 2 of the Code for Recognized Organizations (RO Code), as adopted by resolutions MSC.349(92) and MEPC.237(65), as may be amended."

Chapter 15

Special requirements

In paragraph 15.8.25.1, the reference to paragraph "1.3.18" in the second set of 3 brackets is replaced by "1.3.19".

4 Section 15.15 is replaced by the following:

"15.15 Hydrogen sulphide (H₂S) detection equipment for bulk liquids

Hydrogen sulphide (H₂S) detection equipment shall be provided on board ships carrying bulk liquids prone to H₂S formation. It should be noted that scavengers and biocides, when used, may not be 100% effective in controlling the formation of H_2S . Toxic vapour detection instruments complying with the requirement in 13.2.1 of the Code for testing for H₂S may be used to satisfy this requirement."

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Chapter 16

Operational requirements

- 5 Paragraph 16.2.7 is replaced by the following:
 - "16.2.7 Where *column* o in the table of chapter 17 refers to this paragraph, the cargo is subject to the prewash requirements in regulation 13.7.1.4 of Annex II of MARPOL."
- 6 The complete text of chapters 17, 18 and 19 is replaced by the following:

"Chapter 17

Summary of minimum requirements

17.1 Mixtures of noxious liquid substances presenting pollution hazards only, and which are assessed or provisionally assessed under regulation 6.3 of MARPOL Annex II, may be carried under the requirements of the Code applicable to the appropriate position of the entry in this chapter for Noxious Liquid Substances, not otherwise specified (n.o.s.).

17.2 EXPLANATORY NOTES

Product name (column a)	offerec bracke	oduct name shall be used in the shipping document for any cargo I for bulk shipments. Any additional name may be included in ts after the product name. In some cases, the product names are not al with the names given in previous issues of the Code.
UN Number (column b)	Delete	d
Pollution Category (column c)		tter X, Y, Z means the Pollution Category assigned to each product MARPOL Annex II.
Hazards <i>(column d)</i>	hazard pollutic	eans that the product is included in the Code because of its safety ls; "P" means that the product is included in the Code because of its on hazards; and "S/P" means that the product is included in the Code se of both its safety and pollution hazards.
Ship Type <i>(column e)</i>	1: 2: 3:	Ship Type 1 (2.1.2.1) Ship Type 2 (2.1.2.2) Ship Type 3 (2.1.2.3)
Tank type <i>(column f)</i>	1: 2: G: P:	independent tank (4.1.1) integral tank (4.1.2) gravity tank (4.1.3) pressure tank (4.1.4)
Tank vents (column g)		controlled venting open venting
Tank environmental control <i>(column h)</i>	Inert: Pad: Dry: Vent: No:	inerting (9.1.2.1) liquid or gas padding (9.1.2.2) drying (9.1.2.3) natural or forced ventilation (9.1.2.4) no special requirements under this Code (inerting may be required under SOLAS)

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Electrical equipment <i>(column i)</i>	Temperature classes	 (i') T1 to T6 - indicates no requirements blank no information
	Apparatus group (i'')	IIA, IIB or IIC: - indicates no requirements blank no information
	Flash point (i''')	Yes: flashpoint exceeding 60°C (10.1.6) No: flashpoint not exceeding 60°C (10.1.6) NF: non-flammable product (10.1.6)
Gauging <i>(column j)</i>	O: open gauging R: restricted gaug C: closed gauging	ing (13.1.1.2)
Vapour detection (column k)	F: flammable vap T: toxic vapours No: indicates no sp	ours becial requirements under this Code
Fire protection (column l)	B: regular foam; alcohol-resista aqueous-film-fo C: water-spray D: dry chemical	nt foam or multi-purpose foam encompasses all foams that are not of an ant type, including fluoro-protein and orming foam (AFFF) uirements under this Code
Materials of construction (column m)	Deleted	
Emergency equipment <i>(column n)</i>	Yes: see 14.3.1 No: no special requ	uirements under this Code
Specific and operational requirements (column o)		ence is made to chapters 15 and/or 16, these additional to the requirements in any other column.

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Ζ S/P 2

S/P 3

Y S/P 2

S/P 3

Y S/P 2

3

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S/P 2

Ρ

X S/P 2

а

Acid oil mixture from soya bean, corn (maize) and sunflower

Acrylonitrile-Styrene copolymer dispersion in polyether polyol

Acrylic acid/ethenesulphonic acid copolymer with

phosphonate groups, sodium salt solution

Alachlor technical (90% or more)

Acetic acid

Acetochlor

Acetonitrile

oil refining

Acrylic acid

Acrylonitrile

Adiponitrile

Acetonitrile (Low purity grade)

Acrylamide solution (50% or less)

Acetic anhydride

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T1

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T2 IIA

T1 IIΒ

IIA

No

Yes

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16.2.9

16.2.9, 16.6.1

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15.11.6, 15.11.7, 15.11.8, 15.17, 15.19, 16.2.9

15.11.2, 15.11.3, 15.11.4,

15.12.3, 15.12.4, 15.19.6

15.12, 15.13, 15.17, 15.19,

15.12.3, 15.12.4, 15.19.6

15.12.3, 15.12.4, 15.19.6

15.19.6, 16.2.6, 16.2.7,

15.12, 15.13, 15.17, 15.19,

15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8,

15.12, 15.13, 15.17, 15.19

15.19.6, 16.2.6

16.2.9

Yes 15.12, 15.17, 15.19, 16.2.9 15.12, 15.17, 15.19.6,

15.12.3, 15.12.4, 15.13, 15.17, 15.19, 16.2.9, 16.6.1

15.19.6, 16.2.6, 16.2.9

16.6.1, 16.6.2, 16.6.3

Z S/P T1 IIA CF AC Yes 3 2G Cont No No Z S/P 2 RFT 2G Cont No T2 IIA No AC Yes 15.11.6, 15.11.7, 15.11.8, X S/P 2 2G Open O No No Yes AC No Y S/P 1 1G Cont СТ Acetone cyanohydrin No Yes AC Yes -Ζ 2G Cont T2 R FT S/P 3 No IIA No AC No

2G Cont

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2G

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No

No

No

No

No

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Alcohol (C9-C11) poly (2.5-9) ethoxylate	Y	S/P	3	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates	Y	S/P	2	2G	Cont	No			Yes	с	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates	Y	S/P	2	2G	Cont	No			Yes	с	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Alcohol (C10-C18) poly (7) ethoxylate	Y	S/P	3	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Alcohol (C12-C16) poly (1-6) ethoxylates	Y	S/P	2	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Alcohol (C12-C16) poly (20+) ethoxylates	Y	S/P	3	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Alcohol (C12-C16) poly (7-19) ethoxylates	Y	S/P	2	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Alcohols (C13+)	Υ	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Alcohols (C12+), primary, linear	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alcohols (C8-C11), primary, linear and essentially linear	Y	S/P	2	2G	Cont	No	-	-	Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Alcohols (C12-C13), primary, linear and essentially linear	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alcohols (C14-C18), primary, linear and essentially linear	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Alkanes (C6-C9)	Х	S/P	2	2G	Cont	No	Т3	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
Iso- and cyclo-alkanes (C10-C11)	Y	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Iso- and cyclo-alkanes (C12+)	Y	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
n-Alkanes (C9-C11)	Υ	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	ABC	No	15.19.6
n-Alkanes (C10 – C20)	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alkaryl polyethers (C9-C20)	Y	S/P	2	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19, 16.2.6

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Alkenoic acid, polyhydroxy ester borated	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Alkenyl (C11+) amide	Х	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alkenyl (C16-C20) succinic anhydride	Z	S/P	3	2G	Cont	No			Yes	С	т	ABC	Yes	15.12, 15.17, 15.19
Alkyl acrylate/vinylpyridine copolymer in toluene	Y	S/P	2	2G	Cont	No	T1	IIB	No	с	FT	ABC	No	15.12, 15.17, 15.19.6, 16.2.9
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	х	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Alkylated (C4-C9) hindered phenols	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	z	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Alkyl benzene distillation bottoms	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Alkylbenzene mixtures (containing at least 50% of toluene)	Y	S/P	3	2G	Cont	No	T1	IIA	No	с	FT	ABC	No	15.12, 15.17, 15.19.6
Alkylbenzenes mixtures (containing naphthalene)	x	S/P	2	2G	Cont	No			Yes	с	т	ABC	No	15.12, 15.17, 15.19.6
Alkyl (C3-C4) benzenes	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Alkyl (C5-C8) benzenes	х	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Alkyl (C9+) benzenes	Υ	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Alkyl (C11-C17) benzene sulphonic acid	Y	S/P	2	2G	Cont	No	-	-	Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Alkylbenzene sulphonic acid, sodium salt solution	Y	S/P	2	2G	Cont	No	-	-	NF	с	Т	No	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Alkyl/cyclo (C4-C5) alcohols	Y	S/P	3	2G	Cont	No	Т2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6

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Alkyl (C10-C15, C12 rich) phenol poly (4-12) ethoxylate	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Alkyl (C12+) dimethylamine	х	S/P	1	2G	Cont	No	-	-	Yes	С	т	ABC	Yes	15.12, 15.17, 15.19
Alkyl dithiocarbamate (C19-C35)	Y	Р	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alkyldithiothiadiazole (C6-C24)	Y	Ρ	3	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6, 16.2.6
Alkyl ester copolymer (C4-C20)	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Alkyl (C7-C9) nitrates	Y	S/P	2	2G	Cont	No			Yes	С	т	ABC	Yes	15.12, 15.17, 15.19, 15.20, 16.6.1, 16.6.2, 16.6.3
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)	Y	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Alkyl (C7-C11) phenol poly(4-12) ethoxylate	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Alkyl (C8-C40) phenol sulphide	Z	S/P	3	2G	Open	No			Yes	0	No	ABC	No	
Alkyl (C8-C9) phenylamine in aromatic solvents	Y	S/P	2	2G	Cont	No	T1	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Alkyl (C9-C15) phenyl propoxylate	z	S/P	3	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Alkyl (C8-C10) polyglucoside solution (65% or less)	Y	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	Y	S/P	3	2G	Cont	No			Yes	с	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Alkyl (C12-C14) polyglucoside solution (55% or less)	Y	S/P	3	2G	Cont	No			Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Alkyl (C12-C16) propoxyamine ethoxylate	х	S/P	2	2G	Cont	No	-	-	Yes	С	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.6

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Alkyl (C10-C20, saturated and unsaturated) phosphite	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Alkyl sulphonic acid ester of phenol	Y	Р	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Alkyl (C18+) toluenes	Υ	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.9
Alkyl (C18-C28) toluenesulphonic acid	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.17, 15.19, 16.2.6, 16.2.9
Alkyl (C18-C28) toluenesulphonic acid, calcium salts, borated	Y	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Alkyl (C18-C28) toluenesulphonic acid, calcium salts, low overbase	Y	S/P	2	2G	Cont	No	-	-	Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Alkyl (C18-C28) toluenesulphonic acid, calcium salts, high overbase	Y	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Allyl alcohol	Y	S/P	2	2G	Cont	No	T2	IIB	No	С	FT	AC	Yes	15.12, 15.17, 15.19
Allyl chloride	Υ	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19
Aluminium chloride/Hydrogen chloride solution	Y	S/P	2	2G	Cont	No	-	-	NF	С	т	No	Yes	15.11, 15.12, 15.17, 15.19
Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)	Y	S/P	2	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19
Aluminium sulphate solution	Y	S/P	2	2G	Cont	No			NF	С	Т	No	Yes	15.12, 15.17, 15.19
2-(2-Aminoethoxy) ethanol	z	S/P	3	2G	Cont	No			Yes	С	Т	AD	Yes	15.12, 15.17, 15.19
Aminoethyldiethanolamine/Aminoethylethanolamine solution	z	S/P	3	2G	Cont	No	-	-	Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Aminoethyl ethanolamine	z	S/P	3	2G	Cont	No	-	-	Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
N-Aminoethylpiperazine	z	S/P	3	2G	Cont	No			Yes	С	т	AC	Yes	15.12, 15.17, 15.19

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2-Amino-2-methyl-1-propanol	Ζ	S/P	3	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Ammonia aqueous (28% or less)	Y	S/P	2	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19
Ammonium chloride solution (less than 25%) (*)	z	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	
Ammonium hydrogen phosphate solution	Z	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Ammonium lignosulphonate solutions	z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9
Ammonium nitrate solution (93% or less) (*)	z	S/P	2	1G	Cont	No			NF	R	т	No	No	15.2, 15.11.4, 15.11.6, 15.12.3, 15.12.4, 15.18, 15.19.6, 16.2.9
Ammonium polyphosphate solution	z	Ρ	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Ammonium sulphate solution	z	Р	3	2G	Open	No			NF	0	No	No	No	
Ammonium sulphide solution (45% or less) (*)	Y	S/P	2	2G	Cont	Inert	T4	IIB	No	С	FT	AC	No	15.12, 15.17, 15.19, 16.6.1, 16.6.2, 16.6.3
Ammonium thiosulphate solution (60% or less)	z	S/P	3	2G	Open	No			NF	0	No	No	No	
Amyl acetate (all isomers)	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
n-Amyl alcohol	z	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	ABC	Yes	15.12, 15.17, 15.19
Amyl alcohol, primary	z	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6

RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS

f

2G

2G

2G

2G

2G

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d

Z S/P 3

X S/P 2

S/P 2

S/P 3

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Υ Р

X S/P

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Y S/P 3

Y S/P 3

Y S/P 2

S/P 2

S/P 3

S/P 2

S/P 2

2

X S/P 2

X S/P

Y

Y

Y

Х

а

Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)

Barium long chain (C11-C50) alkaryl sulphonate

Benzene and mixtures having 10% benzene or more (i)

Bio-fuel blends of Diesel/gas oil and FAME (>25% but <99%

Bio-fuel blends of Diesel/gas oil and vegetable oil (>25% but

Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but

sec-Amyl alcohol

tert-Amyl alcohol

Aniline

tert-Amyl ethyl ether

tert-Amyl methyl ether

Aryl polyolefins (C11-C50)

Benzene sulphonyl chloride

Benzyl acetate

Benzyl alcohol

Benzyl chloride

<99% by volume)

<99% by volume)

by volume)

Benzenetricarboxylic acid, trioctyl ester

- 14 -

No

h

i'

T2

T2

Т3

T2 IIΒ

T1 IIA

T3 IIA

T1 IIA

T1 IIA

T3

i''

IIA

IIA

IIA

i'''

No

No

No

No

Yes

Yes

No

Yes

No

Yes

Yes

Yes

Yes

No

Yes

Yes

IIA No

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R F

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Yes

No

No

No

15.19.6

15.19.6

15.19.6

16.2.9

16.2.6

16.2.6. 16.2.9

0

15.12.3, 15.12.4, 15.19.6

15.12.3, 15.12.4, 15.19.6

15.12, 15.17, 15.19

15.19.6, 16.2.6, 16.2.9

15.12.3, 15.12.4, 15.19,

15.12, 15.17, 15.19.6,

Yes 15.12, 15.17, 15.19, 16.2.9

15.12.3, 15.12.4, 15.19.6,

15.12.3, 15.12.4, 15.19.6

15.12.3, 15.12.4, 15.19.6

15.12, 15.13, 15.17, 15.19

15.12, 15.17, 15.19.6

15.12, 15.17, 15.19.6

15.12, 15.17, 15.19.6

CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

g

Cont

Cont

Cont

Cont

Cont

2G Open No

Cont

Cont

2G Cont

2G Cont

2G Cont

2G Cont

Cont

Cont

Cont

2G Cont

2G Cont

2G

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2G

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Bis (2-ethylhexyl) terephthalate	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters	z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Bromochloromethane	Ζ	Р	3	2G	Open	No			NF	0	No	No	No	
Butene oligomer	Х	Ρ	2	2G	Cont	No	T4	IIB	No	R	F	ABC	No	15.19.6
2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)	Y	S/P	2	2G	Cont	No			Yes	С	т	AC	No	15.12.3, 15.12.4, 15.19
Butyl acetate (all isomers)	Y	Р	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
Butyl acrylate (all isomers)	Y	S/P	3	2G	Cont	No	T2	IIB	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
tert-Butyl alcohol	Ζ	Р	3	2G	Cont	No	T1	IIA	No	R	F	AC	No	15.19.6
Butylamine (all isomers)	Υ	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19
Butylbenzene (all isomers)	х	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Butyl benzyl phthalate	Х	S/P	2	2G	Cont	No			Yes	С	Т	AC	No	15.12, 15.17, 15.19.6
Butyl butyrate (all isomers)	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	Y	S/P	2	2G	Open	No	тз	IIA	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
Butylene glycol	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	

а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
1,2-Butylene oxide	Y	S/P	3	2G	Cont	Inert	T2	IIB	No	с	FT	AC	No	15.8.1 to 15.8.7, 15.8.12, 15.8.13, 15.8.16, 15.8.17, 15.8.18, 15.8.19, 15.8.21, 15.8.25, 15.8.27, 15.8.29, 15.12, 15.17, 15.19.6
n-Butyl ether	Υ	S/P	3	2G	Cont	Inert	T4	IIB	No	R	F	AC	No	15.4.6, 15.19
Butyl methacrylate	z	S/P	3	2G	Cont	No	тз	IIA	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
n-Butyl propionate	Y	Ρ	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Butyraldehyde (all isomers)	Y	S/P	3	2G	Cont	No	ТЗ	IIA	No	R	F	AC	No	15.19.6
Butyric acid	Y	S/P	3	2G	Cont	No			Yes	0	No	AC	No	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6
gamma-Butyrolactone	Υ	S/P	3	2G	Cont	No			Yes	С	Т	ABC	No	15.12, 15.17, 15.19.6
Calcium alkaryl sulphonate (C11-C50)	z	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	
Calcium alkyl (C10-C28) salicylate	Y	S/P	2	2G	Cont	No	-	-	Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Calcium hydroxide slurry	Y	S/P	2	2G	Cont	No	-	-	Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6,16.2.9
Calcium hypochlorite solution (15% or less)	Y	S/P	2	2G	Cont	No			NF	R	Т	No	No	15.12.3, 15.12.4, 15.19.6
Calcium hypochlorite solution (more than 15%)	x	S/P	1	2G	Cont	No			NF	R	Т	No	No	15.12.3, 15.12.4, 15.19
Calcium lignosulphonate solutions	z	Ρ	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Calcium long-chain alkyl (C5-C10) phenate	Y	Ρ	3	2G	Open	No			Yes	0	No	AC	No	15.19.6

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RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	Ι	n	0
Calcium long-chain alkyl (C11-C40) phenate	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Calcium long-chain alkyl phenate sulphide (C8-C40)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Calcium long-chain alkyl salicylate (C13+)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Calcium long-chain alkyl (C18-C28) salicylate	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Calcium nitrate/Magnesium nitrate/Potassium chloride solution	z	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Calcium nitrate solution (50% or less)	z	s	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Camelina oil	Υ	S/P	2(k)	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7
epsilon-Caprolactam (molten or aqueous solutions)	z	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Carbolic oil	Y	S/P	2	2G	Cont	No			Yes	С	FT	ABC	Yes	15.12, 15.17, 15.19, 16.2.9
Carbon disulphide	Y	S/P	1	1G	Cont	Pad+inert	Т6	IIC	No	С	FT	С	Yes	15.3, 15.12, 15.17, 15.18, 15.19
Carbon tetrachloride	Y	S/P	2	2G	Cont	No			NF	С	Т	No	No	15.12, 15.17, 15.19.6
Cashew nut shell oil (untreated)	Y	S/P	2	2G	Cont	No			Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.7, 16.2.9
Castor oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Cesium formate solution (*)	Y	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	15.19.6
Cetyl/Eicosyl methacrylate mixture	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.13, 15.19.6, 16.2.9, 16.6.1, 16.6.2
Chlorinated paraffins (C10-C13)	x	S/P	1	2G	Cont	No			NF	С	Т	No	No	15.12, 15.17, 15.19, 16.2.6

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)	x	S/P	1	2G	Cont	No	-	-	Yes	с	т	AC	No	15.12, 15.17, 15.19
Chloroacetic acid (80% or less)	Y	S/P	2	2G	Cont	No			NF	с	т	No	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.17, 15.18, 15.19, 16.2.9
Chlorobenzene	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Chloroform	Υ	S/P	3	2G	Cont	No			NF	С	Т	No	No	15.12, 15.17, 15.19.6
Chlorohydrins (crude)	Υ	S/P	2	2G	Cont	No	Т3	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	Y	S/P	2	2G	Cont	No			NF	R	Т	No	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
o-Chloronitrobenzene	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	No	15.12.3, 15.12.4, 15.19, 16.2.6, 16.2.9
1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one	Y	S/P	2	2G	Open	No			Yes	0	No	ABD	No	15.19.6, 16.2.6, 16.2.9
2- or 3-Chloropropionic acid	z	S/P	2	2G	Cont	No			Yes	с	т	AC	No	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12.3, 15.12.4, 15.19, 16.2.9
Chlorosulphonic acid	Y	S/P	1	2G	Cont	No			NF	с	т	No	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.5, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.16.2, 15.17, 15.18, 15.19
m-Chlorotoluene	Υ	S/P	2	2G	Cont	No	T4	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19
o-Chlorotoluene	Υ	Ρ	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
p-Chlorotoluene	Y	Ρ	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6, 16.2.9
Chlorotoluenes (mixed isomers)	Y	Ρ	2	2G	Cont	No	Т4	IIA	No	R	F	ABC	No	15.19.6
Choline chloride solutions	z	Ρ	3	2G	Open	No			Yes	0	No	AC	No	

Cresylic acid, sodium salt solution

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Yes 15.12, 15.17, 15.19, 16.2.9

C FT

AC

T4 IIB No

15.19, 16.2.9

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Citric acid (70% or less)	Z	S/P	3	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Coal tar	x	S/P	2	2G	Cont	No	T2	IIA	Yes	с	т	BD	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Coal tar naphtha solvent	Y	S/P	2	2G	Cont	No	Т3	IIA	No	с	FT	ABC	No	15.12, 15.17, 15.19.6, 16.2.9
Coal tar pitch (molten) (*)	x	S/P	2	1G	Cont	No	T2	IIA	Yes	с	т	ABCD	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Cocoa butter	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Coconut oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Coconut oil fatty acid	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Coconut oil fatty acid methyl ester	Y	Р	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Copper salt of long chain (C17+) alkanoic acid	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Corn Oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Cotton seed oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Creosote (coal tar)	x	S/P	1	2G	Cont	No	T2	IIA	Yes	с	т	AD	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Cresols (all isomers)	Y	S/P	1	2G	Cont	No	T1	IIA	Yes	с	Т	ABC	Yes	15.12, 15.18, 15.19, 16.2
Cresol/Phenol/Xylenol mixture	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19
Cresylic acid, dephenolized	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.19

2G Cont No

Y S/P 2

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15.12.3, 15.12.4, 15.19,

15.12.3, 15.12.4, 15.19.6

15.12.3, 15.12.4, 15.19.6,

16.2.6, 16.2.9

15.19.6

15.19.6

15.19.6

16.2.9

15.19.6

R FT

R F

R F

RF

R FT

R T

R F

AC

AC

AC

AC

ABC

AC

AC

No

No

No

No

No

No

No

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Crotonaldehyde	x	S/P	1	1G	Cont	No	Т3	IIB	No	с	FT	AC	Yes	15.12, 15.17, 15.18, 15.19
1,5,9-Cyclododecatriene	x	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.13, 15.19.6, 16.6.1, 16.6.2
Cycloheptane	х	S/P	2	2G	Cont	No	T4	IIA	No	R	F	AC	No	15.19.6
Cyclohexane	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6, 16.2.9
Cyclohexane-1,2-dicarboxylic acid, diisononyl ester	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Cyclohexane oxidation products, sodium salts solution	Z	Ρ	3	2G	Open	No			NF	0	No	No	No	
Cyclohexanol	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Cyclohexanone	Ζ	S/P	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
Cyclohexanone, Cyclohexanol mixture	Y	S/P	3	2G	Cont	No			Yes	R	F	AC	No	15.19.6
Cyclohexyl acetate	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Cyclohexylamine	Y	S/P	3	2G	Cont	No	Т3	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19

2G Cont No

No

No

No

2G Cont

2G Cont

Cont

2G Cont No

2G Cont No

2G Cont No

2G

T1

T2

T2 IIA

T2

T3

IIΒ No

IIA

IIA

IIA

T3 IIA

No

No

No

No

Yes

No

Y S/P 2

Ρ

S/P 3

S/P 2

Y S/P 2

X S/P 2

X P

2

2

Y

Υ

Υ

1,3-Cyclopentadiene dimer (molten)

Cyclopentane

Cyclopentene

Decanoic acid

Decene

Decahydronaphthalene

p-Cymene

RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS

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CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

а	с	d	е	f	g	h	i	i"	i'''	j	k	I	n	0
Decyl acrylate	x	S/P	1	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.13, 15.19, 16.6.1, 16.6.2
Decyl alcohol (all isomers)	Y	Р	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9(e)
Decyl/Dodecyl/Tetradecyl alcohol mixture	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Decyloxytetrahydrothiophene dioxide	x	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Diacetone alcohol	z	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Dialkyl (C8-C9) diphenylamines	z	Р	3	2G	Open	No			Yes	0	No	ABC	No	
Dialkyl (C7-C13) phthalates	x	S/P	2	2G	Cont	No			Yes	с	Т	ABC	No	15.12, 15.17, 15.19.6, 16.2.6
Dialkyl (C9-C10) phthalates	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Dialkyl thiophosphates sodium salts solution	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
2,6-Diaminohexanoic acid phosphonate mixed salts solution	z	S/P	3	2G	Cont	No			NF	R	No	No	No	15.11, 15.17, 15.19.6
Dibromomethane	Y	S/P	2	2G	Open	No			NF	0	No	No	No	15.19.6
Dibutylamine	Y	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	ABC	Yes	15.12, 15.17, 15.19
Dibutyl hydrogen phosphonate	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
2,6-Di-tert-butylphenol	Х	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.9
Dibutyl phthalate	Х	S/P	2	2G	Cont	No			Yes	С	Т	AC	No	15.12, 15.17, 15.19.6
Dibutyl terephthalate	Υ	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.9

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Y S/P 2

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- 22 -

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16.2.9

15.16.2, 15.17, 15.19,

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ü		u			9		•		•	J	n			0
Dichlorobenzene (all isomers)	x	S/P	2	2G	Cont	No	T1	IIA	Yes	с	т	ABD	No	15.12, 15.17, 15.19.6
3,4-Dichloro-1-butene	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
1,1-Dichloroethane	Ζ	S/P	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
Dichloroethyl ether	Y	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.18, 15.19
1,6-Dichlorohexane	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
2,2'-Dichloroisopropyl ether	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19
Dichloromethane	Y	S/P	3	2G	Cont	No	T1	IIA	No	С	FT	ABC	No	15.12, 15.17, 15.19.6
2,4-Dichlorophenol	Y	S/P	2	2G	Cont	Dry			Yes	С	т	AD	Yes	15.12, 15.16.2, 15.17, 15.19, 16.2.6, 16.2.9
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	Y	S/P	3	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19, 16.2.9
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)	Y	S/P	3	2G	Cont	No			NF	с	т	No	Yes	15.12, 15.17, 15.19, 16.2.9
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	Y	S/P	3	2G	Cont	No			NF	с	т	No	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
1,1-Dichloropropane	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
1,2-Dichloropropane	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
1,3-Dichloropropene	Х	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	ABC	Yes	15.12, 15.17, 15.19
Dichloropropene/Dichloropropane mixtures	x	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	ABD	No	15.12, 15.17, 15.19
2,2-Dichloropropionic acid	Y	S/P	2	2G	Cont	Dry			Yes	с	т	AD	Yes	15.11.2, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12,

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	Ι	n	0
Dicyclopentadiene, Resin Grade, 81-89%	Y	S/P	2	2G	Cont	Inert	Т2	IIB	No	С	FT	ABC	Yes	15.12, 15.13, 15.17, 15.19
Diethanolamine	Y	S/P	3	2G	Cont	No	T1	IIA	Yes	С	т	AC	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Diethylamine	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19
Diethylaminoethanol	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
2,6-Diethylaniline	Y	S/P	2	2G	Cont	No			Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Diethylbenzene	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Diethylene glycol	z	S/P	3	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6
Diethylene glycol dibutyl ether	z	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Diethylene glycol diethyl ether	z	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Diethylene glycol phthalate	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Diethylenetriamine	Υ	S/P	3	2G	Cont	No	-	-	Yes	С	Т	ABC	No	15.12, 15.17, 15.19
Diethylenetriaminepentaacetic acid, pentasodium salt solution	z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Diethyl ether (*)	Ζ	S/P	2	1G	Cont	Inert	T4	IIB	No	R	F	AC	No	15.4, 15.14, 15.19
Di-(2-ethylhexyl) adipate	Υ	S/P	2	2G	Cont	No			Yes	С	Т	ABC	No	15.12, 15.17, 15.19.6
Di-(2-ethylhexyl) phosphoric acid	Y	S/P	2	2G	Cont	No			Yes	R	т	AD	No	15.12.3, 15.12.4, 15.19.6
Diethyl phthalate	Υ	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19.6
Diethyl sulphate	Υ	S/P	2	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Diglycidyl ether of bisphenol A	х	S/P	2	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

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а	С	d	е	f	g	h	i	i"	i'''	j	k	I	n	0
Diglycidyl ether of bisphenol F	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6, 16.2.6
Diheptyl phthalate	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Di-n-hexyl adipate	Х	S/P	1	2G	Open	No			Yes	0	No	AC	No	15.19
Dihexyl phthalate	Y	S/P	2	2G	Cont	No			Yes	С	Т	ABC	No	15.12, 15.17, 15.19.6
Diisobutylamine	Y	S/P	2	2G	Cont	No	T4	IIB	No	С	FT	ABC	No	15.12.3, 15.12.4, 15.19
Diisobutylene	Y	Ρ	2	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
Diisobutyl ketone	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Diisobutyl phthalate	Х	S/P	2	2G	Cont	No			Yes	С	Т	AC	No	15.12, 15.17, 15.19.6
Diisononyl adipate	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
Diisooctyl phthalate	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Diisopropanolamine	Z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9
Diisopropylamine	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.17, 15.19.6
Diisopropylbenzene (all isomers)	x	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Diisopropylnaphthalene	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
N,N-Dimethylacetamide	z	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
N,N-Dimethylacetamide solution (40% or less)	z	S/P	3	2G	Cont	No			NF	R	т	No	No	15.12.3, 15.12.4, 15.19.6
Dimethyl adipate	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Dimethylamine solution (45% or less)	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19
Dimethylamine solution (greater than 45% but not greater than 55%)	Y	S/P	3	2G	Cont	No	T2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Dimethylamine solution (greater than 55% but not greater than 65%)	Y	S/P	3	2G	Cont	No	Т2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.14, 15.19
N,N-Dimethylcyclohexylamine	Y	S/P	2	2G	Cont	No	Т3	IIB	No	С	FT	AC	Yes	15.12, 15.17, 15.19
Dimethyl disulphide	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
N,N-Dimethyldodecylamine	Y	S/P	2	2G	Cont	No			Yes	С	т	ABC	Yes	15.12, 15.17, 15.19
Dimethylethanolamine	Y	S/P	3	2G	Cont	No	Т3	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Dimethylformamide	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
Dimethyl glutarate	Y	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Dimethyl hydrogen phosphite	Y	S/P	3	2G	Cont	No	T4	IIB	No	R	F	AC	No	15.19.6
Dimethyl octanoic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Dimethyl phthalate	Υ	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Dimethylpolysiloxane	Υ	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
2,2-Dimethylpropane-1,3-diol (molten or solution)	z	Ρ	3	2G	Open	No	-	-	Yes	0	No	ABC	No	16.2.9
Dimethyl succinate	Υ	Р	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Dinitrotoluene (molten)	x	S/P	2	2G	Cont	No			Yes	С	т	AC	No	15.12, 15.17, 15.19, 15.21, 16.2.6, 16.2.9, 16.6.4
Dinonyl phthalate	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
Dioctyl phthalate	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
1,4-Dioxane	Y	S/P	3	2G	Cont	No	T2	IIB	No	С	FT	AC	No	15.12, 15.17, 15.19.6, 16.2.9

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Dipentene	Y	S/P	2	2G	Cont	No	тз	IIA	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Diphenyl	Х	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Diphenylamine (molten)	Υ	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Diphenylamine, reaction product with 2,2,4-Trimethylpentene	Y	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19, 16.2.6
Diphenylamines, alkylated	Y	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19, 16.2.6, 16.2.9
Diphenyl/Diphenyl ether mixtures	х	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Diphenyl ether	Х	Ρ	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Diphenyl ether/Diphenyl phenyl ether mixture	х	Ρ	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Diphenylmethane diisocyanate	Y	S/P	2	2G	Cont	Dry	-	-	Yes(a)	С	T(a)	AB(b)D	Yes	15.12, 15.16.2, 15.17, 15.19, 16.2.6, 16.2.9
Diphenylol propane-epichlorohydrin resins	х	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Di-n-propylamine	Y	S/P	2	2G	Cont	No	тз	IIB	No	С	FT	AC	Yes	15.12.3, 15.12.4, 15.17, 15.19.6
Dipropylene glycol	Ζ	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Dithiocarbamate ester (C7-C35)	x	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Ditridecyl adipate	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Ditridecyl phthalate	Υ	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
Diundecyl phthalate	Υ	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Dodecane (all isomers)	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	ABC	No	15.19.6

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15.19.6, 16.2.6

15.12, 15.17, 15.19

Yes 15.12, 15.17, 15.19, 16.2.9

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а	с	d	е	f	g	h	i'	i''	i'''	j	k	I	n	0
tert-Dodecanethiol	Y	S/P	3	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
1-Dodecene	Υ	S/P	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Dodecene (all isomers)	х	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Dodecyl alcohol	Υ	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
n-Dodecyl mercaptan	Х	S/P	1	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
Dodecylamine/Tetradecylamine mixture	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.9
Dodecylbenzene	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Dodecyl diphenyl ether disulphonate solution	x	S/P	2	2G	Cont	No			NF	с	т	No	Yes	15.12, 15.17, 15.19, 16.2.6
Dodecyl hydroxypropyl sulphide	х	Ρ	2	2G	Open	No			Yes	0	No	AC	No	15.19.6
Dodecyl methacrylate	Υ	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.13, 15.19.6
Dodecyl/Octadecyl methacrylate mixture	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.13, 15.19.6, 16.2.6, 16.6.1, 16.6.2
Dodecyl/Pentadecyl methacrylate mixture	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
Dodecyl phenol	x	S/P	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.6

2G Open No

2G Open No

2G Open No

No

No

2G Cont

2G Cont

O No

O No

O No

C FT

C FT

ABC

No

No

AC

AC

No

No

Yes

Yes 15.19.6

15.19.6

Yes

NF

NF

No

Yes

T2 IΙΒ

T2

IIA

Y S/P 2

X S/P 2

Z S/P 3

Y S/P 2

Y S/P 3

Dodecyl Xylene

Epichlorohydrin

Ethanolamine

Drilling brines (containing zinc chloride)

Drilling brines (containing calcium bromide)

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	ο
2-Ethoxyethyl acetate	Y	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
Ethoxylated long chain (C16+) alkyloxyalkylamine	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.9
Ethoxylated tallow amine (>95%)	x	S/P	2	2G	Cont	Inert	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Ethyl acetate	Ζ	S/P	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Ethyl acetoacetate	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	
Ethyl acrylate	Y	S/P	2	2G	Cont	No	Т2	IIB	No	с	FT	AC	No	15.12, 15.13, 15.17 , 15.19, 16.6.1, 16.6.2
Ethylamine (*)	Y	S/P	2	1G	Cont	No	T2	IIA	No	С	F	AC	No	15.12.3.2, 15.14, 15.19
Ethylamine solutions (72% or less)	Y	S/P	3	2G	Cont	No	Т2	IIA	No	с	F	AC	No	15.12.3.2, 15.14, 15.19
Ethyl amyl ketone	Y	S/P	2	2G	Cont	No	Т2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Ethylbenzene	Y	S/P	2	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
Ethyl tert-butyl ether	Y	S/P	2	2G	Cont	No	Т2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Ethyl butyrate	Y	S/P	2	2G	Cont	No	Т2	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Ethylcyclohexane	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
N-Ethylcyclohexylamine	Y	S/P	2	2G	Cont	No	Т3	IIB	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19
S-Ethyl dipropylthiocarbamate	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6, 16.2.9
Ethylene carbonate	z	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Ethylene chlorohydrin	Y	S/P	1	2G	Cont	No	T2	IIA	No	с	FT	AC	Yes	15.12, 15.17, 15.18, 15.19
Ethylene cyanohydrin	Y	S/P	2	2G	Cont	No		IIB	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6

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а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Ethylenediamine	Y	S/P	2	2G	Cont	No	T2	IIA	No	с	FT	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Ethylenediaminetetraacetic acid, tetrasodium salt solution	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Ethylene dibromide	Y	S/P	2	2G	Cont	No			NF	с	т	No	No	15.12, 15.17, 15.19, 16.2.9
Ethylene dichloride	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	ABC	No	15.12, 15.17, 15.19
Ethylene glycol	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6
Ethylene glycol acetate	Υ	S/P	3	2G	Cont	No	-	-	Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Ethylene glycol butyl ether acetate	Y	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6
Ethylene glycol diacetate	Υ	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19.6
Ethylene glycol methyl ether acetate	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6
Ethylene glycol monoalkyl ethers	Y	S/P	3	2G	Cont	No	T2	IIB	No	с	FT	AC	No	15.12.3, 15.12.4, 15.19, 16.2.9
Ethylene glycol phenyl ether	z	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9,
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture	z	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Ethylene glycol (>75%)/sodium alkyl carboxylates/borax mixture	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6
Ethylene glycol (>85%)/sodium alkyl carboxylates mixture	z	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass	Y	S/P	2	1G	Cont	Inert	T2	IIB	No	с	FT	AC	Yes	15.8, 15.12, 15.14, 15.17, 15.19
Ethylene-vinyl acetate copolymer (emulsion)	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

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	-	_	_		_		_							
a	C	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Ethyl-3-ethoxypropionate	Y	Р	2	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
2-Ethylhexanoic acid	Y	S/P	3	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
2-Ethylhexyl acrylate	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.13, 15.19.6, 16.6.1, 16.6.2
2-Ethylhexylamine	Υ	S/P	2	2G	Cont	No	T3	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19.6
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Ethylidene norbornene	Y	S/P	2	2G	Cont	No	тз	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Ethyl methacrylate	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
N-Ethylmethylallylamine	Y	S/P	2	2G	Cont	No	T2	IIB	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19
Ethyl propionate	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
2-Ethyl-3-propylacrolein	Υ	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6, 16.2.9
Ethyl toluene	Υ	Р	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
Fatty acid (saturated C13+)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Fatty acid methyl esters (m)	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Fatty acids, (C8-C10)	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Fatty acids, (C12+)	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Fatty acids, (C16+)	Υ	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6

2G Cont No

Y S/P 3

Ferric chloride solutions

15.11, 15.12, 15.17, 15.19, 16.2.9

с т

No

Yes

NF

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15.19, 16.2.9

15.19, 16.2.9

Yes

No

Yes

Yes

No

C FT(g) AC

AC

AC

AC

ABC

R T(g)

CFT

СТ

R T

15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8,

15.12.3, 15.12.4, 15.17,

15.11.2, 15.11.3, 15.11.4,

15.11.6, 15.11.7, 15.11.8,

15.12.3, 15.12.4, 15.19.6

15.12.3, 15.12.4, 15.19.6

15.12, 15.17, 15.19

15.12, 15.17, 15.19

а	С	d	е	f	g	h	i'	i''	i'''	j	k	I	n	0
Ferric nitrate/Nitric acid solution	Y	S/P	2	2G	Cont	No			NF	С	т	No	Yes	15.11, 15.12, 15.17, 15.19
Fish oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Fish silage protein concentrate (containing 4% or less formic acid)	Y	Ρ	2	2G	Open	No			NF	0	No	No	No	15.19.6, 16.2.6
Fish protein concentrate (containing 4% or less formic acid)	Z	Ρ	3	2G	Open	No	-	-	NF	0	No	No	No	
Fluorosilicic acid solution (20-30%)	Y	S/P	3	2G	Cont	No			NF	С	т	No	Yes	15.11, 15.12, 15.17, 15.19
Formaldehyde solutions (45% or less)	Y	S/P	3	2G	Cont	No	T2	IIB	No	С	FT	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Formamide	Y	S/P	3	2G	Cont	No			Yes	С	т	AC	No	15.12, 15.17, 15.19.6, 16.2.9
Formic acid (85% or less acid)	Y	S/P	3	2G	Cont	No	-	-	Yes	с	T(g)	AC	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12.3, 15.12.4, 15.17,

2G Cont No

2G Cont

2G Cont

2G Cont

Cont

2G

No

No

No

No

T1

T2

IIΒ

IIA No

Yes

No

Yes

Yes

Y S/P 3

S/P 3

S/P 3

S/P 3

Z S/P 3

Ζ

Υ

Y

Formic acid (over 85%)

up to 25% sodium formate)

Furfural

Furfuryl alcohol

10% amines)

Formic acid mixture (containing up to 18% propionic acid and

Glucitol/glycerol blend propoxylated (containing less than

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Glucitol/glycerol blend propoxylated (containing 10% or more amines)	Y	S/P	2	2G	Cont	No			Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Glutaraldehyde solutions (50% or less)	Y	S/P	3	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19
Glycerine	Ζ	S	3	2G	Open	No			Yes	0	No	AC	No	16.2.9
Glycerol monooleate	Υ	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6, 16.2.6, 16.2.9
Glycerol propoxylated	z	S/P	3	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Glycerol, propoxylated and ethoxylated	z	Р	3	2G	Open	No	-	-	Yes	0	No	ABC	No	
Glycerol/sucrose blend propoxylated and ethoxylated	z	Р	3	2G	Open	No	-	-	Yes	0	No	ABC	No	
Glyceryl triacetate	Ζ	S/P	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Glycidyl ester of C10 trialkylacetic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Glycine, sodium salt solution	z	S/P	3	2G	Open	No			NF	0	No	No	No	
Glycolic acid solution (70% or less)	z	S/P	3	2G	Cont	No	-	-	NF	С	т	No	Yes	15.12.3, 15.12.4, 15.17, 15.19, 16.2.9
Glyoxal solution (40% or less)	Y	S/P	3	2G	Cont	No			Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Glyoxylic acid solution (50% or less)	Y	S/P	3	2G	Cont	No	-	-	Yes	С	т	ACD	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.17, 15.19, 16.2.9, 16.6.1, 16.6.2, 16.6.3
Glyphosate solution (not containing surfactant)	Y	S/P	2	2G	Cont	No			Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Grape Seed Oil	Υ	S/P	2(k)	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7
Groundnut oil	Y	Ρ	2(k)	2G	Open		-	-	Yes		No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Heptane (all isomers)	Х	Ρ	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6

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15.12, 15.17, 15.19.6,

Yes 15.11, 15.12, 15.17, 15.19

16.2.6, 16.2.9

СТ

СТ

ABC

No

No

Yes

NF

-

а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
n-Heptanoic acid	Ζ	S/P	3	2G	Cont	No			Yes	R	No	ABC	No	15.19.6, 15.17
Heptanol (all isomers) (d)	Y	S/P	3	2G	Cont	No	ТЗ	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Heptene (all isomers)	Y	Ρ	2	2G	Cont	No	Т3	IIA	No	R	F	ABC	No	15.19.6
Heptyl acetate	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Hexamethylenediamine (molten)	Y	S/P	3	2G	Cont	No	-	-	Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Hexamethylenediamine adipate (50% in water)	z	Р	3	2G	Open	No			Yes	0	No	AC	No	
Hexamethylenediamine solution	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19
Hexamethylene diisocyanate	Y	S/P	2	2G	Cont	Dry	T1	IIB	Yes	с	т	AC(b)D	Yes	15.12, 15.16.2, 15.17, 15.18, 15.19
Hexamethylene glycol	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	
Hexamethyleneimine	Υ	S/P	2	2G	Cont	No	T2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19
Hexamethylenetetramine solutions	z	s	3	2G	Open	No			Yes	0	No	AC	No	15.19.6
Hexane (all isomers)	Υ	S/P	2	2G	Cont	No	Т3	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
1,6-Hexanediol, distillation overheads	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Hexanoic acid	Υ	S/P	3	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
Hexanol	Υ	S/P	2	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
Hexene (all isomers)	Υ	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Hexyl acetate	Υ	S/P	2	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
Hexylene glycol	Ζ	S	3	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19

2G Cont No

1G Cont No

X S/P 2

Z S/P 3

Hydrocarbon wax

Hydrochloric acid (*)

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а	С	d	е	f	g	h	i	i"	i'''	j	k	I	n	0
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	Y	S/P	2	2G	Cont	No			NF	R	т	No	No	15.5.1, 15.12.3, 15.12.4, 15.19.6
Hydrogen peroxide solutions (over 8% but not over 60% by mass)	Y	S/P	3	2G	Cont	No			NF	R	т	No	No	15.5.2, 15.18, 15.12.3, 15.12.4, 15.19.6
2-Hydroxyethyl acrylate	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6
2-Hydroxy-4-(methylthio)butanoic acid	z	S/P	3	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19
Illipe oil	Y	Ρ	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Isoamyl alcohol	z	S/P	3	2G	Cont	No	Т2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Isobutyl alcohol	Ζ	S/P	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Isobutyl formate	z	Ρ	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Isobutyl methacrylate	Z	S/P	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2
Isophorone	Υ	S/P	3	2G	Cont	No			Yes	R	Т	AC	No	15.12.3, 15.12.4, 15.19.6
Isophoronediamine	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Isophorone diisocyanate	Y	S/P	2	2G	Cont	Dry			Yes	с	т	ABD	Yes	15.12, 15.16.2, 15.17, 15.19
Isoprene	Y	S/P	2	2G	Cont	No	тз	IIB	No	с	FT	ABC	No	15.12, 15.13, 15.14, 15.17, 15.19.6, 16.6.1, 16.6.2
Isopropanolamine	Y	S/P	3	2G	Cont	No	Т2	IIA	Yes	R	No	AC	No	15.19.6, 16.2.6, 16.2.9
Isopropyl acetate	Ζ	Р	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
Isopropylamine	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12.3.2, 15.14, 15.19

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ο

AC

ABC

AC

ABC

AC

AC

O No

C FT

RT

R T

RT

No

No

No

No

No

No

16.2.9

20.7

16.2.9

16.2.6, 16.2.9

16.2.6, 16.2.9

15.19.6, 16.2.6, 16.2.9

15.12, 15.17, 15.19, 20.5.1,

15.12.3, 15.12.4, 15.19.6,

15.12.3, 15.12.4, 15.19.6,

15.12.3, 15.12.4, 15.19.6,

i' i'' i''' d f h k Т а С е g n CFT Y S/P 3 2G No T2 IIA AC Isopropylamine (70% or less) solution Cont No 15.12.3.2, 15.19 No S/P 2 2G Cont Т3 RF AC Isopropylcyclohexane Y No IIA No No 15.19.6, 16.2.9 15.4.6, 15.13, 15.19.6, RF S/P 3 T2 AC Y 2G Cont Inert IIA No No Isopropyl ether 16.6.1, 16.6.2 Ρ 2(k) 2G Open O No Y No ABC Yes No 15.19.6, 16.2.6, 16.2.7 СТ Ζ 2G AC S/P 3 Cont No Yes Yes 15.12, 15.17, 15.19 15.12, 15.13, 15.17, 15.18, Lactonitrile solution (80% or less) Y S/P 1 1G Cont No NF СТ Yes No 15.19, 16.6.1, 16.6.2, 16.6.3 15.19.6, 16.2.6, 16.2.7, O No S/P 2G Open No Y 2(k) Yes ABC No -16.2.9 O No Y S/P 2 2G Open No AC Latex, ammonia (1% or less)- inhibited Yes 15.19.6, 16.2.6, 16.2.9 _ No Latex: Carboxylated styrene-Butadiene copolymer; 2G Open Ζ S/P 3 O No AC No Yes No 16.2.9 Styrene-Butadiene rubber 15.12.3, 15.12.4, 15.19.6, 2G Cont X S/P 2 No R T AC Yes No 16.2.6, 16.2.9 Ligninsulphonic acid, magnesium salt solution ZP 3 2G Open No Yes O No AC No -O No

Ζ

Υ S/P

Р

X S/P 2

Y S/P 2

Y S/P 2

Y S/P 2

3

2(k)

2G

2G

2G

2G

Open No

No

No

No

No

No

Open

Cont

Cont

2G Cont

2G Cont

_

-

_

_

Yes

Yes

No

Yes

Yes

Yes

Jatropha oil

Lactic acid

Lard

Lauric acid

Linseed oil

Liquid chemical wastes

Ligninsulphonic acid, sodium salt solution

Long-chain alkaryl polyether (C11-C20)

Long-chain alkaryl sulphonic acid (C16-C60)

Long-chain alkylphenate/Phenol sulphide mixture

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a	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Long-chain alkylphenol (C14-C18)	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Long-chain alkylphenol (C18-C30)	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
L-Lysine solution (60% or less)	z	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Magnesium chloride solution	z	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Magnesium hydroxide slurry	z	S	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Magnesium long-chain alkaryl sulphonate (C11-C50)	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Magnesium long-chain alkyl salicylate (C11+)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Maleic anhydride	Y	S/P	3	2G	Cont	No			Yes	с	т	AC(f)	Yes	15.12, 15.17, 15.19, 16.2.9
Maleic anhydride-sodium allylsulphonate copolymer solution	z	Ρ	3	2G	Open	No			Yes	0	No	ABC	No	
Mango kernel oil	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Mercaptobenzothiazol, sodium salt solution	х	S/P	2	2G	Open	No			NF	0	No	No	No	15.19.6, 16.2.9
Mesityl oxide	z	S/P	3	2G	Cont	No	T2	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Metam sodium solution	Х	S/P	2	2G	Cont	No	-	-	NF	С	Т	No	No	15.12.3, 15.12.4, 15.19
Methacrylic acid	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	No	15.13, 15.12.3, 15.12.4, 15.19, 16.2.9, 16.6.1
Methacrylic acid - alkoxypoly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)	z	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9

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а	c	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Methacrylic resin in ethylene dichloride	Y	S/P	3	2G	Cont	No	T2	IIA	No	с	FT	ABC	No	15.12, 15.17, 15.19, 16.2.9
Methacrylonitrile	Y	S/P	2	2G	Cont	No	T1	IIA	No	С	FT	AC	Yes	15.12, 15.13, 15.17, 15.19
3-Methoxy-1-butanol	z	S/P	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.19.6
3-Methoxybutyl acetate	Υ	S/P	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide	х	S/P	1	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12,4, 15.19, 16.2.6
Methyl acetate	Ζ	Ρ	3	2G	Cont	No	T1	IIA	No	R	F	AC	No	15.19.6
Methyl acetoacetate	z	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Methyl acrylate	Y	S/P	3	2G	Cont	No	T1	IIB	No	С	FT	AC	No	15.12, 15.17, 15.13, 15.19
Methyl alcohol (*)	Y	S/P	3	2G	Cont	No	T1	IIA	No	с	FT	AC	No	15.12.1, 15.12.2, 15.12.3.2, 15.12.3.3, 15.12.4, 15.17, 15.19
Methylamine solutions (42% or less)	Y	S/P	2	2G	Cont	No	Т2	IIA	No	с	FT	AC	Yes	15.12, 15.17, 15.19
Methylamyl acetate	Υ	Ρ	2	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Methylamyl alcohol	z	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Methyl amyl ketone	Ζ	S/P	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
N-Methylaniline	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
alpha-Methylbenzyl alcohol with acetophenone (15% or less)	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Methylbutenol	Y	S/P	3	2G	Cont	No	Т4	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Methyl tert-butyl ether	z	Ρ	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Methyl butyl ketone	Y	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	ABC	No	15.12, 15.17, 15.19.6
Methylbutynol	Ζ	S/P	3	2G	Cont	No	T4	IIB	No	R	F	AC	No	15.19.6
Methyl butyrate	Y	S/P	3	2G	Cont	No	Т4	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Methylcyclohexane	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Methylcyclopentadiene dimer	Y	S/P	2	2G	Cont	No	T4	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Methylcyclopentadienyl manganese tricarbonyl	х	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.18, 15.19, 16.2.9
Methyl diethanolamine	Y	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
2-Methyl-6-ethyl aniline	Y	S/P	3	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Methyl ethyl ketone	Z	S/P	3	2G	Cont	No	T1	IIA	No	R	F	AC	No	15.19.6
2-Methyl-5-ethyl pyridine	Y	S/P	2	2G	Cont	No	-	-	Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
Methyl formate	Z	S/P	2	2G	Cont	No	T1	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.14, 15.19.6
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	Ζ	S/P	3	2G	Cont	No	-	-	Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
2-Methyl-2-hydroxy-3-butyne	z	S/P	3	2G	Cont	No	тз	IIA	No	R	F	AC	No	15.19.6, 16.2.9
Methyl isobutyl ketone	z	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Methyl methacrylate	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.13, 15.19.6
3-Methyl-3-methoxybutanol	z	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Methyl naphthalene (molten)	x	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
N-Methylglucamine solution (70% or less)	z	s	3	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
2-Methyl-1,3-propanediol	Z	Ρ	3	2G	Open	No	-	-	Yes	0	No	AC	No	

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c d e f g h i' i'' j k l n

а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
2-Methylpyridine	Z	S/P	3	2G	Cont	No	T1	IIA	No	С	F	AC	No	15.12.3.2, 15.19
3-Methylpyridine	Ζ	S/P	3	2G	Cont	No	T1	IIA	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19
4-Methylpyridine	z	S/P	3	2G	Cont	No	T1	IIA	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19, 16.2.9
N-Methyl-2-pyrrolidone	Υ	S/P	3	2G	Cont	No			Yes	С	Т	AC	No	15.12, 15.17, 15.19.6
Methyl propyl ketone	z	s	3	2G	Cont	No	T1	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Methyl salicylate	Υ	S/P	3	2G	Cont	No			Yes	С	Т	AC	No	15.12, 15.17, 15.19.6
alpha-Methylstyrene	Y	S/P	2	2G	Cont	No	T1	IIB	No	с	FT	AD(j)	No	15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
3-(methylthio)propionaldehyde	Y	S/P	2	2G	Cont	No	тз	IIA	No	R	FT	ABC	No	15.12, 15.17, 15.19.6
Molybdenum polysulphide long chain alkyl dithiocarbamide complex	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Morpholine	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12.3, 15.12.4, 15.19
Motor fuel anti-knock compound (containing lead alkyls)	х	S/P	1	1G	Cont	Inert	Т4	IIA	No	С	FT	AC	Yes	15.6, 15.12, 15.17, 15.18, 15.19
Myrcene	x	S/P	2	2G	Cont	No	Т3	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Naphthalene (molten)	х	S/P	2	2G	Cont	No	T1	IIA	Yes	С	т	ABC	No	15.12, 15.17, 15.19.6, 16.2.9
Naphthalene crude (molten)	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution	Z	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9
Neodecanoic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Nitrating acid (mixture of sulphuric and nitric acids)	Y	S/P	1	1G	Cont	No			NF	С	Т	No	Yes	15.11, 15.12, 15.16.2, 15.17, 15.18, 15.19

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15.12, 15.17, 15.19.6

Yes 15.12, 15.17, 15.19, 16.2.9

16.2.6, 16.2.7, 16.2.9

15.12.3, 15.12.4, 15.19.6,

15.12.3, 15.12.4, 15.19.6

15.19.6

15.19.6

СТ

R F

СТ

R T

R F

R T

IIΒ

Т3 IIA

-

T3

IIA

Yes

No

Yes

Yes

No

Yes

ABC

ABC

ABC

ABC

AC

AC

No

No

No

No

No

а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Nitric acid (70% and over)	Y	S/P	2	2G	Cont	No			NF	с	т	No	Yes	15.11, 15.12, 15.16.2, 15.17, 15.19
Nitric acid (less than 70%)	Y	S/P	2	2G	Cont	No			NF	С	т	No	Yes	15.11, 15.12, 15.17, 15.19
Nitrilotriacetic acid, trisodium salt solution	Y	S/P	3	2G	Cont	No			Yes	с	т	AC	No	15.12, 15.17, 15.19.6
Nitrobenzene	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	No	15.12, 15.17, 15.19, 16.2.9
Nitroethane	Y	S/P	3	2G	Cont	No	T2	IIB	No	R	FT	ABC(f)	No	15.12.3, 15.12.4, 15.19.6, 16.6.1, 16.6.2, 16.6.4
Nitroethane (80%)/ Nitropropane(20%)	Y	S/P	3	2G	Cont	No	T2	IIB	No	R	FT	ABC(f)	No	15.12.3, 15.12.4, 15.19.6, 16.6.1, 16.6.2, 16.6.3
Nitroethane, 1-Nitropropane (each 15% or more) mixture	Y	S/P	3	2G	Cont	No	T2	IIB	No	R	FT	ABC(f)	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.6.1, 16.6.2, 16.6.3
o-Nitrophenol (molten)	Υ	S/P	2	2G	Cont	No	T4	IIB	No	R	F	ABC	No	15.19.6, 16.2.6, 16.2.9
1- or 2-Nitropropane	Y	S/P	3	2G	Cont	No	T2	IIB	No	С	FT	AC	No	15.12, 15.17, 15.19
Nitropropane (60%)/Nitroethane (40%) mixture	Y	S/P	2	2G	Cont	No	T2	IIB	No	с	FT	ABC(f)	No	15.12, 15.17, 15.19.6

2G Cont

2G Cont

2G Cont

2G Cont

2G Cont

Cont

2G

No

No

No

No

No

No

Y S/P 2

X S/P 2

Y S/P 2

Y S/P 2

Y S/P 2

2

Υ Ρ

o- or p-Nitrotoluenes

Nonane (all isomers)

Nonene (all isomers)

Nonanoic acid (all isomers)

Nonyl alcohol (all isomers)

Non-edible industrial grade palm oil

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a	С	d	е	f	g	h	i	i"	i'''	j	k	I	n	0
Nonyl methacrylate monomer	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Nonylphenol	x	S/P	1	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Nonylphenol poly(4+)ethoxylate	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6
Noxious liquid, NF, (1) n.o.s. (trade name, contains) ST1, Cat. X	x	Ρ	1	2G	Open	No	-	-	Yes	0	No	AC	No	15.19, 16.2.6
Noxious liquid, F, (2) n.o.s. (trade name, contains) ST1, Cat. X	x	Ρ	1	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19, 16.2.6
Noxious liquid, NF, (3) n.o.s. (trade name, contains) ST2, Cat. X	x	Ρ	2	2G	Open	No	-		Yes	0	No	AC	No	15.19, 16.2.6
Noxious liquid, F, (4) n.o.s. (trade name, contains) ST2, Cat. X	x	Ρ	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19, 16.2.6
Noxious liquid, NF, (5) n.o.s. (trade name, contains) ST2, Cat. Y	Y	Ρ	2	2G	Open	No	-		Yes	0	No	AC	No	15.19, 16.2.6, 16.2.9(l)
Noxious liquid, F, (6) n.o.s. (trade name, contains) ST2, Cat. Y	Y	Ρ	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19, 16.2.6, 16.2.9(l)
Noxious liquid, NF, (7) n.o.s. (trade name, contains) ST3, Cat. Y	Y	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	15.19, 16.2.6, 16.2.9(l)
Noxious liquid, F, (8) n.o.s. (trade name, contains) ST3, Cat. Y	Y	Ρ	3	2G	Cont	No	T3	IIA	No	R	F	AC	No	15.19, 16.2.6, 16.2.9(l)

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Noxious liquid, NF, (9) n.o.s. (trade name, contains) ST3, Cat. Z	z	Ρ	3	2G	Open	No	-		Yes	0	No	AC	No	
Noxious liquid, F, (10) n.o.s. (trade name, contains) ST3, Cat. Z	z	Ρ	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Octamethylcyclotetrasiloxane	Y	Р	2	2G	Cont	No	Т2	IIA	No	R	F	AC	No	15.19.6, 16.2.9
Octane (all isomers)	Х	Р	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Octanoic acid (all isomers)	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	Yes	15.12, 15.17, 15.19
Octanol (all isomers)	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Octene (all isomers)	Υ	Р	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
n-Octyl acetate	Υ	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Octyl aldehydes	Υ	S/P	2	2G	Cont	No	T4	IIB	No	R	F	AC	No	15.19.6, 16.2.9
Octyl decyl adipate	Υ	S/P	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6, 16.2.9
n-Octyl mercaptan	Х	S/P	1	2G	Open	No			Yes	0	No	ABC	No	15.19
Offshore contaminated bulk liquid P (o)	Х	Р	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6
Offshore contaminated bulk liquid S (o)	Х	S/P	2	2G	Cont	No	Т3	IIA	No	С	FT	AC	Yes	15.12, 15.15, 15.17, 15.19
Olefin-Alkyl ester copolymer (molecular weight 2000+)	Υ	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Olefin Mixture (C7-C9) C8 rich, stabilised	х	Р	2	2G	Cont	No	тз	IIB	No	R	F	ABC	No	15.13, 15.19.6
Olefin mixtures (C5-C7)	Υ	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Olefin mixtures (C5-C15)	x	S/P	2	2G	Cont	No	Т3	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Olefins (C13+, all isomers)	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9

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а	с	d	е	f	g	h	i'	i''	i'''	j	k	I	n	0
alpha-Olefins (C6-C18) mixtures	x	S/P	2	2G	Cont	No	T4	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Oleic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Oleum	Y	S/P	2	2G	Cont	Dry	-	-	NF	с	т	No	Yes	15.11.2 to 15.11.8, 15.12, 15.16.2, 15.17, 15.19, 16.2.6
Oleylamine	х	S/P	2	2G	Cont	No			Yes	с	Т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Olive oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Oxygenated aliphatic hydrocarbon mixture	z	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	
Palm acid oil	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm fatty acid distillate	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm kernel acid oil	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm kernel fatty acid distillate	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm kernel oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm kernel olein	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm kernel stearin	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm mid-fraction	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm oil	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Palm oil fatty acid methyl ester	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6, 16.2.9
Palm olein	Y	Ρ	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9

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а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	ο
Palm stearin	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Paraffin wax, highly-refined	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Paraffin wax, semi-refined	x	S/P	2	2G	Cont	No	-	-	Yes	с	т	ABC	No	15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
Paraldehyde	Ζ	S/P	3	2G	Cont	No	Т3	IIB	No	R	F	AC	No	15.19.6, 16.2.9
Paraldehyde-ammonia reaction product	Y	S/P	2	2G	Cont	No	T1	IIB	No	С	FT	ABC	Yes	15.12, 15.17, 15.19
Pentachloroethane	Υ	S/P	2	2G	Cont	No			NF	С	Т	No	No	15.12, 15.17, 15.19.6
1,3-Pentadiene	Y	Ρ	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.13, 15.19.6, 16.6.1, 16.6.2, 16.6.3
1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures	Y	S/P	2	2G	Cont	Inert	тз	IIB	No	с	FT	ABC	Yes	15.12, 15.13, 15.17, 15.19
Pentaethylenehexamine	Х	S/P	2	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19
Pentane (all isomers)	Υ	Ρ	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	15.14, 15.19.6
Pentanoic acid	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.19
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.17, 15.19
Pentene (all isomers)	Υ	Ρ	2	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.14, 15.19.6
n-Pentyl propionate	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Perchloroethylene	Υ	S/P	2	2G	Cont	No			NF	С	Т	No	No	15.12, 15.17, 15.19.6
Phenol	Y	S/P	2	2G	Cont	No	T1	IIA	Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
1-Phenyl-1-xylyl ethane	Υ	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Phosphate esters, alkyl (C12-C14) amine	Y	S/P	2	2G	Cont	No	Т4	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

g

2G Cont No

f

е

3

d

Z S/P

YP

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Р

Υ Р

Υ

2

3

2

2

2G

2G

Open No

No

2G Open No

Open

2G Open No

С

а

Polyalkyl (C10-C18) methacrylate/ethylene-propylene

Phosphoric acid

copolymer mixture

Polybutene

Polyaluminium chloride solution

Polybutenyl succinimide

- 45 -

h

i' i'' i'''

NF

k

СТ

O No

O No

O No

O No

Yes

NF

Yes

Yes

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ABC

No

ABC

ABC

No

No

No

No

L

No

n

Yes

ο

15.11.1, 15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7,

15.12, 15.17, 15.19, 16.2.6,

15.19.6, 16.2.6, 16.2.9

15.12, 15.17, 15.19, 16.2.6,

15.12.3, 15.12.4, 15.19.6,

15.19.6, 16.2.6, 16.2.9

15.19.6, 16.2.6, 16.2.9

15.19.6, 16.2.6, 16.2.9

15.19.6, 16.2.6

15.11.8, 15.12, 15.17,

15.7, 15.19, 16.2.9

														15.19, 16.2.9
Phosphorus, yellow or white (*)	х	S/P	1	1G	Cont	Pad+(vent or inert)			No(c)	с	No	ABC	No	15.7, 15.19, 16
Phthalic anhydride (molten)	Y	S/P	2	2G	Cont	No	T1	IIA	Yes	с	т	ABC	Yes	15.12, 15.17, 1 16.2.9
alpha-Pinene	Х	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	ABC	No	15.19.6
beta-Pinene	Х	S/P	2	2G	Cont	No	T1	IIB	No	R	F	ABC	No	15.19.6
Pine oil	Х	S/P	2	2G	Open	No			Yes	0		ABC	No	15.19.6, 16.2.6
Piperazine, 68% solution	Y	S/P	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 1 16.2.9
Polyacrylic acid solution (40% or less)	Z	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Polyalkyl (C18-C22) acrylate in xylene	Y	S/P	2	2G	Cont	No	T1	IIB	No	R	FT	ABC	No	15.12.3, 15.12. 16.2.6,16.2.9
Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	Y	Р	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Polyalkyl (C10-C20) methacrylate	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6

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а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Poly(2+)cyclic aromatics	х	S/P	1	2G	Cont	No			Yes	С	т	ABC	No	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Polyether (molecular weight 1350+)	Y	Р	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Polyethylene glycol	Ζ	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Polyethylene glycol dimethyl ether	z	S/P	3	2G	Open	No			Yes	0	No	AC	No	
Poly(ethylene glycol) methylbutenyl ether (MW>1000)	z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9
Polyethylene polyamines	Y	S/P	2	2G	Cont	No	-	-	Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.6, 16.2.9
Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)	Y	S/P	2	2G	Cont	No			Yes	С	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Polyferric sulphate solution	Y	S/P	3	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)	z	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Polyisobutenamine in aliphatic (C10-C14) solvent	Y	S/P	2	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
(Polyisobutene) amino products in aliphatic hydrocarbons	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Polyisobutenyl anhydride adduct	z	S/P	3	2G	Open	No			Yes	0	No	ABC	No	
Poly(4+)isobutylene (MW>224)	х	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyisobutylene (MW≤224)	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9

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а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)	z	s	2	2G	Cont	No			Yes	с	т	AC	Yes	15.12, 15.17, 15.19. 16.2.9
Polymethylene polyphenyl isocyanate	Y	S/P	3	2G	Cont	Dry			Yes(a)	с	T(a)	AD	Yes	15.12, 15.16.2, 15.17, 15.19.6, 16.2.9
Polyolefin (molecular weight 300+)	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefin amide alkeneamine (C17+)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Polyolefin amide alkeneamine borate (C28-C250)	Υ	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefin amide alkeneamine polyol	Y	Р	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefinamine (C28-C250)	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Polyolefinamine in alkyl (C2-C4) benzenes	Y	S/P	2	2G	Cont	No	T2	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Polyolefinamine in aromatic solvent	Y	S/P	2	2G	Cont	No	T2	IIB	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Polyolefin aminoester salts (molecular weight 2000+)	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefin anhydride	Y	S/P	2	2G	Cont	No			Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Polyolefin ester (C28-C250)	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefin phenolic amine (C28-C250)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Polyolefin phosphorosulphide, barium derivative (C28-C250)	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Poly(20)oxyethylene sorbitan monooleate	Y	Ρ	3	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.6, 16.2.9

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Poly(5+)propylene	Υ	Р	3	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.9
Polypropylene glycol	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6
Polysiloxane	Y	Ρ	2	2G	Cont	No	T2	IIB	No	R	F	ABC	No	15.19.6, 16.2.9
Potassium chloride solution	z	Р	3	2G	Open	No	-	-	NF	0	No	No	No	16.2.9
Potassium hydroxide solution (*)	Y	S/P	3	2G	Open	No			NF	с	No	No	No	15.12.3.2, 15.19
Potassium formate solutions (*)	Z	S	3	2G	Open	No			NF	R	No	No	No	15.19.6
Potassium oleate	Υ	S/P	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.6, 16.2.9
Potassium thiosulphate (50% or less)	Y	S/P	3	2G	Cont	No			NF	R	т	No	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
n-Propanolamine	Y	S/P	3	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.9
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution	Y	Р	3	2G	Open	No	-	-	NF	0	No	No	No	15.19.6
beta-Propiolactone	Y	S/P	1	2G	Cont	No		IIA	Yes	С	т	AC	Yes	15.12, 15.17, 15.18, 15.19
Propionaldehyde	Υ	S/P	3	2G	Cont	Inert	T4	IIB	No	R	F	AC	No	15.19.6
Propionic acid	Y	S/P	3	2G	Cont	No	T1	IIA	No	с	FT	AC	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12, 15.17, 15.19
Propionic anhydride	Υ	S/P	2	2G	Cont	No	T2	IIA	Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Propionitrile	Y	S/P	1	1G	Cont	No	T1	IIB	No	с	FT	AC	Yes	15.12, 15.17, 15.18, 15.19
n-Propyl acetate	Y	Р	3	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
n-Propyl alcohol	Υ	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
n-Propylamine	z	S/P	2	2G	Cont	Inert	T2	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19
Propylbenzene (all isomers)	Y	Р	3	2G	Cont	No	T2	IIA	No	R	F	ABC	No	15.19.6
Propylene carbonate	Ζ	S	3	2G	Cont	No			Yes	С	Т	ABC	Yes	15.12, 15.17, 15.19

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а	с	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Propylene glycol methyl ether acetate	Z	Р	3	2G	Cont	No	T2	IIA	No	R	F	AC	No	
Propylene glycol monoalkyl ether	z	S/P	3	2G	Cont	No	Т3	IIA	No	R	F	AC	No	15.19.6
Propylene glycol phenyl ether	z	S/P	3	2G	Open	No			Yes	0	No	ABC	No	
Propylene oxide	Y	S/P	2	2G	Cont	Inert	T2	IIB	No	с	FT	AC	No	15.8, 15.12, 15.14, 15.17, 15.19
Propylene tetramer	Х	S/P	2	2G	Cont	No	Т3	IIA	No	R	F	ABC	No	15.19.6
Propylene trimer	Υ	S/P	2	2G	Cont	No	T3	IIA	No	R	F	ABC	No	15.19.6
Pyridine	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	FT	AC	No	15.12.3, 15.12.4, 15.19.6
Pyrolysis gasoline (containing benzene)	Y	S/P	2	2G	Cont	No	Т3	IIA	No	С	FT	ABC	No	15.12, 15.17, 15.19.6
Rapeseed oil	Y	Р	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Rapeseed oil (low erucic acid containing less than 4% free fatty acids)	Y	Ρ	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Rape seed oil fatty acid methyl esters	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Resin oil, distilled	Υ	S/P	2	2G	Cont	No	T1	IIA	No	С	FT	ABC	No	15.12, 15.17, 15.19.6
Rice bran oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Rosin	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
Safflower oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Shea butter	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Sodium alkyl (C14-C17) sulphonates (60-65% solution)	Y	S/P	2	2G	Cont	No			NF	R	т	No	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Sodium aluminosilicate slurry	z	Р	3	2G	Open	No			NF	0	No	No	No	16.2.9
Sodium benzoate	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	16.2.9
Sodium borohydride (15% or less)/Sodium hydroxide solution (*)	Y	S/P	3	2G	Open	No			NF	С	No	No	No	15.19, 16.2.6, 16.2.9
Sodium bromide solution (less than 50%) (*)	Y	S/P	3	2G	Open	No	-	-	NF	R	No	No	No	15.19.6
Sodium carbonate solution (*)	z	S/P	3	2G	Open	No			NF	R	No	No	No	15.19.6
Sodium chlorate solution (50% or less) (*)	z	S/P	3	2G	Open	No			NF	R	No	No	No	15.9, 15.12, 15.19, 16.2.9
Sodium dichromate solution (70% or less)	Y	S/P	1	1G	Cont	No			NF	С	Т	No	Yes	15.12, 15.17, 15.18, 15.19
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	z	S/P	3	2G	Open	No			NF	0	No	No	No	15.19.6, 16.2.9
Sodium hydrogen sulphite solution (45% or less)	z	Ρ	3	2G	Open	No			NF	0	No	No	No	16.2.9
Sodium hydrosulphide/Ammonium sulphide solution (*)	Y	S/P	2	2G	Cont	No	T4	IIB	No	С	FT	AC	Yes	15.12, 15.15, 15.17, 15.19, 16.6.1, 16.6.2, 16.6.3
Sodium hydrosulphide solution (45% or less) (*)	Z	S/P	3	2G	Cont	Vent or pad (gas)			NF	R	Т	No	Yes	15.12, 15.15, 15.19.6, 16.2.9
Sodium hydroxide solution (*)	Y	S/P	3	2G	Open	No			NF	С	No	No	No	15.19, 16.2.6, 16.2.9
Sodium hypochlorite solution (15% or less)	Y	S/P	2	2G	Cont	No	-	-	NF	R	No	No	No	15.17, 15.19.6
Sodium methylate 21-30% in methyl alcohol	Y	S/P	2	2G	Cont	No	T1	IIA	No	С	FT	AC	Yes	15.12, 15.17, 15.19, 16.2.6 (only if >28%), 16.2.9
Sodium nitrite solution	Y	S/P	3	2G	Cont	No			NF	с	Т	No	No	15.12.3, 15.12.4, 15.19, 16.2.6, 16.2.9
Sodium petroleum sulphonate	Y	S/P	2	2G	Cont	No			Yes	R	Т	ABC	Yes	15.12.3, 15.12.4, 15.19.6, 16.2.6
Sodium poly(4+)acrylate solutions	Ζ	S/P	3	2G	Open	No	-	-	Yes	0	No	AC	No	16.2.9

CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21) - 51 -

a	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Sodium silicate solution	Y	S/P	3	2G	Cont	No			NF	С	Т	No	Yes	15.12, 15.17, 15.19, 16.2.9
Sodium sulphate solutions	Z	S	3	2G	Open	No			NF	0	No	No	No	16.2.9,
Sodium sulphide solution (15% or less)	Y	S/P	3	2G	Cont	No			NF	С	т	No	Yes	15.12, 15.17, 15.19, 16.2.9
Sodium sulphite solution (25% or less)	Y	S/P	3	2G	Open	No			NF	0	No	No	No	15.19.6, 16.2.9
Sodium thiocyanate solution (56% or less)	Y	S/P	3	2G	Open	No			NF	0	No	No	No	15.19.6, 16.2.9
Soyabean oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Soybean Oil Fatty Acid Methyl Ester	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Styrene monomer	Y	S/P	3	2G	Cont	No	T1	IIA	No	с	FT	ABC	No	15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
Sulphohydrocarbon (C3-C88)	Y	Р	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Sulpholane	Y	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Sulphur (molten) (*)	z	s	3	1G	Open	Vent or pad (gas)	Т3		Yes	0	FT	No	No	15.10, 16.2.9
Sulphuric acid	Y	S/P	2	2G	Cont	No			NF	с	т	No	Yes	15.11, 15.12, 15.16.2, 15.17, 15.19, 16.2.9
Sulphuric acid, spent	Y	S/P	2	2G	Cont	No			NF	с	т	No	Yes	15.11, 15.12, 15.16.2, 15.17, 15.19
Sulphurized fat (C14-C20)	Z	S/P	3	2G	Open	No			Yes	0	No	ABC	No	
Sulphurized polyolefinamide alkene (C28-C250) amine	Z	Р	3	2G	Open	No	-	-	Yes	0	No	AC	No	
Sunflower seed oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Tall oil, crude	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6
Tall oil, distilled	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6

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а	C	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Tall oil fatty acid (resin acids less than 20%)	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6
Tall oil pitch	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6,16.2.6, 16.2.9
Tall oil soap, crude	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.19, 16.2.6
Tallow	Y	Ρ	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Tallow fatty acid	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	AC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Tetrachloroethane	Υ	S/P	2	2G	Cont	No			NF	R	Т	No	No	15.12.3, 15.12.4, 15.19
Tetraethylene glycol	Ζ	Ρ	3	2G	Open	No			Yes	0	No	AC	No	
Tetraethylene pentamine	Υ	S/P	2	2G	Cont	No			Yes	С	Т	AC	Yes	15.12, 15.17, 15.19
Tetrahydrofuran	Ζ	S	3	2G	Cont	No	Т3	IIB	No	R	F	AC	No	15.19.6
Tetrahydronaphthalene	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Tetramethylbenzene (all isomers)	x	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.9
Titanium dioxide slurry	Z	Р	3	2G	Open	No			NF	0	No	No	No	
Toluene	Υ	S/P	3	2G	Cont	No	T1	IIA	No	С	FT	AC	No	15.12, 15.17, 15.19.6
Toluenediamine	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.17, 15.18, 15.19, 16.2.6, 16.2.9
Toluene diisocyanate	Y	S/P	2	2G	Cont	Dry	-	-	Yes	с	т	ABC(b)D	Yes	15.12, 15.16.2, 15.17, 15.18, 15.19, 16.2.9
o-Toluidine	Υ	S/P	2	2G	Cont	No			Yes	С	Т	ABC	No	15.12, 15.17, 15.19
Tributyl phosphate	Y	S/P	3	2G	Cont	No			Yes	с	т	ABC	No	15.12.3, 15.12.4, 15.19.6
1,2,3-Trichlorobenzene (molten)	x	S/P	2	2G	Cont	No			Yes	R	Т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
1,2,4-Trichlorobenzene	x	S/P	1	2G	Cont	No			Yes	с	т	ABC	No	15.12, 15.17, 15.19, 16.2.9

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1,1,1-Trichloroethane	Y	Р	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
1,1,2-Trichloroethane	Y	S/P	3	2G	Open	No			NF	0	No	No	No	15.19.6
Trichloroethylene	Y	S/P	2	2G	Cont	No	-	-	NF	С	Т	No	No	15.12, 15.17, 15.19.6
1,2,3-Trichloropropane	Y	S/P	3	2G	Cont	No			Yes	С	Т	ABC	No	15.12, 15.17, 15.19
1,1,2-Trichloro-1,2,2-Trifluoroethane	Y	Ρ	2	2G	Open	No			NF	0	No	No	No	15.19.6
Tricresyl phosphate (containing 1% or more ortho-isomer)	Y	S/P	2	2G	Cont	No	-	-	Yes	С	т	ABC	No	15.12, 15.17, 15.19, 16.2.6
Tricresyl phosphate (containing less than 1% ortho-isomer)	Y	S/P	2	2G	Cont	No			Yes	С	т	ABC	No	15.12, 15.17, 15.19.6, 16.2.6
Tridecane	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Tridecanoic acid	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Tridecyl acetate	Y	S/P	3	2G	Cont	No	-	-	Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Triethanolamine	z	S/P	3	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Triethylamine	Y	S/P	3	2G	Cont	No	T2	IIA	No	С	FT	ABC	No	15.12.3, 15.12.4, 15.19
Triethylbenzene	х	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6
Triethylenetetramine	Y	S/P	2	2G	Cont	No	-	-	Yes	с	т	AC	Yes	15.12, 15.17, 15.19, 16.2.9
Triethyl phosphate	Z	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6
Triethyl phosphite	z	S/P	3	2G	Cont	No	тз	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Triisopropanolamine	Z	S/P	3	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.9
Triisopropylated phenyl phosphates	х	Р	2	2G	Open	No			Yes	0	No	AC	No	15.19.6, 16.2.6
Trimethylacetic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.11, 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

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Trimethylamine solution (30% or less)	z	S/P	2	2G	Cont	No	Т3	IIB	No	R	FT	AC	No	15.12.3, 15.12.4, 15.14, 15.19.6
Trimethylbenzene (all isomers)	х	S/P	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6
Trimethylol propane propoxylated	z	S/P	3	2G	Open	No	-	-	Yes	0	No	ABC	No	
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	Y	S/P	3	2G	Open	No			Yes	0	No	ABC	No	15.19.6
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
1,3,5-Trioxane	Y	S/P	3	2G	Cont	No	T2	IIB	No	с	FT	AC	No	15.12, 15.17, 15.19.6, 16.2.9
Tripropylene glycol	z	Р	3	2G	Open	No			Yes	0	No	AC	No	
Trixylyl phosphate	x	S/P	1	2G	Cont	No			Yes	с	т	ABC	No	15.12, 15.17, 15.19.6, 16.2.6
Tung oil	Y	S/P	2(k)	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Turpentine	Х	S/P	2	2G	Cont	No	Т3	IIA	No	R	FT	AC	No	15.19.6
Undecanoic acid	Y	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
1-Undecene	Х	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6
Undecyl alcohol	x	S/P	2	2G	Cont	No			Yes	R	т	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Urea/Ammonium nitrate solution	Y	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	15.19.6
Urea/Ammonium phosphate solution	Y	S/P	2	2G	Cont	No			Yes	R	т	AC	No	15.12.3, 15.12.4, 15.19.6
Urea solution	Ζ	S/P	3	2G	Open	No			Yes	0	No	AC	No	16.2.9,
Used cooking oil (m)	Х	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9

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а	С	d	е	f	g	h	i'	i"	i'''	j	k	I	n	0
Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (m) (n)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Valeraldehyde (all isomers)	Y	S/P	3	2G	Cont	Inert	тз	IIB	No	R	F	ABC	No	15.4.6, 15.13, 15.19.6, 16.6.1, 16.6.2
Vegetable acid oils (m)	Y	S/P	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Vegetable fatty acid distillates (m)	Y	Ρ	2	2G	Open	No	-	-	Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Vegetable oil mixtures, containing less than 15% free fatty acid (m)	Y	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.7, 16.2.9
Vinyl acetate	Y	S/P	3	2G	Cont	No	T2	IIA	No	с	FT	ABC	No	15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
Vinyl ethyl ether	z	S/P	2	2G	Cont	Inert	Т3	IIB	No	R	F	ABC	No	15.4, 15.13, 15.14, 15.19.6, 16.6.1, 16.6.2
Vinylidene chloride	Y	S/P	2	2G	Cont	Inert	T2	IIA	No	с	FT	ABC	No	15.12, 15.13, 15.14, 15.17, 15.19, 16.6.1, 16.6.2
Vinyl neodecanoate	Y	S/P	2	2G	Cont	No			Yes	с	т	ABC	Yes	15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
Vinyltoluene	Y	S/P	2	2G	Cont	No	T1	IIA	No	с	FT	ABC	No	15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
White spirit, low (15-20%) aromatic	Y	S/P	2	2G	Cont	No	Т3	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Wood lignin with sodium acetate/oxalate	z	S/P	3	2G	Open	No	-	-	NF	0	No	No	No	
Xylenes	Υ	Ρ	2	2G	Cont	No	T1	IIA	No	R	F	ABC	No	15.19.6, 16.2.9 (h)
Xylenes/ethylbenzene (10% or more) mixture	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	FT	ABC	No	15.12.3, 15.12.4, 15.19.6
Xylenol	Y	S/P	2	2G	Cont	No	-	IIA	Yes	с	Т	ABC	Yes	15.12, 15.17, 15.19, 16.2.9

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Zinc alkaryl dithiophosphate (C7-C16)	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Zinc alkenyl carboxamide	Υ	S/P	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6
Zinc alkyl dithiophosphate (C3-C14)	Y	Ρ	2	2G	Open	No			Yes	0	No	ABC	No	15.19.6, 16.2.6

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Footnotes to products in chapter 17

Some entries in chapter 17 contain footnotes, as either letters or symbols in parentheses following the name of the product, in *column a* of the tables. These provide additional information about the carriage requirements for the product. The definitions of these footnotes are included below.

- a If the product to be carried contains flammable solvents such that the flashpoint does not exceed 60°C, then special electrical systems and a flammable-vapour detector shall be provided.
- b Although water is suitable for extinguishing open-air fires involving chemicals to which this footnote applies, water shall not be allowed to contaminate closed tanks containing these chemicals because of the risk of hazardous gas generation.
- c Phosphorus, yellow or white, is carried above its autoignition temperature and therefore flashpoint is not appropriate. Electrical equipment requirements may be similar to those for substances with a flashpoint above 60°C.
- d Requirements are based on those isomers having a flashpoint of 60°C or less; some isomers have a flashpoint greater than 60°C and therefore the requirements based on flammability would not apply to such isomers.
- e Applies to n-decyl alcohol only.
- f Dry chemical shall not be used as fire-extinguishing media.
- g Confined spaces shall be tested for both formic acid vapours and carbon monoxide gas, a decomposition product.
- h Applies to p-xylene only.
- i For mixtures containing no other components with safety hazards and where the pollution category is Y or less.
- j Only certain alcohol-resistant foams are effective.
- k Requirements for Ship Type identified in *column e* might be subject to regulation 4.1.3 of Annex II of MARPOL.
- Applicable when the melting point is equal to or greater than 0°C.
- m From vegetable oils, animal fats and fish oils specified in the IBC Code.
- n Confirmation that the product is composed of Triglycerides, C16-C18 and C18 unsaturated shall be required in order for the entry to be used. Otherwise, the more generic entry "Used cooking oil (m)" must be used.
- Indicates that the entries are to be used solely for backloading of contaminated bulk liquids from offshore installations used in the search and exploitation of seabed mineral resources.
- * Indicates that with reference to chapter 21 of the IBC Code (paragraph 21.1.3), deviations from the normal assignment criteria used for some carriage requirements have been implemented.

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Chapter 18

List of products to which the Code does not apply

18.1 The following are products which have been reviewed for their safety and pollution hazards and determined not to present hazards to such an extent as to warrant application of the Code.

18.2 Although the products listed in this chapter fall outside the scope of the Code, the attention of Administrations is drawn to the fact that some safety precautions may be needed for their safe transportation. Accordingly, Administrations shall prescribe appropriate safety requirements.

18.3 Some liquid substances are identified as falling into Pollution Category Z and, therefore, subject to certain requirements of MARPOL Annex II.

18.4 Liquid mixtures which are assessed or provisionally assessed under regulation 6.3 of MARPOL Annex II as falling into Pollution Category Z or OS, and which do not present safety hazards, may be carried under the appropriate entry in this chapter for "Noxious or Non-Noxious Liquid Substances, not otherwise specified (n.o.s.)".

EXPLANATORY NOTES

Product name	The product name shall be used in the shipping document for any cargo offered for bulk shipments. Any additional name may be included in brackets after the product name. In some cases, the product names are not identical with the names given in previous issues of the Code.
Pollution Category	The letter Z means the Pollution Category assigned to each

Dilution Category The letter Z means the Pollution Category assigned to each product under Annex II of MARPOL. OS means the product was evaluated and found to fall outside Categories X, Y, or Z.

Product Name	Pollution Category
Acetone	Z
Alcoholic beverages, n.o.s.	Z
Apple juice	OS
n-Butyl alcohol	Z
sec-Butyl alcohol	Z
Calcium carbonate slurry	OS
Clay slurry	OS
Coal slurry	OS
Ethyl alcohol	Z
Glucose solution	OS
Glycerol ethoxylated	OS
Hydrogenated starch hydrolysate	OS
Isopropyl alcohol	Z
Kaolin slurry	OS
Lecithin	OS
Maltitol solution	OS
Microsilica slurry	OS

RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS

CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

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Product Name Molasses	Pollution Category
Noxious liquid, (11) n.o.s. (trade name, contains) Cat. Z	Z
Non noxious liquid, (12) n.o.s. (trade name, contains) Cat. OS	OS
Orange juice (concentrated)	OS
Orange juice (not concentrated)	OS
Potassium chloride solution (less than 26%)	OS
Propylene glycol	OS
Sodium acetate solutions	Z
Sodium bicarbonate solution (less than 10%)	OS
Sorbitol solution	OS
Sulphonated polyacrylate solution	Z
Tetraethyl silicate monomer/oligomer (20% in ethanol)	Z
Triethylene glycol	OS
Vegetable protein solution (hydrolysed)	OS
Water	OS

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Chapter 19

Index of Products Carried in Bulk

19.1 The first column of the Index of Products Carried in Bulk (hereafter referred to as "the Index") provides the so-called Index Name. Where the Index Name is in capitals and in bold, the Index Name is identical to the Product Name in either chapter 17 or chapter 18. The second column listing the relevant Product Name is therefore empty. Where the Index Name is non-bold lower case it reflects a synonym for which the Product Name in either chapter 17 or chapter 18 is given in the second column. The relevant chapter of the IBC Code is reflected in the third column.

19.2 Following a review of chapter 19, a column listing UN numbers which was previously included had been removed from the Index. Since UN numbers are only available for a limited number of Index Names and there are inconsistencies between some of the names used in chapter 19 and those linked to UN numbers, it was decided to remove UN number references in order to avoid any confusion.

19.3 The Index has been developed for information purposes only. None of the Index Names indicated in non-bold lower case in the first column shall be used as the Product Name on the shipping document.

19.4 Prefixes forming an integral part of the name are shown in ordinary (roman) type and are taken into account in determining the alphabetical order of entries. These include such prefixes as:

Mono Di Tri Tetra Penta Iso Bis Neo Ortho Cyclo

19.5 Prefixes that are disregarded for purposes of alphabetical order are the following:

n- sec- tert- o- m- p- N- O- S-	(normal-) (secondary-) (tertiary-) (ortho-) (meta-) (para-)
sym- uns- dl- D- L-	(symmetrical) (unsymmetrical)
cis- trans- (E)- (Z)- alpha- beta- gamma- epsilon- omega-	(α-) (β-) (γ-) (ε-) (ω-)

19.6 The Index utilizes a note after the Index Name for some entries (shown as (a) or (b)) which indicates that the following qualifications apply:

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- (a) this Index Name represents a subset of the corresponding Product Name.
- (b) The Product Name corresponding to this Index Name contains a carbon chain length qualification. Since the Index Name should always represent a subset or be an exact synonym of the corresponding Product Name, the carbon chain length characteristics should be checked for any product identified by this Index Name.

Index Name	Product Name	Chapter
Abietic anhydride	ROSIN	17
acedimethylamide	N,N-DIMETHYLACETAMIDE	17
Acetaldehyde cyanohydrin solution (80% or less)	LACTONITRILE SOLUTION (80% OR LESS)	17
Acetaldehyde trimer	PARALDEHYDE	17
ACETIC ACID		17
Acetic acid anhydride	ACETIC ANHYDRIDE	17
Acetic acid, ethenyl ester	VINYL ACETATE	17
Acetic acid, methyl ester	METHYL ACETATE	17
Acetic acid, vinyl ester	VINYL ACETATE	17
ACETIC ANHYDRIDE		17
Acetic ester	ETHYL ACETATE	17
Acetic ether	ETHYL ACETATE	17
Acetic oxide	ACETIC ANHYDRIDE	17
Acetoacetic acid, methyl ester	METHYL ACETOACETATE	17
Acetoacetic ester	ETHYL ACETOACETATE	17
ACETOCHLOR		17
ACETONE		18
ACETONE CYANOHYDRIN		17
ACETONITRILE		17
ACETONITRILE (LOW PURITY GRADE)		17
Acetyl anhydride	ACETIC ANHYDRIDE	17
Acetylene tetrachloride	TETRACHLOROETHANE	17
Acetyl ether	ACETIC ANHYDRIDE	17
Acetyl oxide	ACETIC ANHYDRIDE	17
ACID OIL MIXTURE FROM SOYABEAN, CORN (MAIZE) AND SUNFLOWER OIL REFINING		17
Acroleic acid	ACRYLIC ACID	17
ACRYLAMIDE SOLUTION (50% OR LESS)		17
ACRYLIC ACID		17
ACRYLIC ACID/ETHENESULPHONIC ACID COPOLYMER WITH PHOSPHONATE GROUPS, SODIUM SALT SOLUTION		17
Acrylic acid, 2-hydroxyethyl ester	2-HYDROXYETHYL ACRYLATE	17
Acrylic amide solution, 50% or less	ACRYLAMIDE SOLUTION (50% OR LESS)	17
Acrylic resin monomer	METHYL METHACRYLATE	17
ACRYLONITRILE		17
ACRYLONITRILE-STYRENE COPOLYMER DISPERSION IN POLYETHER POLYOL		17
Adipic acid, bis(2-ethylhexyl) ester	DI-(2-ETHYLHEXYL) ADIPATE	17
		17

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Index Name	Product Name	Chapte
ALACHLOR TECHNICAL (90% OR MORE)		17
Alcohol	ETHYL ALCOHOL	18
Alcohol, C10	DECYL ALCOHOL (ALL ISOMERS)	17
Alcohol, C11	UNDECYL ALCOHOL	17
Alcohol, C12		17
Alcohol, C7 (a)	HEPTANOL (ALL ISOMERS) (D)	17
Alcohol, C8		17
Alcohol, C9 ALCOHOLIC BEVERAGES, N.O.S.	NONYL ALCOHOL (ALL ISOMERS)	17 18
		17
ALCOHOL (C10-C18) POLY (7) ETHOXYLATE		17
ALCOHOL (C6-C17) (SECONDARY) POLY(3-6)ETHOXYLATES		17
ALCOHOL (C6-C17) (SECONDARY) POLY(7-12)ETHOXYLATES		17
ALCOHOL (C12-C16) POLY(1-6) ETHOXYLATES		17
ALCOHOL (C12-C16) POLY(20+)ETHOXYLATES		17
ALCOHOL (C12-C16) POLY(7-19)ETHOXYLATES		17
ALCOHOLS (C13+)		17
Alcohols, C13 - C15	ALCOHOLS (C13+)	17
ALCOHOLS (C12+), PRIMARY, LINEAR		17
ALCOHOLS (C8-C11), PRIMARY, LINEAR AND ESSENTIALLY LINEAR		17
ALCOHOLS (C12-C13), PRIMARY, LINEAR AND ESSENTIALLY LINEAR		17
ALCOHOLS (C14-C18), PRIMARY, LINEAR AND ESSENTIALLY LINEAR		17
Aldehyde collidine	2-METHYL-5-ETHYL PYRIDINE	17
Aldehydine	2-METHYL-5-ETHYL PYRIDINE	17
ALKANES (C6-C9)		17
SO- AND CYCLO-ALKANES (C10-C11)		17
SO- AND CYCLO-ALKANES (C12+)		17
N-ALKANES (C9-C11)		17
N-ALKANES (C10-C20)		17
Alkane(C10-C18)sulfonic acid, phenyl ester (a)	ALKYL SULPHONIC ACID ESTER OF PHENOL	17
ALKARYL POLYETHERS (C9-C20)		17
ALKENOIC ACID, POLYHYDROXY ESTER BORATED		17
ALKENYL (C11+) AMIDE		17
ALKENYL (C16-C20) SUCCINIC ANHYDRIDE		17
ALKYL ACRYLATE/VINYLPYRIDINE COPOLYMER IN TOLUENE		17
ALKYL/CYCLO (C4-C5) ALCOHOLS		17
ALKYLARYL PHOSPHATE MIXTURES (MORE THAN 40% DIPHENYL TOLYL PHOSPHATE, LESS THAN 0.02% ORTHO-ISOMERS)		17
ALKYLATED (C4-C9) HINDERED PHENOLS		17
ALKYLBENZENE, ALKYLINDANE, ALKYLINDENE MIXTURE (EACH C12-C17)		17
ALKYLBENZENE DISTILLATION BOTTOMS		17

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Index Name	Product Name	Chapt
ALKYLBENZENE MIXTURES (CONTAINING AT LEAST 50% OF TOLUENE)		17
ALKYL (C3-C4) BENZENES		17
ALKYL (C5-C8) BENZENES		17
ALKYL(C9+)BENZENES		17
ALKYLBENZENES MIXTURES (CONTAINING NAPHTHALENE)		17
ALKYL (C11-C17) BENZENE SULPHONIC ACID		17
ALKYLBENZENE SULPHONIC ACID, SODIUM SALT SOLUTION		17
ALKYL (C12+) DIMETHYLAMINE		17
ALKYL DITHIOCARBAMATE (C19-C35)		17
ALKYL DITHIOTHIADIAZOLE (C6-C24)		17
ALKYL ESTER COPOLYMER (C4-C20)		17
ALKYL (C8-C10)/(C12-C14):(40% OR LESS/60% OR MORE) POLYGLUCOSIDE SOLUTION (55% OR LESS)		17
ALKYL (C8-C10)/(C12-C14):(60% OR MORE/40% OR LESS) POLYGLUCOSIDE SOLUTION(55% OR LESS)		17
ALKYL (C7-C9) NITRATES		17
2,2'- [3-(Alkyl(C16-C18)oxy)propylimino]diethanol (a)	ETHOXYLATED LONG CHAIN (C16+) ALKYLOXYALKYLAMINE	17
Alkylphenol, long-chain (C14-C18)	LONG-CHAIN ALKYLPHENOL (C14-C18)	17
Alkylphenol, long-chain (C18-C30)	LONG-CHAIN ALKYLPHENOL (C18-C30)	17
ALKYL(C7-C11)PHENOL POLY(4-12) ETHOXYLATE		17
ALKYL (C8-C40) PHENOL SULPHIDE		17
ALKYL (C8-C9) PHENYLAMINE IN AROMATIC SOLVENTS		17
ALKYL (C9-C15) PHENYL PROPOXYLATE		17
ALKYL (C8-C10) POLYGLUCOSIDE SOLUTION (65% OR LESS)		17
ALKYL (C8-C10)/(C12-C14):(50%/50%) POLYGLUCOSIDE SOLUTION (55% OR LESS)		17
ALKYL (C12-C14) POLYGLUCOSIDE SOLUTION (55% OR LESS)		17
ALKYL(C12-C16) PROPOXYAMINE ETHOXYLATE		17
ALKYL (C10-C15, C12 RICH) PHENOL POLY(4-12)ETHOXYLATE		17
ALKYL (C10-C20, SATURATED AND UNSATURATED) PHOSPHITE		17
ALKYL SULPHONIC ACID ESTER OF PHENOL		17
ALKYL (C18+) TOLUENES		17
Alkyltoluenesulfonic acid, calcium salts, high overbase (up to 70% in mineral oil)	ALKYL (C18-C28) TOLUENESULPHONIC ACID, CALCIUM SALTS, HIGH OVERBASE	17
Alkyl(C18-C28)toluenesulfonic acid,calcium salts, low overbase (up to 60% in mineral oil)	ALKYL (C18-C28) TOLUENESULPHONIC ACID, CALCIUM SALTS, LOW OVERBASE	17
ALKYL(C18-C28)TOLUENESULPHONIC ACID		17
ALKYL(C18-C28)TOLUENESULPHONIC ACID, CALCIUM SALTS, BORATED		17
ALKYL (C18-C28) TOLUENESULPHONIC ACID, CALCIUM SALTS, HIGH OVERBASE		17
ALKYL (C18-C28) TOLUENESULPHONIC ACID, CALCIUM SALTS, LOW OVERBASE		17
3-Alky(C16-C18)oxy-N,N'-bis(2-hydroxyethyl)propan-1-amine (a)	ETHOXYLATED LONG CHAIN (C16+) ALKYLOXYALKYLAMINE	17

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Index Name	Product Name	Chapte
ALLYL ALCOHOL		17
ALLYL CHLORIDE		17
ALUMINIUM CHLORIDE/HYDROGEN CHLORIDE SOLUTION		17
ALUMINIUM HYDROXIDE, SODIUM HYDROXIDE, SODIUM CARBONATE SOLUTION (40% OR LESS)		17
Aluminium silicate hydroxide	KAOLIN SLURRY	18
ALUMINIUM SULPHATE SOLUTION		17
Aminoacetic acid, sodium salt solution	GLYCINE, SODIUM SALT SOLUTION	17
1-Amino-3-aminomethyl-3,5,5-trimethylcyclohexane	ISOPHORONEDIAMINE	17
Aminobenzene	ANILINE	17
1-Aminobutane (a)	BUTYLAMINE (ALL ISOMERS)	17
2-Aminobutane	BUTYLAMINE (ALL ISOMERS)	17
Aminocyclohexane	CYCLOHEXYLAMINE	17
Aminoethane	ETHYLAMINE	17
Aminoethane solutions, 72% or less	ETHYLAMINE SOLUTIONS (72% OR LESS)	17
2-Aminoethanol	ETHANOLAMINE	17
2-(2-AMINOETHOXY) ETHANOL		17
2-(2-Aminoethylamino)ethanol	AMINOETHYL ETHANOLAMINE	17
AMINOETHYLDIETHANOLAMINE/AMINOETHYLETHANOLA MINE SOLUTION		17
AMINOETHYL ETHANOLAMINE		17
N-(2-aminoethyl)ethylenediamine	DIETHYLENETRIAMINE	17
1-(2-Aminoethyl)piperazine	N-AMINOETHYLPIPERAZINE	17
N-AMINOETHYLPIPERAZINE		17
2-Aminoisobutane (a)	BUTYLAMINE (ALL ISOMERS)	17
Aminomethane solutions, 42% or less	METHYLAMINE SOLUTIONS (42% OR LESS)	17
1-Amino-2-methylbenzene	O-TOLUIDINE	17
2-Amino-1-methylbenzene	O-TOLUIDINE	17
2-AMINO-2-METHYL-1-PROPANOL		17
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	ISOPHORONEDIAMINE	17
Aminophen	ANILINE	17
1-Aminopropane	N-PROPYLAMINE	17
2-Aminopropane	ISOPROPYLAMINE	17
2-Aminopropane (70% or less) solution	ISOPROPYLAMINE (70% OR LESS) SOLUTION	17
1-Amino-2-propanol	ISOPROPANOLAMINE	17
1-Aminopropan-2-ol	ISOPROPANOLAMINE	17
3-Aminopropan-1-ol	N-PROPANOLAMINE	17
2-Aminotoluene	O-TOLUIDINE	17
o-Aminotoluene	O-TOLUIDINE	17
5-Amino-1,3,3-trimethylcyclohexylmethylamine	ISOPHORONEDIAMINE	17
AMMONIA AQUEOUS (28% OR LESS)		17
Ammonia water, 28% or less	AMMONIA AQUEOUS (28% OR LESS)	17
AMMONIUM CHLORIDE SOLUTION (LESS THAN 25%) (*)		17
AMMONIUM HYDROGEN PHOSPHATE SOLUTION		17
Ammonium hydroxide, 28% or less	AMMONIA AQUEOUS (28% OR LESS)	17
AMMONIUM LIGNOSULPHONATE SOLUTIONS		17

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Index Name	Product Name	Chapte
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AMMONIUM POLYPHOSPHATE SOLUTION		17
AMMONIUM SULPHATE SOLUTION		17
AMMONIUM SULPHIDE SOLUTION (45% OR LESS) (*)		17
AMMONIUM THIOSULPHATE SOLUTION (60% OR LESS)		17
AMYL ACETATE (ALL ISOMERS)		17
Amyl acetate, commercial (a)	AMYL ACETATE (ALL ISOMERS)	17
n-Amyl acetate (a)	AMYL ACETATE (ALL ISOMERS)	17
sec-Amyl acetate (a)	AMYL ACETATE (ALL ISOMERS)	17
Amylacetic ester (a)	AMYL ACETATE (ALL ISOMERS)	17
Amyl alcohol	N-AMYL ALCOHOL	17
N-AMYL ALCOHOL		17
AMYL ALCOHOL, PRIMARY		17
SEC-AMYL ALCOHOL		17
TERT-AMYL ALCOHOL		17
Amyl aldehyde	VALERALDEHYDE (ALL ISOMERS)	17
Amylcarbinol	HEXANOL	17
Amylene hydrate	TERT-AMYL ALCOHOL	17
TERT-AMYL ETHYL ETHER		17
Amyl ethyl ketone	ETHYL AMYL KETONE	17
TERT-AMYL METHYL ETHER		17
n-Amyl methyl ketone	METHYL AMYL KETONE	17
n-Amyl propionate		17
Anaesthetic ether	DIETHYL ETHER (*)	17
ANILINE		17
Aniline oil	ANILINE	17
Anilinobenzene	DIPHENYLAMINE (MOLTEN)	17
Anthracene oil (coal tar fraction) (a)	COAL TAR	17
Ant oil, artificial	FURFURAL	17
APPLE JUICE		18
Aqua fortis	NITRIC ACID (70% AND OVER)	17
Argilla	KAOLIN SLURRY	18
ARYL POLYOLEFINS (C11-C50)		17
AVIATION ALKYLATES (C8 PARAFFINS AND ISO-PARAFFINS BPT 95 - 120°C)		17
Azacycloheptane	HEXAMETHYLENEIMINE	17
3-Azapentane-1,5-diamine	DIETHYLENETRIAMINE	17
Azepane	HEXAMETHYLENEIMINE	17
Azotic acid	NITRIC ACID (70% AND OVER)	17
BARIUM LONG CHAIN (C11-C50) ALKARYL SULPHONATE		17
Basic calcium alkyl salicylate in approximately 30% mineral oil (b)	CALCIUM LONG-CHAIN ALKYL SALICYLATE (C13+)	17
Battery acid	SULPHURIC ACID	17
Behenyl alcohol (a)	ALCOHOLS (C13+)	17
Benzenamine	ANILINE	17
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	BIS(2-ETHYLHEXYL) TEREPHTHALATE	17

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Index Name	Product Name	Chapte
1,4-Benzenedicarboxylic acid, butyl ester	DIBUTYL TEREPHTHALATE	17
1,2-Benzenedicarboxylic acid, diethyl ester	DIETHYL PHTHALATE	17
1,2-Benzenedicarboxylic acid, diundecyl ester	DIUNDECYL PHTHALATE	17
BENZENE AND MIXTURES HAVING 10% BENZENE OR MORE (I)		17
BENZENE SULPHONYL CHLORIDE		17
BENZENESULPHONYL CHLORIDE	BENZENE SULPHONYL CHLORIDE	17
BENZENETRICARBOXYLIC ACID, TRIOCTYL ESTER		17
Benzenol	PHENOL	17
Benzol	BENZENE AND MIXTURES HAVING 10% BENZENE OR MORE (I)	17
Benzole	BENZENE AND MIXTURES HAVING 10% BENZENE OR MORE (I)	17
Benzophenol	PHENOL	17
2-Benzothiazolethiol, sodium salt solution	MERCAPTOBENZOTHIAZOL, SODIUM SALT SOLUTION	17
Benzothiazole-2-thiol, sodium salt solution	MERCAPTOBENZOTHIAZOL, SODIUM SALT SOLUTION	17
(2-Benzothiazolylthio) sodium solution	MERCAPTOBENZOTHIAZOL, SODIUM SALT SOLUTION	17
BENZYL ACETATE		17
BENZYL ALCOHOL		17
Benzyl butyl phthalate	BUTYL BENZYL PHTHALATE	17
BENZYL CHLORIDE		17
Betaprone	BETA-PROPIOLACTONE	17
Betula oil	METHYL SALICYLATE	17
Biformyl	GLYOXAL SOLUTION (40% OR LESS)	17
BIO-FUEL BLENDS OF DIESEL/GAS OIL AND FAME (>25% BUT <99% BY VOLUME)		17
BIO-FUEL BLENDS OF DIESEL/GAS OIL AND VEGETABLE OIL (>25% BUT <99% BY VOLUME)		17
BIO-FUEL BLENDS OF GASOLINE AND ETHYL ALCOHOL (>25% BUT <99% BY VOLUME)		17
Biphenyl	DIPHENYL	17
Bis(methylcyclopentadiene)	METHYLCYCLOPENTADIENE DIMER	17
2,5-Bis(alkyl(C7+)thio)-1,3,4-thiadiazole	ALKYL DITHIOTHIADIAZOLE (C6-C24)	17
Bis(2-aminoethyl)amine	DIETHYLENETRIAMINE	17
N,N'-Bis(2-aminoethyl)ethane-1,2-diamine	TRIETHYLENETETRAMINE	17
N,N'-Bis(2-aminoethyl)ethylenediamine	TRIETHYLENETETRAMINE	17
N,N-Bis(2-(bis(carboxymethyl)amino)ethyl)glycine, pentasodium salt solution	DIETHYLENETRIAMINEPENTAACETIC ACID, PENTASODIUM SALT SOLUTION	17
Bis(2-butoxyethyl) ether	DIETHYLENE GLYCOL DIBUTYL ETHER	17
N,N- Bis(carboxymethyl)glycine trisodium salt solution	NITRILOTRIACETIC ACID, TRISODIUM SALT SOLUTION	17
Bis(chloroethyl) ether	DICHLOROETHYL ETHER	17
Bis(2-chloroethyl) ether	DICHLOROETHYL ETHER	17
Bis (2-chloroisopropyl) ether	2,2'-DICHLOROISOPROPYL ETHER	17
Bis(2-chloro-1-methylethyl) ether	2,2'-DICHLOROISOPROPYL ETHER	17
Ric[2 (2.2 anayupropoyu)phonulimethana	DIGLYCIDYL ETHER OF BISPHENOL F	17
Bis[2-(2,3-epoxypropoxy)phenyl]methane		
Bis[2-(2,3-epoxypropoxy)phenyl]propane	DIGLYCIDYL ETHER OF BISPHENOL A	17
	DIGLYCIDYL ETHER OF BISPHENOL A DIETHYLENE GLYCOL DIETHYL ETHER	17 17

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dex Name	Product Name	Chapte
s (2-ethylhexyl)-1-4-benzenedicarboxylate	BIS(2-ETHYLHEXYL) TEREPHTHALATE	17
s(2-ethylhexyl) hydrogen phosphate	DI-(2-ETHYLHEXYL) PHOSPHORIC ACID	17
s(2-ethylhexyl) phthalate	DIOCTYL PHTHALATE	17
S(2-ETHYLHEXYL) TEREPHTHALATE		17
s(2-hydroxyethyl)amine	DIETHANOLAMINE	17
s(2-hydroxyethyl)ammonium 2,4-dichlorophenoxyacet	ate 2,4-DICHLOROPHENOXYACETIC ACID, DIETHANOLAMINE SALT SOLUTION	17
s(2-hydroxyethyl) ether	DIETHYLENE GLYCOL	17
s(2-hydroxypropyl)amine	DIISOPROPANOLAMINE	17
s(6-methylheptyl) phthalate	DIOCTYL PHTHALATE	17
ackstrap molasses (a)	MOLASSES	18
end of propoxylated polyether polyols with >10% addi	tives GLUCITOL/GLYCEROL BLEND PROPOXYLATED (CONTAINING 10% OR MORE AMINES)	17
blus alba	KAOLIN SLURRY	18
RAKE FLUID BASE MIX: POLY(2-8)ALKYLENE (C2 LYCOLS/POLYALKYLENE (C2-C10) GLYCOLS ONOALKYL (C1-C4) ETHERS AND THEIR BORATE STERS		17
an oil	FURFURAL	17
ROMOCHLOROMETHANE		17
utaldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
utanal (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
Butanal (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
3-Butanediol (a)	BUTYLENE GLYCOL	17
utane-1,3-diol (a)	BUTYLENE GLYCOL	17
4-Butanediol (a)	BUTYLENE GLYCOL	17
utane -1,4-diol (a)	BUTYLENE GLYCOL	17
3-Butanediol (a)	BUTYLENE GLYCOL	17
utane-2,3-diol (a)	BUTYLENE GLYCOL	17
utane, 2-ethoxy-2-methyl-ether	TERT-AMYL ETHYL ETHER	17
utanoic acid	BUTYRIC ACID	17
utanol	N-BUTYL ALCOHOL	18
Butanol	N-BUTYL ALCOHOL	18
utanol-1	N-BUTYL ALCOHOL	18
utan-1-ol	N-BUTYL ALCOHOL	18
Butanol	SEC-BUTYL ALCOHOL	18
utan-2-ol	SEC-BUTYL ALCOHOL	18
utanol acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
Butanol acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
4-Butanolide	GAMMA-BUTYROLACTONE	17
utan-4-olide	GAMMA-BUTYROLACTONE	17
Butanol	N-BUTYL ALCOHOL	18
ec-Butanol	SEC-BUTYL ALCOHOL	18
rt-Butanol	TERT-BUTYL ALCOHOL	17
Butanone	METHYL ETHYL KETONE	17
utan-2-one	METHYL ETHYL KETONE	17
Butenal	CROTONALDEHYDE	17
utene dimer	OCTENE (ALL ISOMERS)	17
utene dimer UTENE OLIGOMER	OCTENE (ALL ISOMERS)	

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Index Name	Product Name	Chapte
1-Butoxybutane	N-BUTYL ETHER	17
2-Butoxyethanol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-tert-butoxyethanol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-BUTOXYETHANOL (58%)/HYPERBRANCHED POLYESTERAMIDE (42%) (MIXTURE)		17
2-(2-Butoxyethoxy)ethanol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
2-(2-Butoxyethoxy)ethyl acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
2-Butoxyethyl acetate	ETHYLENE GLYCOL BUTYL ETHER ACETATE	17
1-Butoxypropan-2-ol (a)	PROPYLENE GLYCOL MONOALKYL ETHER	17
Butyl acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
BUTYL ACETATE (ALL ISOMERS)		17
n-Butyl acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
sec-Butyl acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
tert-Butyl acetate (a)	BUTYL ACETATE (ALL ISOMERS)	17
BUTYL ACRYLATE (ALL ISOMERS)		17
n-Butyl acrylate (a)	BUTYL ACRYLATE (ALL ISOMERS)	17
Butyl alcohol	N-BUTYL ALCOHOL	18
N-BUTYL ALCOHOL		18
SEC-BUTYL ALCOHOL		18
TERT-BUTYL ALCOHOL		17
n-Butyl aldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
BUTYLAMINE (ALL ISOMERS)		17
n-Butylamine (a)	BUTYLAMINE (ALL ISOMERS)	17
sec-Butylamine (a)	BUTYLAMINE (ALL ISOMERS)	17
tert-Butylamine (a)	BUTYLAMINE (ALL ISOMERS)	17
BUTYLBENZENE (ALL ISOMERS)		17
tert-Butylbenzene (a)	BUTYLBENZENE (ALL ISOMERS)	17
BUTYL BENZYL PHTHALATE	Bott EBERLENE (ALL ROOMERO)	17
Butyl butanoate (a) BUTYL BUTYRATE (ALL ISOMERS)	BUTYL BUTYRATE (ALL ISOMERS)	17 17
n-Butyl butyrate (a)	BUTYL BUTYRATE (ALL ISOMERS)	17
n-Butylcarbinol		17
Butyl carbitol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Butyl carbitol acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
Butyl cellosolve acetate	ETHYLENE GLYCOL BUTYL ETHER ACETATE	17
BUTYL/DECYL/CETYL/EICOSYL METHACRYLATE MIXTUR	E	17
Butyl/decyl/hexadecyl/icosyl methacrylate mixture (a)	BUTYL/DECYL/CETYL/EICOSYL METHACRYLATE MIXTURE	17
Butyl diglycol acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
BUTYLENE GLYCOL		17
alpha-Butylene glycol (a)	BUTYLENE GLYCOL	17
beta-Butylene glycol (a)	BUTYLENE GLYCOL	17
1,3-Butylene glycol, 3-methyl ether	3-METHOXY-1-BUTANOL	17

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Index Name	Product Name	Chapter
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Butylene oxide	TETRAHYDROFURAN	17
1,2-BUTYLENE OXIDE		17
Butyl ethanoate	BUTYL ACETATE (ALL ISOMERS)	17
Butyl ether	N-BUTYL ETHER	17
N-BUTYL ETHER		17
Butylethylacetic acid (a)	OCTANOIC ACID (ALL ISOMERS)	17
Butylethylene	HEXENE (ALL ISOMERS)	17
tert-Butyl ethyl ether	ETHYL TERT-BUTYL ETHER	17
iso-Butyl ketone	DIISOBUTYL KETONE	17
BUTYL METHACRYLATE		17
tert-Butyl methyl ether	METHYL TERT-BUTYL ETHER	17
Butyl methyl ketone	METHYL BUTYL KETONE	17
Butyl phthalate	DIBUTYL PHTHALATE	17
N-BUTYL PROPIONATE		17
BUTYRALDEHYDE (ALL ISOMERS)		17
n-Butyraldehyde	BUTYRALDEHYDE (ALL ISOMERS)	17
BUTYRIC ACID		17
n-Butyric acid	BUTYRIC ACID	17
Butyric alcohol	N-BUTYL ALCOHOL	18
Butyric aldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
GAMMA-BUTYROLACTONE		17
Cajeputene	DIPENTENE	17
CALCIUM ALKARYL SULPHONATE (C11-C50)		17
Calcium alkyl(longchain) salicylate (overbased) in mineral oil (LOA) (b)	CALCIUM LONG-CHAIN ALKYL SALICYLATE (C13+)	17
CALCIUM ALKYL (C10-C28) SALICYLATE		17
Calcium bis(O-alkylsalicylate) (b)	CALCIUM LONG-CHAIN ALKYL SALICYLATE (C13+)	17
Calcium bromide / zinc bromide solution	DRILLING BRINES (CONTAINING ZINC CHLORIDE)	17
CALCIUM CARBONATE SLURRY		18
CALCIUM HYDROXIDE SLURRY		17
CALCIUM HYPOCHLORITE SOLUTION (15% OR LESS)		17
CALCIUM HYPOCHLORITE SOLUTION (MORE THAN 15%)		17
CALCIUM LIGNOSULPHONATE SOLUTIONS		17
CALCIUM LONG-CHAIN ALKYL (C5-C10) PHENATE		17
CALCIUM LONG-CHAIN ALKYL (C11-C40) PHENATE		17
CALCIUM LONG-CHAIN ALKYL PHENATE SULPHIDE (C8- C40)		17
CALCIUM LONG-CHAIN ALKYL SALICYLATE (C13+)		17
CALCIUM LONG-CHAIN ALKYL (C18-C28) SALICYLATE		17
CALCIUM NITRATE/MAGNESIUM NITRATE/POTASSIUM CHLORIDE SOLUTION		17
CALCIUM NITRATE SOLUTIONS (50% OR LESS)		17
CAMELINA OIL		17
Camelina Sativa Oil	CAMELINA OIL	17

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Cane molasses (a)	MOLASSES	18
Canola oil	RAPESEED OIL (LOW ERUCIC ACID CONTAINING LESS THAN 4% FREE FATTY ACIDS)	17
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Caproic acid	HEXANOIC ACID	17
Caprolactam	EPSILON-CAPROLACTAM (MOLTEN OR AQUEOUS SOLUTIONS)	17
EPSILON-CAPROLACTAM (MOLTEN OR AQUEOUS SOLUTIONS)		17
Caproyl alcohol	HEXANOL	17
Capryl alcohol (a)	OCTANOL (ALL ISOMERS)	17
Caprylic acid (a)	OCTANOIC ACID (ALL ISOMERS)	17
Caprylyl acetate	N-OCTYL ACETATE	17
Carbamide solution	UREA SOLUTION	17
Carbinol	METHYL ALCOHOL (*)	17
Carbitol acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
Carbitol solvent (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Carbolic acid	PHENOL	17
CARBOLIC OIL		17
Carbon bisulphide	CARBON DISULPHIDE	17
CARBON DISULPHIDE		17
CARBON TETRACHLORIDE		17
Carbonyldiamide solution	UREA SOLUTION	17
Carbonyldiamine solution	UREA SOLUTION	17
Carboxyethyliminobis(ethylenenitrilo)tetraacetic acid, pentasodium salt solution	DIETHYLENETRIAMINEPENTAACETIC ACID, PENTASODIUM SALT SOLUTION	17
CASHEW NUT SHELL OIL (UNTREATED)		17
CASTOR OIL		17
Caustic potash solution	POTASSIUM HYDROXIDE SOLUTION (*)	17
Caustic soda	SODIUM HYDROXIDE SOLUTION (*)	17
Caustic soda solution	SODIUM HYDROXIDE SOLUTION (*)	17
Cellosolve acetate	2-ETHOXYETHYL ACETATE	17
Cesium formate solution	CESIUM FORMATE SOLUTION (*)	17
CESIUM FORMATE SOLUTION (*)		17
CETYL/EICOSYL METHACRYLATE MIXTURE		17
Cetyl / stearyl alcohol (a)	ALCOHOLS (C13+)	17
China clay	KAOLIN SLURRY	18
CHLORINATED PARAFFINS (C10-C13)		17
CHLORINATED PARAFFINS (C14-C17) (WITH 50% CHLORINE OR MORE, AND LESS THAN 1% C13 OR SHORTER CHAINS)		17
CHLOROACETIC ACID (80% OR LESS)		17
alpha-Chloroallyl chloride	1,3-DICHLOROPROPENE	17
Chloroallylene	ALLYL CHLORIDE	17
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2-Chloroethanol	ETHYLENE CHLOROHYDRIN	17
2-Chloro-N-ethoxymethyl-6'-ethylacet-o-toluidide	ACETOCHLOR	17
2-Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide	ACETOCHLOR	17
2-Chloroethyl alcohol	ETHYLENE CHLOROHYDRIN	17
beta-Chloroethyl alcohol	ETHYLENE CHLOROHYDRIN	17
Chloroethyl ether	DICHLOROETHYL ETHER	17
2-Chloro-6'-ethyl-N-(2-methoxy-1-methylethyl)acet-o-toluidide	N-(2-METHOXY-1-METHYL ETHYL)-2-ETHYL-6- METHYL CHLOROACETANILIDE	17
2-Chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1- methylethyl)acetamide	N-(2-METHOXY-1-METHYL ETHYL)-2-ETHYL-6- METHYL CHLOROACETANILIDE	17
CHLOROFORM		17
CHLOROHYDRINS (CRUDE)		17
m-Chloromethylbenzene	M-CHLOROTOLUENE	17
o-Chloromethylbenzene	O-CHLOROTOLUENE	17
p-Chloromethylbenzene	P-CHLOROTOLUENE	17
(Chloromethyl)ethylene oxide	EPICHLOROHYDRIN	17
(2-Chloro-I-methylethyl) ether	2,2'-DICHLOROISOPROPYL ETHER	17
2-Chloro-1-methylethyl ether	2,2'-DICHLOROISOPROPYL ETHER	17
Chloromethyloxirane	EPICHLOROHYDRIN	17
4-CHLORO-2-METHYLPHENOXYACETIC ACID, DIMETHYLAMINE SALT SOLUTION		17
1-Chloro-2-nitrobenzene	O-CHLORONITROBENZENE	17
O-CHLORONITROBENZENE		17
1-(4-CHLOROPHENYL)-4,4- DIMETHYL-PENTAN-3-ONE		17
2- or 3- Chloropropanoic acid	2- OR 3-CHLOROPROPIONIC ACID	17
3-Chloropropene	ALLYL CHLORIDE	17
2- OR 3-CHLOROPROPIONIC ACID		17
alpha- or beta- Chloropropionic acid	2- OR 3-CHLOROPROPIONIC ACID	17
	ALLYL CHLORIDE	17
3-Chloropropylene	ALLYL CHLORIDE	17
alpha-Chloropropylene Chloropropylene oxide	EPICHLOROHYDRIN	17
	EFICALOROHTDRIN	
		17
Chlorosulphuric acid	CHLOROSULPHONIC ACID	17
3-Chlorotoluene	M-CHLOROTOLUENE	17
4-Chlorotoluene	P-CHLOROTOLUENE	17
alpha-Chlorotoluene M-CHLOROTOLUENE	BENZYL CHLORIDE	17 17
O-CHLOROTOLUENE		17
P-CHLOROTOLUENE		17
CHLOROTOLUENES (MIXED ISOMERS)		17
CHOLINE CHLORIDE SOLUTIONS		17
Cinene		17
Cinnamene		17
Cinnamol	STYRENE MONOMER	17
cis-Butenedioic anhydride	MALEIC ANHYDRIDE	17

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Index Name	Product Name	Chapte
cis-9-Octadecenoic acid	OLEIC ACID	17
CITRIC ACID (70% OR LESS)		17
CLAY SLURRY		18
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Columbian spirits	METHYL ALCOHOL (*)	17
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2,6-Diaminotoluene (a)	TOLUENEDIAMINE	17
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DIBUTYL HYDROGEN PHOSPHONATE		17
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o-Dichlorobenzene (a)	DICHLOROBENZENE (ALL ISOMERS)	17
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2,2-DICHLOROPROPIONIC ACID		17
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DIETHYLAMINE		17
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1,4-Diethylene dioxide	1,4-DIOXANE	17
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Diethylene glycol butyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Diethylene glycol butyl ether acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	
DIETHYLENE GLYCOL DIBUTYL ETHER		17
DIETHYLENE GLYCOL DIETHYL ETHER		17
Diethylene glycol ethyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Diethylene glycol ethyl ether acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17

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Index Name	Product Name	Chapte
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Diethylene glycol monobutyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Diethylene glycol monobutyl ether acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
Diethylene glycol monoethyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Diethylene glycol monoethyl ether acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
Diethylene glycol monomethyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Diethylene glycol monomethyl ether acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
DIETHYLENE GLYCOL PHTHALATE		17
DIETHYLENETRIAMINE		17
DIETHYLENETRIAMINEPENTAACETIC ACID, PENTASODIUM SALT SOLUTION		17
N,N-Diethylethanamine	TRIETHYLAMINE	17
N,N-Diethylethanolamine	DIETHYLAMINOETHANOL	17
DIETHYL ETHER (*)		17
DI-(2-ETHYLHEXYL) ADIPATE		17
DI-(2-ETHYLHEXYL) PHOSPHORIC ACID		17
Di (2-ethylhexyl) Terephthalate	BIS(2-ETHYLHEXYL) TEREPHTHALATE	17
Diethyl oxide	DIETHYL ETHER (*)	17
DIETHYL PHTHALATE		17
DIETHYL SULPHATE		17
Diformyl	GLYOXAL SOLUTION (40% OR LESS)	17
DIGLYCIDYL ETHER OF BISPHENOL A		17
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2,3-Dihydroxybutane (a)	BUTYLENE GLYCOL	17
2,2'-Dihydroxydiethylamine	DIETHANOLAMINE	17
Di-(2-hydroxyethyl)amine	DIETHANOLAMINE	17
Dihydroxyethyl ether	DIETHYLENE GLYCOL	17
1,6-Dihydroxyhexane	HEXAMETHYLENE GLYCOL	17
1,2-Dihydroxypropane	PROPYLENE GLYCOL	18
Diisobutene	DIISOBUTYLENE	17
DIISOBUTYLAMINE		17
Diisobutylcarbinol (a)	NONYL ALCOHOL (ALL ISOMERS)	17
DIISOBUTYLENE		17
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2,4-Diisocyanatotoluene	TOLUENE DIISOCYANATE	17
Diisodecyl phthalate (a)	DIALKYL (C7-C13) PHTHALATES	17
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Diisononyl phthalate (a)	DIALKYL (C7-C13) PHTHALATES	17
DIISOOCTYL PHTHALATE		17
DIISOPROPANOLAMINE		17
DIISOPROPYLAMINE		17
DIISOPROPYLBENZENE (ALL ISOMERS)		17
	ISOPROPYL ETHER	17
Diisopropyl ether DIISOPROPYLNAPHTHALENE		17
Diisopropyl oxide N,N-DIMETHYLACETAMIDE	ISOPROPYL ETHER	17 17
N,N-DIMETHYLACETAMIDE SOLUTION (40% OR LESS)		17
Dimethylacetylene carbinol	2-METHYL-2-HYDROXY-3-BUTYNE	17
DIMETHYL ADIPATE		17
DIMETHYLAMINE SOLUTION (45% OR LESS)		17
DIMETHYLAMINE SOLUTION (GREATER THAN 45% BUT NOT GREATER THAN 55%)		17
DIMETHYLAMINE SOLUTION (GREATER THAN 55% BUT NOT GREATER THAN 65%)		17
Dimethylaminoethanol	DIMETHYLETHANOLAMINE	17
2-(Dimethylamino)ethanol	DIMETHYLETHANOLAMINE	17
Dimethylbenzenes	XYLENES	17
1,3-Dimethylbutanol	METHYLAMYL ALCOHOL	17
1,3-Dimethylbutan-1-ol	METHYLAMYL ALCOHOL	17
1,3-Dimethylbutyl acetate (a)	METHYLAMYL ACETATE	17
Dimethylcarbinol	ISOPROPYL ALCOHOL	18
N,N-DIMETHYLCYCLOHEXYLAMINE		17
DIMETHYL DISULPHIDE		17
N,N-Dimethyldodecanamine	N,N-DIMETHYLDODECYLAMINE	17
N,N-Dimethyldodecan-1-amine		17
N,N-DIMETHYLDODECYLAMINE	,	17
1,1-Dimethylethanol	TERT-BUTYL ALCOHOL	17
DIMETHYLETHANOLAMINE		17
	TERT-BUTYL ALCOHOL	17
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DIMETHYL GLUTARATE		17
2,6-Dimethyl-4-heptanone	DIISOBUTYL KETONE	17

RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS

CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

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DIMETHYL HYDROGEN PHOSPHITE		17
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1,1'-Dimethyl-2,2'-iminodiethanol	DIISOPROPANOLAMINE	17
Dimethyl ketal	ACETONE	18
Dimethyl ketone	ACETONE	18
N,N-dimethyllaurylamine	N,N-DIMETHYLDODECYLAMINE	17
N,N-Dimethylmethanamine solution (30% or less)	TRIMETHYLAMINE SOLUTION (30% OR LESS)	17
6,6-Dimethyl-2-methylenebicyclo[3.1.1]heptane	BETA-PINENE	17
DIMETHYL OCTANOIC ACID		17
2,2-Dimethyloctanoic acid (a)	NEODECANOIC ACID	17
2,3-Dimethylphenol (a)	XYLENOL	17
2,4-Dimethylphenol (a)	XYLENOL	17
2,5-Dimethylphenol (a)	XYLENOL	17
2,6-Dimethylphenol (a)	XYLENOL	17
3,4-Dimethylphenol (a)	XYLENOL	17
3,5-Dimethylphenol (a)	XYLENOL	17
Dimethylphenols	XYLENOL	17
Dimethylphenyl phosphate (3:1) (all isomers)	TRIXYLYL PHOSPHATE	17
DIMETHYL PHTHALATE		17
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2,2-Dimethylpropane (a)	PENTANE (ALL ISOMERS)	17
2,2-DIMETHYLPROPANE-1,3-DIOL (MOLTEN OR SOLU	TION)	17
2,2-Dimethylpropanoic acid	TRIMETHYLACETIC ACID	17
1,1-Dimethylpropargyl alcohol	2-METHYL-2-HYDROXY-3-BUTYNE	17
2,2-Dimethylpropionic acid	TRIMETHYLACETIC ACID	17
1,1-Dimethylpropyl ethyl ether	TERT-AMYL ETHYL ETHER	17
1,1-Dimethylpropynol	2-METHYL-2-HYDROXY-3-BUTYNE	17
DIMETHYL SUCCINATE		17
N,N-Dimethyltetradecanamine (a)	ALKYL (C12+) DIMETHYLAMINE	17
Dimethyl(tetradecyl)amine (a)	ALKYL (C12+) DIMETHYLAMINE	17
3,9-Dimethyltricyclo[5.2.1.02,6]deca-3,9-diene		17
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3,6-Dioaxaoctane-1,8-diol	TRIETHYLENE GLYCOL	18
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Dioctyl phosphoric acid	DI-(2-ETHYLHEXYL) PHOSPHORIC ACID	17
DIOCTYL PHTHALATE	· · · · · · · · · · · · · · · · · · ·	17
Dioctyl terephthalate	BIS(2-ETHYLHEXYL) TEREPHTHALATE	17
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1,4-DIOXANE		17

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Dioxyethylene ether	1,4-DIOXANE	17
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Diphenyl dodecyl oxide disulphonate solution	DODECYL DIPHENYL ETHER DISULPHONATE SOLUTION	17
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DIPHENYL ETHER/DIPHENYL PHENYL ETHER MIXTURE		17
DIPHENYLMETHANE DIISOCYANATE		17
DIPHENYLOL PROPANE-EPICHLOROHYDRIN RESINS		17
Diphenyl oxide Diphenyl oxide / diphenyl phenyl ether mixture	DIPHENYL ETHER DIPHENYL ETHER/DIPHENYL PHENYL	17 17
Dipropylamine	ETHER MIXTURE DI-N-PROPYLAMINE	17
n-Dipropylamine	DI-N-PROPYLAMINE	17
DI-N-PROPYLAMINE		17
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Dipropylene glycol methyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Dipropylene glycol monomethyl ether (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Disodium carbonate solution	SODIUM CARBONATE SOLUTION (*)	17
Distillates (Petroleum), Steam Cracked, C8 - C12 Fraction (a)	RESIN OIL, DISTILLED	17
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DITRIDECYL PHTHALATE		17
DIUNDECYL PHTHALATE		17
dl-Lactic acid	LACTIC ACID	17
di-Lactic acid dl-p-Mentha-1,8-diene	DIPENTENE	17
1-Docosanol (a)	ALCOHOLS (C13+)	17
Docosan-1-ol (a)	ALCOHOLS (C13+) ALCOHOLS (C13+)	17
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	N-DODECYL MERCAPTAN	17 17
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Dodecan-1-ol	DODECYL ALCOHOL	17
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DODECYL ALCOHOL		17
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DODECYLBENZENE		17
Dodecylbenzenesulphonic acid (contains 1.5% sulphuric acid)	ALKYL (C11-C17) BENZENE SULPHONIC ACID	17
Dodecyldimethylamine	N,N-DIMETHYLDODECYLAMINE	17
DODECYL DIPHENYL ETHER DISULPHONATE SOLUTION		17
Dodecyl diphenyl oxide disulphonate solution	DODECYL DIPHENYL ETHER DISULPHONATE SOLUTION	17
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Dodecylic acid	LAURIC ACID	17
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tert-Dodecyl mercaptan	TERT-DODECANETHIOL	17
DODECYL METHACRYLATE		17
Dodecyl 2-methylprop-2-enoate	DODECYL METHACRYLATE	17
Dodecyl-2-methyl-2-propenoate	DODECYL METHACRYLATE	17
DODECYL/OCTADECYL METHACRYLATE MIXTURE		17
DODECYL/PENTADECYL METHACRYLATE MIXTURE		17
DODECYL PHENOL		17
Dodecyl, Tetradecyl, hexadecyl-dimethylamine mixture	ALKYL (C12+) DIMETHYLAMINE	17
2-Dodecylthio-1-methylethanol	DODECYL HYDROXYPROPYL SULPHIDE	17
1-(Dodecylthio)propan-2-ol	DODECYL HYDROXYPROPYL SULPHIDE	17
DODECYL XYLENE		17
Drilling brine: potassium chloride solution	POTASSIUM CHLORIDE SOLUTION	17
DRILLING BRINES (CONTAINING CALCIUM BROMIDE)		17
DRILLING BRINES (CONTAINING ZINC CHLORIDE)		17
(E)-But-2-enal	CROTONALDEHYDE	17
Enanthic acid	N-HEPTANOIC ACID	17
Enanthylic acid	N-HEPTANOIC ACID	17
Engravers' acid	NITRIC ACID (70% AND OVER)	17
EPICHLOROHYDRIN		17
1,2-Epoxybutane	1,2-BUTYLENE OXIDE	17
1,4-epoxybutane	TETRAHYDROFURAN	17
1,2-Epoxypropane	PROPYLENE OXIDE	17
2,3-Epoxypropyl ester of mixed C10 trialkylacetic acids	GLYCIDYL ESTER OF C10 TRIALKYLACETIC ACID	17
2,3-Epoxypropyl neodecanoate	GLYCIDYL ESTER OF C10 TRIALKYLACETIC ACID	17
EPTC	S-ETHYL DIPROPYLTHIOCARBAMATE	17
Essence of Mirbane	NITROBENZENE	17
Essence of Myrbane	NITROBENZENE	17

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Index Name	Product Name	Chapte
Ethanecarbonitrile	PROPIONITRILE	17
Ethanedial	GLYOXAL SOLUTION (40% OR LESS)	17
1,2-Ethanediol	ETHYLENE GLYCOL	17
Ethanoic acid	ACETIC ACID	17
Ethanoic anhydride	ACETIC ANHYDRIDE	17
Ethanol	ETHYL ALCOHOL	18
ETHANOLAMINE		17
ethenyl acetate	VINYL ACETATE	17
ethenyl ethanoate	VINYL ACETATE	17
Ether	DIETHYL ETHER (*)	17
Ethinyl trichloride	TRICHLOROETHYLENE	17
2-Ethoxyethanol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-(2-Ethoxyethoxy)ethanol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
2-(2-Ethoxyethoxy)ethyl acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
2-ETHOXYETHYL ACETATE		17
ETHOXYLATED LONG CHAIN (C16+) ALKYLOXYALKYLAMINE		17
ETHOXYLATED TALLOW AMINE (> 95%)		17
2-Ethoxy-2-methylpropane	ETHYL TERT-BUTYL ETHER	17
1-Ethoxypropan-2-ol (a)	PROPYLENE GLYCOL MONOALKYL ETHER	17
ETHYL ACETATE		17
ETHYL ACETOACETATE		17
Ethyl acetone	METHYL PROPYL KETONE	17
ETHYL ACRYLATE		17
ETHYL ALCOHOL		18
ETHYLAMINE (*)		17
ETHYLAMINE SOLUTIONS (72% OR LESS)		17
Ethylaminocyclohexane	N-ETHYLCYCLOHEXYLAMINE	17
		17
ETHYLBENZENE		17
Ethyl benzol	ETHYLBENZENE	17
Ethyl butanoate	ETHYL BUTYRATE	17
ETHYL TERT-BUTYL ETHER		17
ETHYL BUTYRATE		17
2-Ethylcaproic acid	2-ETHYLHEXANOIC ACID	17
Ethyl carbinol	N-PROPYL ALCOHOL	17
Ethyl cyanide	PROPIONITRILE	17
ETHYLCYCLOHEXANE		17
N-ETHYLCYCLOHEXYLAMINE		17
Ethyldimethylmethane (a)	PENTANE (ALL ISOMERS)	17
S-Ethyl dipropylcarbamothioate	S-ETHYL DIPROPYLTHIOCARBAMATE	17
S-ETHYL DIPROPYLTHIOCARBAMATE		17
Ethylene alcohol	ETHYLENE GLYCOL	17
Ethylene bis(iminodiacetic acid) tetrasodium salt solution	ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT SOLUTION	17

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Index Name	Product Name	Chapte
Ethylene bromide	ETHYLENE DIBROMIDE	17
ETHYLENE CARBONATE		17
Ethylenecarboxylic acid	ACRYLIC ACID	17
Ethylene chloride	ETHYLENE DICHLORIDE	17
ETHYLENE CHLOROHYDRIN		17
ETHYLENE CYANOHYDRIN		17
Ethylene diacetate	ETHYLENE GLYCOL DIACETATE	17
ETHYLENEDIAMINE		17
ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT SOLUTION		17
ETHYLENE DIBROMIDE		17
ETHYLENE DICHLORIDE		17
Ethylenedinitrilotetraacetic acid tetrasodium salt solution	ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT SOLUTION	17
2,2'-Ethylenedioxydiethanol	TRIETHYLENE GLYCOL	18
ETHYLENE GLYCOL		17
ETHYLENE GLYCOL ACETATE		17
Ethylene glycol acrylate	2-HYDROXYETHYL ACRYLATE	17
Ethylene glycol butyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
		17
Ethylene glycol n-butyl ether (58%)/ Hyperbranched polyesteramide (42%)	2-BUTOXYETHANOL (58%)/HYPERBRANCHED POLYESTERAMIDE (42%) (MIXTURE)	17
Ethylene glycol tert-butyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
		17
Ethylene glycol ethyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol ethyl ether acetate	2-ETHOXYETHYL ACETATE	17
Ethylene glycol isopropyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol methyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
		17
ETHYLENE GLYCOL MONOALKYL ETHERS		17
Ethylene glycol monoalkyl ethers (58%)/ Hyperbranched polyesteramide (42%)	2-BUTOXYETHANOL (58%)/HYPERBRANCHED POLYESTERAMIDE (42%) (MIXTURE)	17
Ethylene glycol monobutyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol monobutyl ether (58%)/ Hyperbranched polyesteramide (42%)	2-BUTOXYETHANOL (58%)/HYPERBRANCHED POLYESTERAMIDE (42%) (MIXTURE)	17
Ethylene glycol mono-tert-butyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol monoethyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol monoethyl ether acetate	2-ETHOXYETHYL ACETATE	17
Ethylene glycol monomethyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Ethylene glycol monomethyl ether acetate	ETHYLENE GLYCOL METHYL ETHER ACETATE	17
Ethylene glycol monophenyl ether	ETHYLENE GLYCOL PHENYL ETHER	17
ETHYLENE GLYCOL PHENYL ETHER		17
ETHYLENE GLYCOL PHENYL ETHER/DIETHYLENE GLYCOL PHENYL ETHER MIXTURE		17
ETHYLENE GLYCOL (>75%)/SODIUM ALKYL CARBOXYLATES/BORAX MIXTURE		17

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Index Name ETHYLENE GLYCOL (>85%)/SODIUM ALKYL	Product Name	Chapte 17
CARBOXYLATES MIXTURE		17
ETHYLENE OXIDE/PROPYLENE OXIDE MIXTURE WITH AN ETHYLENE OXIDE CONTENT OF NOT MORE THAN 30% BY MASS		17
Ethylene tetrachloride	PERCHLOROETHYLENE	17
Ethylene trichloride	TRICHLOROETHYLENE	17
ETHYLENE-VINYL ACETATE COPOLYMER (EMULSION)		17
Ethyl ethanoate	ETHYL ACETATE	17
Ethyl ether	DIETHYL ETHER (*)	17
ETHYL-3-ETHOXYPROPIONATE		17
Ethyl fluid (a)	MOTOR FUEL ANTI-KNOCK COMPOUND (CONTAINING LEAD ALKYLS)	17
Ethylformic acid	PROPIONIC ACID	17
Ethyl glycol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-Ethylhexaldehyde (a)	OCTYL ALDEHYDES	17
2-Ethylhexanal (a)	OCTYL ALDEHYDES	17
2-ETHYLHEXANOIC ACID		17
2-Ethylhexanol (a)	OCTANOL (ALL ISOMERS)	17
2-Ethylhexenal	2-ETHYL-3-PROPYLACROLEIN	17
2-Ethylhex-2-enal	2-ETHYL-3-PROPYLACROLEIN	17
2-Ethylhexoic acid (a)	OCTANOIC ACID (ALL ISOMERS)	17
2-ETHYLHEXYL ACRYLATE		17
2-Ethylhexyl alcohol (a)	OCTANOL (ALL ISOMERS)	17
2-ETHYLHEXYLAMINE		17
2-ETHYL-2-(HYDROXYMETHYL) PROPANE-1,3-DIOL (C8-C10) ESTER		17
Ethylic acid	ACETIC ACID	17
5-Ethylidenebicyclo(2.2.1)hept-2-ene	ETHYLIDENE NORBORNENE	17
Ethylidene chloride	1,1-DICHLOROETHANE	17
ETHYLIDENE NORBORNENE		17
ETHYL METHACRYLATE		17
N-ETHYLMETHYLALLYLAMINE		17
N-Ethyl-2-methylallylamine	N-ETHYLMETHYLALLYLAMINE	17
2-Ethyl-6-methylaniline	2-METHYL-6-ETHYL ANILINE	17
2-Ethyl-6-methylbenzenamine	2-METHYL-6-ETHYL ANILINE	17
1-ethyl-4-methylbenzene	ETHYL TOLUENE	17
Ethyl methyl ketone	METHYL ETHYL KETONE	17
5-Ethyl-2-methylpyridine	2-METHYL-5-ETHYL PYRIDINE	17
Ethyl oxide	DIETHYL ETHER (*)	17
Ethyl phosphate	TRIETHYL PHOSPHATE	17
Ethyl phthalate	DIETHYL PHTHALATE	17
5-Ethyl-2-picoline	2-METHYL-5-ETHYL PYRIDINE	17
Ethyl propenoate	ETHYL ACRYLATE	17
ETHYL PROPIONATE		17
2-ETHYL-3-PROPYLACROLEIN		17
Ethyl sulphate	DIETHYL SULPHATE	17
ETHYL TOLUENE		17

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Index Name	Product Name	Chapte
6-Ethyl-2-toluidine	2-METHYL-6-ETHYL ANILINE	17
6-Ethyl-o-toluidine	2-METHYL-6-ETHYL ANILINE	17
Ethyl vinyl ether	VINYL ETHYL ETHER	17
Extra virgin grape seed oil	GRAPE SEED OIL	17
FATTY ACID (SATURATED C13+)		17
FATTY ACID METHYL ESTERS (M)		17
FATTY ACIDS, (C8-C10)		17
FATTY ACIDS, (C12+)		17
FATTY ACIDS, (C16+)		17
FATTY ACIDS, ESSENTIALLY LINEAR (C6-C18) 2- ETHYLHEXYL ESTER		17
Feeding corn molasses (a)	MOLASSES	18
Fermentation alcohol	ETHYL ALCOHOL	18
FERRIC CHLORIDE SOLUTIONS		17
FERRIC NITRATE/NITRIC ACID SOLUTION		17
FISH OIL		17
FISH PROTEIN CONCENTRATE (CONTAINING 4% OR LESS FORMIC ACID)		17
FISH SILAGE PROTEIN CONCENTRATE (CONTAINING 4% OR LESS FORMIC ACID)		17
FLUOROSILICIC ACID SOLUTION (20-30%)		17
FORMALDEHYDE SOLUTIONS (45% OR LESS)		17
Formaldehyde trimer	1,3,5-TRIOXANE	17
Formalin	FORMALDEHYDE SOLUTIONS (45% OR LESS)	17
FORMAMIDE		17
Formdimethylamide	DIMETHYLFORMAMIDE	17
FORMIC ACID (85% OR LESS ACID)		17
FORMIC ACID (OVER 85%)		17
FORMIC ACID MIXTURE (CONTAINING UP TO 18% PROPIONIC ACID AND UP TO 25% SODIUM FORMATE)		17
Formic aldehyde	FORMALDEHYDE SOLUTIONS (45% OR LESS)	17
Formylformic acid	GLYOXYLIC ACID SOLUTION (50 % OR LESS)	17
Fural	FURFURAL	17
2-Furaldehyde	FURFURAL	17
2,5-Furandione		17
Furan-2,5-dione	MALEIC ANHYDRIDE	17
FURFURAL		17
2-Furfuraldehyde	FURFURAL	17
FURFURYL ALCOHOL		17
Furylcarbinol	FURFURYL ALCOHOL	17
Fused poly(2+)cyclic aromatic hydrocarbons (b)	POLY(2+)CYCLIC AROMATICS	17
Gaultheria oil	METHYL SALICYLATE	17
Gauthena on		

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Index Name	Product Name	Chapter
GLUCITOL/GLYCEROL BLEND PROPOXYLATED (CONTAINING LESS THAN 10% AMINES)		17
Glucitol solution	SORBITOL SOLUTION	18
D-Glucitol solution	SORBITOL SOLUTION	18
GLUCOSE SOLUTION		18
GLUTARALDEHYDE SOLUTIONS (50% OR LESS)		17
Glycerin	GLYCERINE	17
GLYCERINE		17
Glycerin triacetate	GLYCERYL TRIACETATE	17
Glyceritol	GLYCERINE	17
Glycerol	GLYCERINE	17
GLYCEROL ETHOXYLATED		18
GLYCEROL MONOOLEATE		17
Glycerol oleate	GLYCEROL MONOOLEATE	17
Glycerol 1-oleate	GLYCEROL MONOOLEATE	17
GLYCEROL PROPOXYLATED		17
GLYCEROL, PROPOXYLATED AND ETHOXYLATED		17
GLYCEROL/SUCROSE BLEND PROPOXYLATED AND ETHOXYLATED		17
Glycerol triacetate	GLYCERYL TRIACETATE	17
GLYCERYL TRIACETATE		17
GLYCIDYL ESTER OF C10 TRIALKYLACETIC ACID		17
Glycidyl neodecanoate	GLYCIDYL ESTER OF C10 TRIALKYLACETIC	17
GLYCINE, SODIUM SALT SOLUTION	ACID	17
Glycol	ETHYLENE GLYCOL	17
Glycol carbonate	ETHYLENE CARBONATE	17
Glycol chlorohydrin	ETHYLENE CHLOROHYDRIN	17
Glycol dichloride	ETHYLENE DICHLORIDE	17
GLYCOLIC ACID SOLUTION (70% OR LESS)		17
Glycol monobutyl ether (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
Glycols, polyethylene mono(p-nonylphenyl) ether (b)	ALKARYL POLYETHERS (C9-C20)	17
Glycyl alcohol	GLYCERINE	17
Glyoxaldehyde	GLYOXAL SOLUTION (40% OR LESS)	17
Glyoxalic acid	GLYOXYLIC ACID SOLUTION (50 % OR LESS)	17
GLYOXAL SOLUTION (40% OR LESS)		17
GLYOXYLIC ACID SOLUTION (50 % OR LESS)		17
Glyphosate	GLYPHOSATE SOLUTION (NOT CONTAINING SURFACTANT)	17
Glyphosate-mono(isopropylammonium)	GLYPHOSATE SOLUTION (NOT CONTAINING SURFACTANT)	17
GLYPHOSATE SOLUTION (NOT CONTAINING SURFACTANT)		17
Grain alcohol	ETHYL ALCOHOL	18
GRAPE SEED OIL		17
GROUNDNUT OIL		17
Hemimellitene (a)	TRIMETHYLBENZENE (ALL ISOMERS)	17
Hendecanoic acid	UNDECANOIC ACID	17

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Index Name	Product Name	Chapte
1-Hendecanol	UNDECYL ALCOHOL	17
cyclo-Heptamethylene	CYCLOHEPTANE	17
HEPTANE (ALL ISOMERS)		17
1-Heptanecarboxylic acid (a)	OCTANOIC ACID (ALL ISOMERS)	17
3-Heptanecarboxylic acid (a)	OCTANOIC ACID (ALL ISOMERS)	17
Heptanoic acid	N-HEPTANOIC ACID	17
N-HEPTANOIC ACID		17
HEPTANOL (ALL ISOMERS) (D)		17
2-Heptanone	METHYL AMYL KETONE	17
Heptan-2-one	METHYL AMYL KETONE	17
HEPTENE (ALL ISOMERS)		17
Heptoic acid	N-HEPTANOIC ACID	17
HEPTYL ACETATE		17
Heptyl alcohol, all isomers (a)	HEPTANOL (ALL ISOMERS) (D)	17
Heptylcarbinol (a)	OCTANOL (ALL ISOMERS)	17
Heptylene, mixed isomers	HEPTENE (ALL ISOMERS)	17
Heptylic acid	N-HEPTANOIC ACID	17
n-Heptylic acid	N-HEPTANOIC ACID	17
1-Hexadecene	OLEFINS (C13+, ALL ISOMERS)	17
Hexadecyl and icosyl methacrylate mixture (a)	CETYL/EICOSYL METHACRYLATE MIXTURE	17
1-HEXADECYLNAPHTHALENE / 1,4- BIS(HEXADECYL)NAPHTHALENE MIXTURE		17
HexadecyInaphthalene/dihexadecyInaphthalene mixture	1-HEXADECYLNAPHTHALENE / 1,4- BIS(HEXADECYL)NAPHTHALENE MIXTURE	17
Hexadecyl / octadecyl alcohol (a)	ALCOHOLS (C13+)	17
Hexaethylene glycol (a)	POLYETHYLENE GLYCOL	17
Hexafluorosilicate solution (20-30%)	FLUOROSILICIC ACID SOLUTION (20-30%)	17
Hexahydroaniline	CYCLOHEXYLAMINE	17
Hexahydro-1H-azepine	HEXAMETHYLENEIMINE	17
Hexahydrobenzene	CYCLOHEXANE	17
Hexahydro-I-H-azepine	HEXAMETHYLENEIMINE	17
Hexahydrophenol	CYCLOHEXANOL	17
Hexahydrotoluene	METHYLCYCLOHEXANE	17
Hexamethylene	CYCLOHEXANE	17
HEXAMETHYLENEDIAMINE (MOLTEN)		17
HEXAMETHYLENEDIAMINE ADIPATE (50% IN WATER)		17
HEXAMETHYLENEDIAMINE SOLUTION		17
1,6-Hexamethylenediamine solution	HEXAMETHYLENEDIAMINE SOLUTION	17
Hexamethylenediammonium adipate solution (50% solution)	HEXAMETHYLENEDIAMINE ADIPATE (50% IN WATER)	17
HEXAMETHYLENE DIISOCYANATE		17
Hexamethylene-1,6-diisocyanate	HEXAMETHYLENE DIISOCYANATE	17
HEXAMETHYLENE GLYCOL		17
HEXAMETHYLENEIMINE		17
HEXAMETHYLENETETRAMINE SOLUTIONS		17
Hexamine	HEXAMETHYLENETETRAMINE SOLUTIONS	17
Hexanaphthene	CYCLOHEXANE	17

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1,6-Hexandiamine hexanedioate (1:1)	Product Name HEXAMETHYLENEDIAMINE ADIPATE (50%	Chapt 17
	IN WATER)	
HEXANE (ALL ISOMERS)		17
1,6-Hexanediamine	HEXAMETHYLENEDIAMINE (MOLTEN)	17
1,6-Hexanediamine solutions	HEXAMETHYLENEDIAMINE SOLUTION	17
Hexane-1,6-diamine solutions	HEXAMETHYLENEDIAMINE SOLUTION	17
Hexanedioic acid, bis(2-ethylhexyl) ester	DI-(2-ETHYLHEXYL) ADIPATE	17
1,6-Hexanediol	HEXAMETHYLENE GLYCOL	17
Hexane-1,6-diol	HEXAMETHYLENE GLYCOL	17
1,6-HEXANEDIOL, DISTILLATION OVERHEADS		17
n-Hexane	HEXANE (ALL ISOMERS)	17
HEXANOIC ACID		17
HEXANOL		17
Hexan-1-ol	HEXANOL	17
2-Hexanone	METHYL BUTYL KETONE	17
Hexan-2-one	METHYL BUTYL KETONE	17
HEXENE (ALL ISOMERS)		17
1-Hexene (a)	HEXENE (ALL ISOMERS)	17
Hex-1-ene (a)	HEXENE (ALL ISOMERS)	17
2-Hexene (a)	HEXENE (ALL ISOMERS)	17
Hexone	METHYL ISOBUTYL KETONE	17
HEXYL ACETATE		17
sec-Hexyl acetate	METHYLAMYL ACETATE	17
Hexyl alcohol	HEXANOL	17
Hexylene (a)	HEXENE (ALL ISOMERS)	17
HEXYLENE GLYCOL		17
Hexyl ethanoate	HEXYL ACETATE	17
Highly-Reactive Polyisobutylene	POLY(4+)ISOBUTYLENE (MW>224)	17
Homopiperidine	HEXAMETHYLENEIMINE	17
HYDROCARBON WAX		17
HYDROCHLORIC ACID (*)		17
Hydrofluorosilic acid solution (20-30%)	FLUOROSILICIC ACID SOLUTION (20-30%)	17
Hydrofuran	TETRAHYDROFURAN	17
Hydrogenated maltose syrup	MALTITOL SOLUTION	18
Hydrogenated oligosaccharide	HYDROGENATED STARCH HYDROLYSATE	18
HYDROGENATED STARCH HYDROLYSATE		18
Hydrogencarboxylic acid	FORMIC ACID (85% OR LESS ACID)	17
Hydrogen chloride, aqueous	HYDROCHLORIC ACID (*)	17
HYDROGEN PEROXIDE SOLUTIONS (OVER 60% BUT NOT OVER 70% BY MASS)		17
HYDROGEN PEROXIDE SOLUTIONS (OVER 8% BUT NOT OVER 60% BY MASS)		17
Hydrogen sulphate	SULPHURIC ACID	17
alpha-Hydro-omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)]	POLYPROPYLENE GLYCOL	17
Hydroxyacetic acid	GLYCOLIC ACID SOLUTION (70% OR LESS)	17
Hydroxybenzene	PHENOL	17
4-Hydroxybutanoic acid lactone	GAMMA-BUTYROLACTONE	17

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Index Name	Product Name	Chapte
gamma-Hydroxybutyric acid lactone	GAMMA-BUTYROLACTONE	17
Hydroxydimethylbenzenes	XYLENOL	17
Hydroxyethanoic acid	GLYCOLIC ACID SOLUTION (70% OR LESS)	17
2-Hydroxyethyl acetate	ETHYLENE GLYCOL ACETATE	17
2-HYDROXYETHYL ACRYLATE		17
beta-Hydroxyethyl acrylate	2-HYDROXYETHYL ACRYLATE	17
2-Hydroxyethylamine	ETHANOLAMINE	17
N-beta-Hydroxyethylethylenediamine	AMINOETHYL ETHANOLAMINE	17
N-(HYDROXYETHYL)ETHYLENEDIAMINETRIACETIC ACID, TRISODIUM SALT SOLUTION		17
beta-Hydroxyethyl phenyl ether	ETHYLENE GLYCOL PHENYL ETHER	17
2-Hydroxyethyl propenoate	2-HYDROXYETHYL ACRYLATE	17
2-Hydroxyethyl 2-propenoate	2-HYDROXYETHYL ACRYLATE	17
alpha-Hydroxyisobutyronitrile	ACETONE CYANOHYDRIN	17
4-Hydroxy-2-keto-4-methylpentane	DIACETONE ALCOHOL	17
4-Hydroxy-4-methylpentanone-2	DIACETONE ALCOHOL	17
4-Hydroxy-4-methylpentan-2-one	DIACETONE ALCOHOL	17
2-Hydroxy-2-methylpropiononitrile	ACETONE CYANOHYDRIN	17
2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID		17
2-Hydroxy-4-(methylthio)butyric acid	2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID	17
2-Hydroxynitrobenzene (molten)	O-NITROPHENOL (MOLTEN)	17
1-Hydroxy-2-phenoxyethane	ETHYLENE GLYCOL PHENYL ETHER	17
2-Hydroxypropanoic acid	LACTIC ACID	17
2-Hydroxypropionic acid	LACTIC ACID	17
alpha-Hydroxypropionic acid	LACTIC ACID	17
3-Hydroxypropionic acid, lactone.	BETA-PROPIOLACTONE	17
beta-Hydroxypropionitrile	ETHYLENE CYANOHYDRIN	17
2-Hydroxypropionitrile solution (80% or less)	LACTONITRILE SOLUTION (80% OR LESS)	17
alpha-Hydroxypropionitrile solution (80% or less)	LACTONITRILE SOLUTION (80% OR LESS)	17
3-Hydroxypropiononitrile		17
2-Hydroxypropiononitrile solution (80% or less)	LACTONITRILE SOLUTION (80% OR LESS)	17
2-[2-(2-hydroxypropoxy)propoxy]propan-1-ol	TRIPROPYLENE GLYCOL	17
2-Hydroxypropylamine	ISOPROPANOLAMINE	17
3-Hydroxypropylamine	N-PROPANOLAMINE	17
alpha-Hydroxytoluene	BENZYL ALCOHOL	17
3-Hydroxy-2,2,4-trimethylpentyl isobutyrate	2,2,4-TRIMETHYL-1,3-PENTANEDIOL-1- ISOBUTYRATE	17
ILLIPE OIL		17
2,2'-Iminodi(ethylamine)	DIETHYLENETRIAMINE	17
2,2'-Iminodiethanol	DIETHANOLAMINE	17
1,1'-Iminodipropan-2-ol	DIISOPROPANOLAMINE	17
Iron (III) chloride solutions	FERRIC CHLORIDE SOLUTIONS	17
Iron (III) nitrate / nitric acid solution	FERRIC NITRATE/NITRIC ACID SOLUTION	17
Isoacetophenone	ISOPHORONE	17
Isoamyl acetate (a)	AMYL ACETATE (ALL ISOMERS)	17
ISOAMYL ALCOHOL		17
Isobutaldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17

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Index Name	Product Name	Chapte
Isobutanol	ISOBUTYL ALCOHOL	17
Isobutanolamine	2-AMINO-2-METHYL-1-PROPANOL	17
Isobutyl acetate	BUTYL ACETATE (ALL ISOMERS)	17
Isobutyl acrylate (a)	BUTYL ACRYLATE (ALL ISOMERS)	17
ISOBUTYL ALCOHOL		17
lsobutyl aldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
Isobutylamine (a)	BUTYLAMINE (ALL ISOMERS)	17
Isobutylcarbinol	ISOAMYL ALCOHOL	17
ISOBUTYL FORMATE		17
Isobutyl ketone	DIISOBUTYL KETONE	17
ISOBUTYL METHACRYLATE		17
IsobutyImethylcarbinol	METHYLAMYL ALCOHOL	17
Isobutyl methyl ketone	METHYL ISOBUTYL KETONE	17
IsobutyImethyImethanol	METHYLAMYL ALCOHOL	17
Isobutyraldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
Isobutyric aldehyde (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
alpha-Isocyanatobenzyl-omega-isocyanatophenylpoly[(phenyl isocyanate)-alt-formaldehyde]	POLYMETHYLENE POLYPHENYL ISOCYANATE	17
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	ISOPHORONE DIISOCYANATE	17
Isodecanol	DECYL ALCOHOL (ALL ISOMERS)	17
Isodecyl alcohol	DECYL ALCOHOL (ALL ISOMERS)	17
lsododecane (a)	DODECANE (ALL ISOMERS)	17
lsodurene (a)	TETRAMETHYLBENZENE (ALL ISOMERS)	17
Isononanoic acid	NONANOIC ACID (ALL ISOMERS)	17
Isononanol	NONYL ALCOHOL (ALL ISOMERS)	17
Isooctane (a)	OCTANE (ALL ISOMERS)	17
Isooctanol	OCTANOL (ALL ISOMERS)	17
Isopentane (a)	PENTANE (ALL ISOMERS)	17
Isopentanol	AMYL ALCOHOL, PRIMARY	17
Isopentanol	ISOAMYL ALCOHOL	17
Isopentyl acetate (a)	AMYL ACETATE (ALL ISOMERS)	17
Isopentyl alcohol	ISOAMYL ALCOHOL	17
ISOPHORONE		17
ISOPHORONEDIAMINE		17
ISOPHORONE DIISOCYANATE		17
ISOPRENE		17
Isopropanol	ISOPROPYL ALCOHOL	18
ISOPROPANOLAMINE		17
Isopropenylbenzene	ALPHA-METHYLSTYRENE	17
2-Isopropoxyethanol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-Isopropoxypropane	ISOPROPYL ETHER	17
ISOPROPYL ACETATE		17
	METHYL ISOBUTYL KETONE	17
ISOPROPYL ALCOHOL		18
ISOPROPYLAMINE		17
ISOPROPYLAMINE (70% OR LESS) SOLUTION		17

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Index Name	Product Name	Chapte
Isopropylammonium N-(phosphonomethyl)glycine	GLYPHOSATE SOLUTION (NOT CONTAINING SURFACTANT)	17
Isopropylcarbinol	ISOBUTYL ALCOHOL	17
Isopropyl carbinol	ISOBUTYL ALCOHOL	17
ISOPROPYLCYCLOHEXANE		17
1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate	2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE	17
ISOPROPYL ETHER		17
Isopropylideneacetone	MESITYL OXIDE	17
Isopropyl oxide	ISOPROPYL ETHER	17
4-Isopropyltoluene	P-CYMENE	17
p-Isopropyltoluene	P-CYMENE	17
4-Isopropyltoluol	P-CYMENE	17
Isovaleral	VALERALDEHYDE (ALL ISOMERS)	17
Isovaleraldehyde	VALERALDEHYDE (ALL ISOMERS)	17
Isovaleric aldehyde	VALERALDEHYDE (ALL ISOMERS)	17
Isovalerone	DIISOBUTYL KETONE	17
JATROPHA OIL		17
Kaolin clay slurry	KAOLIN SLURRY	18
Kaolinite slurry	KAOLIN SLURRY	18
KAOLIN SLURRY		18
Ketohexamethylene	CYCLOHEXANONE	17
Ketone propane	ACETONE	18
Ketopropane	ACETONE	18
LACTIC ACID		17
LACTONITRILE SOLUTION (80% OR LESS)		17
LARD		17
LATEX, AMMONIA (1% OR LESS)- INHIBITED		17
LATEX: CARBOXYLATED STYRENE-BUTADIENE COPOLYMER; STYRENE-BUTADIENE RUBBER		17
LAURIC ACID		17
Lauryl alcohol	DODECYL ALCOHOL	17
Lead alkyls, n.o.s. (a)	MOTOR FUEL ANTI-KNOCK COMPOUND (CONTAINING LEAD ALKYLS)	17
Lead tetraethyl (a)	MOTOR FUEL ANTI-KNOCK COMPOUND (CONTAINING LEAD ALKYLS)	17
Lead tetramethyl (a)	MOTOR FUEL ANTI-KNOCK COMPOUND (CONTAINING LEAD ALKYLS)	17
LECITHIN		18
LIGNINSULPHONIC ACID, MAGNESIUM SALT SOLUTION		17
LIGNINSULPHONIC ACID, SODIUM SALT SOLUTION		17
Limonene	DIPENTENE	17
Linear alkylbenzene (LAB) bottoms (a)	ALKYLBENZENE DISTILLATION BOTTOMS	17
Linear alkyl(C12-C16) propoxyamine ethoxylate	ALKYL(C12-C16) PROPOXYAMINE ETHOXYLATE	17
LINSEED OIL		17
LIQUID CHEMICAL WASTES		17
Liquid paraffin	N-ALKANES (C10-C20)	17
LONG-CHAIN ALKARYL POLYETHER (C11-C20)		17

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	Product Name	Chapte
LONG-CHAIN ALKARYL SULPHONIC ACID (C16-C60)		17
LONG-CHAIN ALKYLPHENATE/PHENOL SULPHIDE MIXTURE		17
LONG-CHAIN ALKYLPHENOL (C14-C18)		17
LONG-CHAIN ALKYLPHENOL (C18-C30)		17
Lye, soda solution	SODIUM HYDROXIDE SOLUTION (*)	17
L-LYSINE SOLUTION (60% OR LESS)		17
Magnesia hydrate	MAGNESIUM HYDROXIDE SLURRY	17
MAGNESIUM CHLORIDE SOLUTION		17
MAGNESIUM HYDROXIDE SLURRY		17
Magnesium Lignasulphonate solution	LIGNINSULPHONIC ACID, MAGNESIUM SALT SOLUTION	17
MAGNESIUM LONG-CHAIN ALKARYL SULPHONATE (C11-C50)		17
MAGNESIUM LONG-CHAIN ALKYL SALICYLATE (C11+)		17
MALEIC ANHYDRIDE		17
MALEIC ANHYDRIDE-SODIUM ALLYLSULPHONATE COPOLYMER SOLUTION		17
Maltitol	MALTITOL SOLUTION	18
MALTITOL SOLUTION		18
Maltitol syrup	MALTITOL SOLUTION	18
MANGO KERNEL OIL		17
Meglumine solution (70% or less)	N-METHYLGLUCAMINE SOLUTION (70% OR LESS)	17
MERCAPTOBENZOTHIAZOL, SODIUM SALT SOLUTION		17
Mesitylene	TRIMETHYLBENZENE (ALL ISOMERS)	17
MESITYL OXIDE		17
Metaformaldehyde	1,3,5-TRIOXANE	17
Metam-sodium	METAM SODIUM SOLUTION	17
METAM SODIUM SOLUTION		17
METHACRYLIC ACID		17
METHACRYLIC ACID - ALKOXYPOLY (ALKYLENE OXIDE) METHACRYLATE COPOLYMER, SODIUM SALT AQUEOUS SOLUTION (45% OR LESS)		17
alpha-Methacrylic acid	METHACRYLIC ACID	17
Methacrylic acid, dodecyl ester	DODECYL METHACRYLATE	17
Methacrylic acid, lauryl ester	DODECYL METHACRYLATE	17
METHACRYLIC RESIN IN ETHYLENE DICHLORIDE		17
METHACRYLONITRILE		17
Methanal	FORMALDEHYDE SOLUTIONS (45% OR LESS)	17
Methanamide	FORMAMIDE	17
Methanamine	METHYLAMINE SOLUTIONS (42% OR LESS)	17
Methanecarboxylic acid	ACETIC ACID	17
Methanoic acid	FORMIC ACID (85% OR LESS ACID)	17
Methanol	METHYL ALCOHOL (*)	17
Methenamine	HEXAMETHYLENETETRAMINE SOLUTIONS	17
3-METHOXY-1-BUTANOL		17
3-Methoxybutan-1-ol	3-METHOXY-1-BUTANOL	17

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Index Name	Product Name	Chapte
3-METHOXYBUTYL ACETATE		17
2-Methoxyethanol (a)	ETHYLENE GLYCOL MONOALKYL ETHERS	17
2-(2-Methoxyethoxy)ethanol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
2-[2-(2-Methoxyethoxy)ethoxy]ethanol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
2-(2-Methoxyethoxy)ethyl acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
2-Methoxyethyl acetate	ETHYLENE GLYCOL METHYL ETHER ACETATE	17
2-Methoxy-2-methylbutane	TERT-AMYL METHYL ETHER	17
3-Methoxy-3-methylbutan-1-ol	3-METHYL-3-METHOXYBUTANOL	17
2-Methoxy-1-methylethyl acetate	PROPYLENE GLYCOL METHYL ETHER ACETATE	17
N-(2-METHOXY-1-METHYL ETHYL)-2-ETHYL-6-METHYL CHLOROACETANILIDE		17
2-methoxy-2-methylpropane	METHYL TERT-BUTYL ETHER	17
1-Methoxypropan-2-ol (a)	PROPYLENE GLYCOL MONOALKYL ETHER	17
1-Methoxy-2-propanol acetate	PROPYLENE GLYCOL METHYL ETHER ACETATE	17
1-(2-Methoxypropoxy)propan-2-ol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
3-[3-(3-Methoxypropoxy)propoxy]propan-1-ol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Methoxytriglycol (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL(C1-C6) ETHER	17
Methylacetaldehyde	PROPIONALDEHYDE	17
METHYL ACETATE		17
Methylacetic acid	PROPIONIC ACID	17
METHYL ACETOACETATE		17
Methyl acetylacetate	METHYL ACETOACETATE	17
peta-Methylacrolein	CROTONALDEHYDE	17
METHYL ACRYLATE		17
2-Methylacrylic acid	METHACRYLIC ACID	17
2-Methylacrylic acid, dodecyl ester	DODECYL METHACRYLATE	17
2-Methylacrylic acid, lauryl ester	DODECYL METHACRYLATE	17
METHYL ALCOHOL (*)		17
METHYLAMINE SOLUTIONS (42% OR LESS)		17
1-Methyl-2-aminobenzene	O-TOLUIDINE	17
2-Methyl-1-aminobenzene	O-TOLUIDINE	17
METHYLAMYL ACETATE		17
METHYLAMYL ALCOHOL		17
METHYL AMYL KETONE		17
Methyl n-amyl ketone	METHYL AMYL KETONE	17
2-Methylaniline	O-TOLUIDINE	17
N-METHYLANILINE		17
o-Methylaniline	O-TOLUIDINE	17
2-Methylbenzenamine	O-TOLUIDINE	17
o-Methylbenzenamine	O-TOLUIDINE	17
Methylbenzene	TOLUENE	17
Methylbenzol	TOLUENE	17

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Index Name	Product Name	Chapt
ALPHA-METHYLBENZYL ALCOHOL WITH ACETOPHE (15% OR LESS)	NONE	17
2-Methyl-1,3-butadiene	ISOPRENE	17
3-Methyl-1,3-butadiene	ISOPRENE	17
2-Methylbutanal	VALERALDEHYDE (ALL ISOMERS)	17
3-Methylbutanal	VALERALDEHYDE (ALL ISOMERS)	17
2-Methylbutane (a)	PENTANE (ALL ISOMERS)	17
Methyl butanoate	METHYL BUTYRATE	17
2-Methyl-2-butanol	TERT-AMYL ALCOHOL	17
2-Methylbutan-2-ol	TERT-AMYL ALCOHOL	17
2-Methyl-4-butanol	ISOAMYL ALCOHOL	17
3-Methyl-1-butanol	AMYL ALCOHOL, PRIMARY	17
3-Methylbutan-1-ol	AMYL ALCOHOL, PRIMARY	17
3-Methyl-1-butanol	ISOAMYL ALCOHOL	17
3-Methylbutan-1-ol	ISOAMYL ALCOHOL	17
3-Methylbutan-3-ol	TERT-AMYL ALCOHOL	17
3-Methylbut-1-ene (a)	PENTENE (ALL ISOMERS)	17
Methylbutenes (a)	PENTENE (ALL ISOMERS)	17
METHYLBUTENOL		17
1-Methylbutyl acetate (a)	AMYL ACETATE (ALL ISOMERS)	17
2-Methyl-2-butyl alcohol	TERT-AMYL ALCOHOL	17
3-Methyl-1-butyl alcohol	ISOAMYL ALCOHOL	17
3-Methyl-3-butyl alcohol	TERT-AMYL ALCOHOL	17
METHYL TERT-BUTYL ETHER		17
METHYL BUTYL KETONE		17
METHYLBUTYNOL		17
2-Methyl-3-butyn-2-ol	2-METHYL-2-HYDROXY-3-BUTYNE	17
2-Methylbut-3-yn-2-ol	2-METHYL-2-HYDROXY-3-BUTYNE	17
2-Methylbut-3-yn-2-ol	METHYLBUTYNOL	17
2-Methyl-3-butyn-2-ol	METHYLBUTYNOL	17
2-Methylbutyraldehyde	VALERALDEHYDE (ALL ISOMERS)	17
3-Methylbutyraldehyde	VALERALDEHYDE (ALL ISOMERS)	17
METHYL BUTYRATE		17
Methyl 'carbitol' acetate (a)	POLY(2-8)ALKYLENE GLYCOL MONOALKYL (C1-C6) ETHER ACETATE	17
Methyl 'cellosolve' acetate	ETHYLENE GLYCOL METHYL ETHER ACETATE	17
Methylchloroform	1,1,1-TRICHLOROETHANE	17
Methyl cyanide	ACETONITRILE	17
METHYLCYCLOHEXANE		17
1-Methyl-1,3-cyclopentadiene	METHYLCYCLOPENTADIENE DIMER	17
METHYLCYCLOPENTADIENE DIMER		17
METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL		17
METHYL DIETHANOLAMINE		17
4-Methyl-1,3-dioxolan-2-one	PROPYLENE CARBONATE	17
Methyl disulphide	DIMETHYL DISULPHIDE	17
Methylenebis(4-isocyanatobenzene)	DIPHENYLMETHANE DIISOCYANATE	17
Methylenebis(4-phenyl isocyanate)	DIPHENYLMETHANE DIISOCYANATE	17

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Index Name	Product Name	Chapte
Methylenebis(4-phenylene isocyanate)	DIPHENYLMETHANE DIISOCYANATE	17
Methylenebis(p-phenylene isocyanate)	DIPHENYLMETHANE DIISOCYANATE	17
4,4'-Methylenebis(4-phenyl isocyanate)	DIPHENYLMETHANE DIISOCYANATE	17
Methylene bromide	DIBROMOMETHANE	17
Methylene chloride	DICHLOROMETHANE	17
4,4'-Methylenedi(phenyl isocyanate)	DIPHENYLMETHANE DIISOCYANATE	17
Methylene dichloride	DICHLOROMETHANE	17
4,4'-Methylenediphenyl diisocyanate	DIPHENYLMETHANE DIISOCYANATE	17
Methylenedi-p-phenylene diisocyanate	DIPHENYLMETHANE DIISOCYANATE	17
2-Methylenepropionic acid	METHACRYLIC ACID	17
Methyl ethanoate	METHYL ACETATE	17
1-Methylethyl acetate	ISOPROPYL ACETATE	17
1-Methylethylamine	ISOPROPYLAMINE	17
2-METHYL-6-ETHYL ANILINE		17
Methylethylcarbinol	SEC-BUTYL ALCOHOL	18
Methylethylene glycol	PROPYLENE GLYCOL	18
Methylethylene oxide	PROPYLENE OXIDE	17
METHYL ETHYL KETONE		17
N-(1-Methylethyl)propan-2-amine	DIISOPROPYLAMINE	17
2-METHYL-5-ETHYL PYRIDINE		17
		17
N-METHYLGLUCAMINE SOLUTION (70% OR LESS)		17
	N-METHYLGLUCAMINE SOLUTION (70% OR	17
N-methyl-D-glucamine solution (70% or less)	LESS)	17
2-METHYLGLUTARONITRILE WITH 2-ETHYLSUCCINONITRILE (12% OR LESS)		17
Methyl glycol	PROPYLENE GLYCOL	18
5-Methylheptan-3-one	ETHYL AMYL KETONE	17
5-Methyl-3-heptanone	ETHYL AMYL KETONE	17
Methylhexylcarbinol	OCTANOL (ALL ISOMERS)	17
Methyl 2-hydroxybenzoate	METHYL SALICYLATE	17
Methyl o-hydroxybenzoate	METHYL SALICYLATE	17
2-METHYL-2-HYDROXY-3-BUTYNE		17
2-Methyl-2-hydroxy-3-butyne	METHYLBUTYNOL	17
2,2'-(Methylimino)diethanol	METHYL DIETHANOLAMINE	17
N-Methyl-2,2'-iminodiethanol	METHYL DIETHANOLAMINE	17
Methyl isoamyl ketone	METHYL AMYL KETONE	17
Methyl isobutenyl ketone	MESITYL OXIDE	17
Methylisobutylcarbinol	METHYLAMYL ALCOHOL	17
Methylisobutylcarbinol acetate		17
METHYL ISOBUTYL KETONE		17
	D -CYMENE	
p-Methylisopropyl benzene		17
2-Methyllactonitrile		17
methyl mercaptopropionaldehyde	3-(METHYLTHIO)PROPIONALDEHYDE	17
METHYL METHACRYLATE		17
Methyl methanoate	METHYL FORMATE	17
3-METHYL-3-METHOXYBUTANOL		17

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Index Name	Product Name	Chapte
7-Methyl-3-methylene-1,6-octadiene	MYRCENE	17
Methyl 2-methylprop-2-enoate	METHYL METHACRYLATE	17
METHYL NAPHTHALENE (MOLTEN)		17
alpha-Methylnaphthalene (molten) (a)	METHYL NAPHTHALENE (MOLTEN)	17
beta-Methylnaphthalene (molten) (a)	METHYL NAPHTHALENE (MOLTEN)	17
(o- and p-) Methylnitrobenzene	O- OR P-NITROTOLUENES	17
8-Methylnonan-1-ol	DECYL ALCOHOL (ALL ISOMERS)	17
Methylolpropane	N-BUTYL ALCOHOL	18
alpha-Methyl-omega-methoxypoly(ethylene oxide)	POLYETHYLENE GLYCOL DIMETHYL ETHER	17
alpha-Methyl-omega-methoxypoly(oxy-1,2-ethanediyl)	POLYETHYLENE GLYCOL DIMETHYL ETHER	17
alpha-Methyl-omega-methoxypoly(oxyethylene)	POLYETHYLENE GLYCOL DIMETHYL ETHER	17
Methyloxirane	PROPYLENE OXIDE	17
2-Methyl-2,4-pentanediol	HEXYLENE GLYCOL	17
2-Methylpentane-2,4-diol	HEXYLENE GLYCOL	17
4-Methylpentanol-2	METHYLAMYL ALCOHOL	17
4-Methylpentan-2-ol	METHYLAMYL ALCOHOL	17
4-Methyl-2-pentanol acetate	METHYLAMYL ACETATE	17
4-Methyl-2-pentanone	METHYL ISOBUTYL KETONE	17
4-Methylpentan-2-one	METHYL ISOBUTYL KETONE	17
2-Methylpentene (a)	HEXENE (ALL ISOMERS)	17
2-Methylpent-1-ene (a)	HEXENE (ALL ISOMERS)	17
2-Methyl-1-pentene (a)	HEXENE (ALL ISOMERS)	17
4-Methyl-1-pentene (a)	HEXENE (ALL ISOMERS)	17
4-Methyl-3-penten-2-one	MESITYL OXIDE	17
4-Methylpent-3-en-2-one	MESITYL OXIDE	17
4-Methyl-2-pentyl acetate	METHYLAMYL ACETATE	17
Methylpentyl acetates	METHYLAMYL ACETATE	17
Methyl tert-pentyl ether	TERT-AMYL METHYL ETHER	17
Methyl pentyl ketone	METHYL AMYL KETONE	17
2-Methyl-m-phenylenediamine (a)	TOLUENEDIAMINE	17
4-Methyl-m-phenylenediamine (a)	TOLUENEDIAMINE	17
Methylphenylene diisocyanate	TOLUENE DIISOCYANATE	17
4-methyl-1.3-phenylene diisocyanate	TOLUENE DIISOCYANATE	17
4-Methyl-m-phenylene diisocyanate	TOLUENE DIISOCYANATE	17
2-Methyl-2-phenylpropane (a)	BUTYLBENZENE (ALL ISOMERS)	17
2-Methylpropanal (a)	BUTYRALDEHYDE (ALL ISOMERS)	17
2-METHYL-1,3-PROPANEDIOL	. ,	17
2-Methylpropan-1-ol	ISOBUTYL ALCOHOL	17
2-Methyl-1-propanol	ISOBUTYL ALCOHOL	17
2-Methylpropan-2-ol	TERT-BUTYL ALCOHOL	17
2-Methyl-2-propanol	TERT-BUTYL ALCOHOL	17
2-Methylprop-2-enenitrile	METHACRYLONITRILE	17
2-Methylpropenoic acid		17
alpha-Methylpropenoic acid		17
		17
2-Methylprop-1-enyl methyl ketone	MESITYL OXIDE BUTYL ACRYLATE (ALL ISOMERS)	17
2-Methylpropyl acrylate (a)	ISOBUTYL ALCOHOL	
2-Methyl-1-propyl alcohol 2-Methyl-2-propyl alcohol	TERT-BUTYL ALCOHOL	17 17

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Index Name	Product Name	Chapte
Methylpropylcarbinol		17
2-Methylpropyl formate	ISOBUTYL FORMATE	17
METHYL PROPYL KETONE		17
2-METHYLPYRIDINE		17
3-METHYLPYRIDINE		17
4-METHYLPYRIDINE		17
alpha-Methylpyridine	2-METHYLPYRIDINE	17
1-Methylpyrrolidin-2-one	N-METHYL-2-PYRROLIDONE	17
1-Methyl-2-pyrrolidinone	N-METHYL-2-PYRROLIDONE	17
N-Methylpyrrolidinone	N-METHYL-2-PYRROLIDONE	17
1-Methyl-2-pyrrolidone	N-METHYL-2-PYRROLIDONE	17
N-METHYL-2-PYRROLIDONE		17
METHYL SALICYLATE		17
Methyl soyate	SOYBEAN OIL FATTY ACID METHYL ESTER	17
Methylstyrene (all isomers)	VINYLTOLUENE	17
		17
3-(METHYLTHIO)PROPIONALDEHYDE		17
2-Methyltrimethylene glycol	2-METHYL-1,3-PROPANEDIOL	17
Metolachlor	N-(2-METHOXY-1-METHYL ETHYL)-2-ETHYL- 6-METHYL CHLOROACETANILIDE	17
MICROSILICA SLURRY		18
Middle oil	CARBOLIC OIL	17
Milk acid	LACTIC ACID	17
Milk of magnesia	MAGNESIUM HYDROXIDE SLURRY	18
Mineral wax	HYDROCARBON WAX	17
Mixed aliphatic oxygenated hydrocarbons, primary aliphatic alcohols and aliphatic ethers: mol wt: >200 (a)	OXYGENATED ALIPHATIC HYDROCARBON MIXTURE	17
MOLASSES		18
MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX		17
Monochlorobenzene	CHLOROBENZENE	17
Monochlorobenzol	CHLOROBENZENE	17
Monoethanolamine	ETHANOLAMINE	17
Monoethylamine	ETHYLAMINE (*)	17
Monoethylamine solutions, 72% or less	ETHYLAMINE SOLUTIONS (72% OR LESS)	17
Monoisopropanolamine	ISOPROPANOLAMINE	17
Monoisopropylamine	ISOPROPYLAMINE	17
Monomethylamine solutions, 42% or less	METHYLAMINE SOLUTIONS (42% OR LESS)	17
Monopropylamine	N-PROPYLAMINE	17
Monopropylene glycol	PROPYLENE GLYCOL	18
MORPHOLINE		17
MOTOR FUEL ANTI-KNOCK COMPOUND (CONTAINING LEAD ALKYLS)		17
Muriatic acid	HYDROCHLORIC ACID (*)	17
MYRCENE		17
Naphtha, coal tar	COAL TAR NAPHTHA SOLVENT	17
NAPHTHALENE (MOLTEN)		17
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	Product Name	Chapte
NAPHTHALENESULPHONIC ACID-FORMALDEHYDE COPOLYMER, SODIUM SALT SOLUTION		17
Naphtha (petroleum), Light Steam-cracked Aromatics (a)	ALKYLBENZENE MIXTURES (CONTAINING AT LEAST 50% OF TOLUENE)	17
Naphtha safety solvent	WHITE SPIRIT, LOW (15-20%) AROMATIC	17
NEODECANOIC ACID		17
Neodecanoic acid, 2,3-epoxypropyl ester	GLYCIDYL ESTER OF C10 TRIALKYLACETIC ACID	17
Neodecanoic acid, glycidyl ester	GLYCIDYL ESTER OF C10 TRIALKYLACETIC ACID	17
Neodecanoic acid vinyl ester	VINYL NEODECANOATE	17
Neopentane (a)	PENTANE (ALL ISOMERS)	17
Neopentanoic acid	TRIMETHYLACETIC ACID	17
Neopentylene glycol	2,2-DIMETHYLPROPANE-1,3-DIOL (MOLTEN OR SOLUTION)	17
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POLY(5+)PROPYLENE		17
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RESOLUTION MEPC.318(74) (adopted on 17 May 2019) AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS

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CHEMICALS IN BULK (IBC CODE) (Amendments to Chapters 1, 15, 16, 17, 18, 19 and 21)

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TRIXYLYL PHOSPHATE		17
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	TURPENTINE	17
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Valerone	DIISOBUTYL KETONE	17
Vaseline (cosmetic)	PARAFFIN WAX, HIGHLY-REFINED	17
VEGETABLE ACID OILS (M)		17
VEGETABLE FATTY ACID DISTILLATES (M)		17
VEGETABLE OIL MIXTURES, CONTAINING LESS THAN 15 FREE FATTY ACID (M)	%	17
VEGETABLE PROTEIN SOLUTION (HYDROLYSED)		18
Vinegar acid	ACETIC ACID	17
Vinegar naphtha	ETHYL ACETATE	17
VINYL ACETATE		17
Vinylbenzene	STYRENE MONOMER	17
Vinylcarbinol	ALLYL ALCOHOL	17
Vinyl cyanide	ACRYLONITRILE	17
vinyl ethanoate		17
VINYL ETHYL ETHER		17
Vinylformic acid	ACRYLIC ACID	17
		17
		17
VINYLTOLUENE		17
Vinyltoluene (all isomers)	VINYLTOLUENE	17
Vinyl trichloride	1,1,2-TRICHLOROETHANE	17
Vitriol brown oil	SULPHURIC ACID	17
WATER		18
Water glass solutions	SODIUM SILICATE SOLUTION	17
White bole	KAOLIN SLURRY	18
White caustic solution	SODIUM HYDROXIDE SOLUTION (*)	17
WHITE SPIRIT, LOW (15-20%) AROMATIC		17
White tar	NAPHTHALENE (MOLTEN)	17
Wine (a)	ALCOHOLIC BEVERAGES, N.O.S.	18
Wintergreen oil	METHYL SALICYLATE	17
Wood alcohol	METHYL ALCOHOL (*)	17
WOOD LIGNIN WITH SODIUM ACETATE/OXALATE		17
Wood naphtha	METHYL ALCOHOL (*)	17
Wood spirit	METHYL ALCOHOL (*)	17
XYLENES		17
XYLENES/ETHYLBENZENE (10% OR MORE) MIXTURE		17
XYLENOL		17
Xylenol (all isomers)	XYLENOL	17
2,3-Xylenol (a)	XYLENOL	17
2,4-Xylenol (a)	XYLENOL	17
2,5-Xylenol (a)	XYLENOL	17
2,6-Xylenol (a)	XYLENOL	17

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Index Name	Product Name	Chapter
3,4-Xylenol (a)	XYLENOL	17
3,5-Xylenol (a)	XYLENOL	17
Xylols	XYLENES	17
ZINC ALKARYL DITHIOPHOSPHATE (C7-C16)		17
ZINC ALKENYL CARBOXAMIDE		17
ZINC ALKYL DITHIOPHOSPHATE (C3-C14)		17
Zinc bromide drilling brine	DRILLING BRINES (CONTAINING ZINC CHLORIDE)	17
z-Octadec-9-enamine	OLEYLAMINE	17
(Z)-Octadec-9-enoic acid	OLEIC ACID	17
Z-Octadec-9-enoic acid	OLEIC ACID	17
(Z)-Octadec-9-enylamine	OLEYLAMINE	17

"

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7 The complete text of chapter 21 is replaced by the following:

"Chapter 21

Criteria for assigning carriage requirements for products subject to the IBC Code

21.1 Introduction

21.1.1 The following criteria are used for the determination of pollution classification and assignment of appropriate carriage requirements for bulk liquid cargoes being assessed for entry into the IBC Code or lists 1, 3 or 4 of the MEPC.2/Circular.

21.1.2 In developing such criteria, every effort has been made to follow the criteria and cut-off points developed under the Globally Harmonized System (GHS).

21.1.3 Although the criteria are intended to be closely defined in order to establish a uniform approach, it must be emphasized that where human experience or other factors indicate the need for alternative arrangements, these shall always be taken into account. Where deviations from the criteria have been recognized, they shall be properly recorded with justifications.

21.2 Contents

- 21.2.1 This chapter contains the following:
 - .1 minimum safety and pollution criteria for products subject to chapter 17 of the IBC Code;
 - .2 criteria used to assign the minimum carriage requirements for products that meet the safety or pollution criteria to make them subject to chapter 17 of the IBC Code;
 - .3 criteria used for determining special requirements in chapter 15 of the IBC Code to be included in *column o* of chapter 17 of the IBC Code;
 - .4 criteria used for determining special requirements in chapter 16 of the IBC Code to be included in *column o* of chapter 17 of the IBC Code;
 - .5 definitions of properties used within this chapter;
 - .6 information on the use of the GESAMP Hazard Ratings; and
 - .7 information on the application of the SVC/LC₅₀ ratio method.

21.2.2 The information included in parentheses following the classification criteria throughout this chapter refers to the GESAMP Hazard Profile ratings set out in appendix I of MARPOL Annex II under the "Abbreviated legend to the revised GESAMP Hazard Evaluation procedure". The full listing of GESAMP Hazard Profile ratings for evaluated substances are published annually in the GESAMP Composite List as a PPR Circular. It should be noted that ratings in parentheses (based on estimation methods applied by GESAMP) are considered as equivalent to ratings without parentheses for the purpose of assigning carriage requirements.

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21.3 Minimum safety and pollution criteria for products subject to chapter 17 of the IBC Code

21.3.1 Products are deemed to be hazardous and subject to chapter 17 of the IBC Code if they meet one or more of the following criteria:

- .1 inhalation $LC_{50}/ATE \le 20 \text{ mg/L/4h}$ (see paragraph 21.7.1.3) (C3 = 1, 2, 3 or 4);
- .2 dermal $LD_{50}/ATE \le 2000 \text{ mg/kg}$ (see paragraph 21.7.1.2) (C2 = 1, 2, 3, or 4);
- .3 oral $LD_{50}/ATE \le 2000 \text{ mg/kg}$ (see paragraph 21.7.1.1) (C1 = 1, 2, 3, or 4);
- .4 toxic to mammals by prolonged exposure (see paragraph 21.7.2) (D3 = C, M, R, N, T, or I);
- .5 cause skin sensitization (see paragraph 21.7.3) (D3 = Ss);
- .6 cause respiratory sensitization (see paragraph 21.7.4) (D3 = Sr);
- .7 corrosive to skin (see paragraph 21.7.5) (D1 = 3, 3A, 3B, or 3C);
- .8 with a Water Reactive Index (WRI) of \geq 1 (see paragraph 21.7.6);
- .9 require inertion, inhibition, stabilization, temperature control or tank environmental control in order to prevent a hazardous reaction (see definitions in paragraph 21.7.10);
- .10 flashpoint < 23° C; and have an explosive/flammability range (expressed as a percentage by volume in air) of $\geq 20\%$;
- .11 auto-ignition temperature of $\leq 200^{\circ}$ C; and
- .12 classified as pollution category X or Y or meeting the criteria for rules 11 to 13 in table 2 in paragraph 21.4.5.2.

21.4 Criteria used to assign the minimum carriage requirements for products that meet the minimum safety or pollution criteria to make them subject to chapter 17 of the IBC Code

21.4.1 *Column a* – Product name

21.4.1.1 A standardized chemical name, preferably assigned on the basis of the Chemical Abstracts Service (CAS) or the International Union of Pure and Applied Chemistry (IUPAC) system, shall be used as far as possible. However, where this is unnecessarily complex, then a technically correct and unambiguous alternative name may be used.

21.4.2 Column b – Deleted

21.4.3 *Column c* – Pollution category

21.4.3.1 *Column c* identifies the pollution category assigned to each product in accordance with MARPOL Annex II, based on table 1 below (see MARPOL Annex II, appendix I).

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Rule	A1 Bio- accumulation	A2 Bio- degradation	B1 Acute toxicity	B2 Chronic toxicity	D3 Long-term health effects	E2 Effects on marine wildlife and on benthic habitats	Cat
1			≥ 5				
2	≥ 4		4				
3		NR	4				X
4	≥ 4	NR			CMRTNI		
5			4				
6			3				
7			2				
8	≥ 4	NR		Not 0			
9				≥ 1			Y
10						Fp, F or S If not Inorganic	
11					CMRTNI	-	
12	Any product	not meeting th	e criteria c	of rules 1 to	11 and 13	1	Z
13	All products column D3; r	identified as: : not Fp, F or S (i is of the GESA	≤ 2 in col f not orga	umn A1; F nic) in colu	R in column		05

Table 1 – Guidelines for the categorization of Noxious Liquid Substances

21.4.4 *Column d* – Hazards

21.4.4.1 An "S" is assigned to *column d* if any of the safety criteria described in paragraphs 21.3.1.1 to 21.3.1.11 are met.

A "P" is assigned to *column d* if the product meets the criteria for assigning Ship Type 1 to 3 as defined by rules 1 to 14 in the table 2.

21.4.5 *Column* e – Ship Type

21.4.5.1 Assignment of Ship Types is carried out from both a pollution and safety perspective. The basic criteria for assigning Ship Types from a pollution perspective is carried out based on the GESAMP Hazard Profile, shown in table 2. An explanation of the details in the columns is provided in appendix I of MARPOL Annex II.

21.4.5.2 The following criteria are used to assign the Ship Type:

Ship Type 1:

Inhalation LC₅₀/ATE \leq 0.5 mg/L/4h (C3 = 4) and SVC/LC₅₀ \geq 20; and/or Dermal LD₅₀/ATE \leq 50 mg/kg (C2 = 4); and/or WRI = 3; and/or Auto-ignition temperature \leq 65°C; and/or Explosive range \geq 50% v/v in air and the flashpoint < 23°C; and/or Rules 1 or 2 of the table 2 shown in 21.4.5.2 (below). Ship Type 2:

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Inhalation LC₅₀/ATE \leq 0.5 mg/L/4h (C3 = 4) and SVC/LC₅₀ < 20; or Inhalation LC₅₀/ATE > 0.5 mg/L/4h - \leq 2mg/L/4h (C3 = 3) and SVC/LC₅₀ \geq 2 (see note); and/or Dermal LD₅₀/ATE > 50 mg/kg - \leq 200 mg/kg (C2 = 3); and/or WRI = 2; and/or Auto-ignition temperature \leq 200°C; and/or Explosive range \geq 40% v/v in air and the flashpoint < 23°C; and/or Any product meeting the criteria of rules 3 to 10 in table 2.

Note: Products with a density >1025 kg/m³ (sinkers) or a water solubility of >50% (dissolvers) that are assigned to Ship Type 2 based on the inhalation toxicity criteria, may be re-assigned to Ship Type 3.

Ship Type 3:

Any of the minimum safety or pollution criteria for bulk liquid cargoes subject to chapter 17 of the IBC Code not meeting the requirements for Ship Types 1 or 2 and not meeting rule 15 of table 2 shown in 21.4.5.2 (below).

Rule	A1	A2	B1	B2	D3	E2	Ship Type
1			≥ 5				4
2	≥ 4	NR	4		CMRTNI		- 1
3	≥ 4	NR			CMRTNI		
4			4				
5	≥ 4		3				
6		NR	3				2
7				≥ 1			2
8						Fp	
9					CMRTNI	F	
10			≥2			S	
11	≥ 4						
12		NR					3
13			≥ 1				3
14		All ot	her cate	gory Y Sub	stances		
15				gory Z Sub Substances'			NA

Table 2 – Assignment of Ship Types based on the GESAMP Hazard Profile

21.4.6 Column f – Tank type

21.4.6.1 The tank type is assigned according to the following criteria:

Tank type 1G: Inhalation LC₅₀/ATE ≤ 0.5 mg/L/4h (C3 = 4) and SVC/LC₅₀ ≥ 1000; and/or Dermal LD₅₀/ATE ≤ 50 mg/kg (C2 = 4); and/or; WRI=3; and/or Auto-ignition temperature ≤ 65°C; and/or Explosive range ≥ 40% v/v in air and the flashpoint < 23°C. Based on expert judgement, tank type 1G may be required for specific products (e.g. for molten sulphur, hydrochloric acid) - 120 -

Tank type 2G: Any of the minimum safety or pollution criteria for bulk liquid cargoes subject to chapter 17 or the IBC Code not meeting the requirements for tank type 1G.

21.4.7 *Column* g – Tank vents

21.4.7.1 The tank venting arrangements are assigned according to the following criteria:

Controlled:	Inhalation LC ₅₀ /ATE \leq 10 mg/L/4h (C3 = 2, 3 or 4), unless in accordance with 21.7.12; and/or Toxic to mammals by prolonged exposure (D3 = C, M, R, T, N, or I); and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Special carriage control needed; and/or Flashpoint \leq 60°C; and Corrosive to skin (\leq 4h exposure). (D1 = 3A, 3B, or 3C).
Open:	Any of the minimum safety or pollution criteria for bulk liquid cargoes subject to chapter 17 or the IBC Code not meeting the requirements for controlled

21.4.8 Column h – Tank environmental control

tank vents.

21.4.8.1 The tank environmental control conditions are assigned according to the following criteria:

Inert:	Auto-ignition temperature ≤ 200°C; and/or
	Reacts with air to cause a hazard; and/or
	Explosive range \geq 40% and the flashpoint < 23°C.
Dry:	WRI > 1
Pad:	Only applies to specific products identified on a case by case basis.
Vent:	Only applies to specific products identified on a case by case basis.
No:	Where the above criteria do not apply (inerting requirements may be required under SOLAS).

21.4.9 Column i – Electrical equipment

21.4.9.1 If the flashpoint of the product is $\leq 60^{\circ}$ C or the product is heated to within 15°C of its flashpoint then the electrical equipment required are assigned according to the following criteria, otherwise "–" is assigned in column *i*' and *i*":

.1 Column i' – Temperature class:

- T1 Auto-ignition temperature \geq 450°C
- T2 Auto-ignition temperature \geq 300°C but < 450°C
- T3 Auto-ignition temperature $\geq 200^{\circ}$ C but $< 300^{\circ}$ C
- T4 Auto-ignition temperature ≥ 135°C but < 200°C
- T5 Auto-ignition temperature $\geq 100^{\circ}$ C but < 135°C
- T6 Auto-ignition temperature $\geq 85^{\circ}$ C but < 100°C

.2 **Column i'' – Apparatus group:**

Apparatus group	MESG at 20°C (mm)	MIC ratio product/methane
IIA	> 0.90	> 0.80
IIB	> 0.50 to ≤ 0.90	> 0.45 to ≤ 0.80
IIC	≤ 0.50	≤ 0.45

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- .1 The tests shall be carried out in accordance with the procedures described in IEC 60079-1-1:2002 and IEC 79-3.
- .2 For gases and vapours it is sufficient to make only one determination of either the Maximum Experimental Safe Gap (MESG) or the Minimum Igniting Current (MIC) provided that:

for Group IIA: for Group IIB:	the MESG > 0.90 mm or the MIC ratio > 0.80 the MESG is > 0.50 mm and \leq 0.90 mm; or the
	MIC ratio is > 0.50 and ≤ 0.80
for Group IIC:	the MESG is ≤ 0.50 mm or the MIC ratio is ≤ 0.45

.3 It is necessary to determine both the MESG and the MIC ratio when:

- .1 The MIC ratio determination only has been made, and the ratio is between 0.80 and 0.90, when an MESG determination will be required;
- .2 The MIC ratio determination only has been made, and the ratio is between 0.45 and 0.50, when an MESG determination will be required; or
- .3 The MESG only has been found, and is between 0.50 mm and 0.55 mm, when an MIC ratio determination will be required.

.3 Column i"' Flashpoint:

> 60°C	Yes
≤ 60°C	No
Non-flammable	NF

21.4.10 Column j – Gauging

21.4.10.1 The gauging equipment is assigned according to the following criteria:

Closed:	Inhalation LC ₅₀ /ATE \leq 2 mg/L/4h (C3 = 3 or 4), unless in accordance with 21.7.12; and/or
	Dermal LD ₅₀ /ATE \leq 1000 mg/kg (C2 = 2, 3 or 4); and/or Toxic to mammals by prolonged exposure (D3 = C, M, R, T, N, or I); and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Severely corrosive to skin (\leq 3 min exposure) (D1= 3C).
Restricted:	Inhalation LC ₅₀ /ATE >2 - \leq 10 mg/L/4h (C3 = 2), unless in accordance with 21.7.12; and/or Special carriage control indicates inerting required; and/or
	Highly corrosive to skin (> 3 min - ≤1h exposure) (D1 = 3B); and/or Flashpoint ≤ 60°C.
Open:	Any of the minimum safety or pollution criteria for bulk liquid cargoes subject to chapter 17 or the IBC Code not meeting the requirements for closed or restricted gauging.

21.4.11 Column k – Vapour detection

21.4.11.1 The vapour detection equipment is assigned according to the following criteria:

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Toxic (T):	Inhalation $LC_{50}/ATE \le 10$ mg/L/4h (C3 = 2, 3, or 4), unless in accordance with 21.7.12, and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Toxic to mammals by prolonged exposure (D3 = C, M, R, T, N, or I)
Floremobile (F)	Flooppoint < 6000

Flammable (F): Flashpoint $\leq 60^{\circ}$ C

No (No): Where the above criteria do not apply

21.4.12 Column I – Fire protection equipment

21.4.12.1 The appropriate fire-fighting media are defined as being appropriate according to the following criteria related to the properties of the product:

Solubility > 10% (> 100000 mg/L)	А	Alcohol-resistant foam
Solubility $\leq 10\%$ (≤ 100000 mg/L)	А	Alcohol-resistant foam; and/or
	В	Regular foam
WRI = 0	С	Water spray (generally used as a coolant and can be used with A and/or B providing that the WRI = 0)
WRI ≥1	D	Dry chemical
	No	No requirements under this Code. This applies where a product as identified as NF in column i''' (see paragraph 21.4.9.1.3).

Note: all appropriate media shall be listed.

21.4.13 Column m – Deleted

21.4.14 Column n – Emergency equipment

21.4.14.1 The requirement to have personnel emergency equipment on board is identified by "Yes" in *column n* according to the following criteria:

Inhalation $LC_{50}/ATE \le 2 \text{ mg/L/4h}$ (C3 = 3 or 4); unless in accordance with 21.7.12 and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Severely corrosive to skin (≤ 3 min exposure) (D1 = 3C); and/or WRI = 2

No: indicates that the above criteria do not apply.

21.5 *Column o – Criteria for special requirements in chapter 15*

21.5.1 The assignment of special requirements in *column o* shall normally follow clear criteria based on the data supplied in the reporting form. Where it is considered appropriate to

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deviate from such criteria, this shall be clearly documented in such a way that it can easily be retrieved on demand.

21.5.2 The criteria for making reference to the special requirements identified in chapters 15 and 16 are defined below with comments where relevant.

21.5.3 Paragraphs 15.2 to 15.10 and 15.20

21.5.3.1 Paragraphs 15.2 to 15.10 and 15.20 identify specific products by name with special carriage requirements that cannot be easily accommodated in any other way.

21.5.4 Paragraph 15.11 – Acids

21.5.4.1 Paragraph 15.11 applies to all acids unless they:

- .1 are organic acids when only paragraphs 15.11.2 to 15.11.4 and paragraphs 15.11.6 to 15.11.8 apply; or
- .2 do not evolve hydrogen when paragraph 15.11.5 need not apply.

21.5.5 Paragraph 15.12 – Toxic products

21.5.5.1 All of paragraph 15.12 is added to *column o* according to the following criteria:

Inhalation $LC_{50}/ATE \le 2 \text{ mg/L/4h}$ (C3 = 3 or 4), unless in accordance with 21.7.12; and/or

the product is a respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or the product is toxic to mammals by prolonged exposure (D3 = C, M, R, T, N, or I).

21.5.5.2 Paragraphs 15.12.3 and 15.12.4 are added to *column o* according to the following criterion:

Inhalation $LC_{50}/ATE > 2 - \le 10 \text{ mg/L/4h}$ (C3 = 2), unless in accordance with 21.7.12.

21.5.5.3 Paragraph 15.12.3.2 is added to *column o* according to the following criteria:

Dermal LD₅₀/ATE \leq 1000 mg/kg (C2 = 2, 3, or 4); and/or Oral LD₅₀/ATE \leq 300 mg/kg (C1 = 2, 3, or 4).

21.5.6 Paragraph 15.13 – Cargoes protected by additives

21.5.6.1 The requirement to assign paragraph 15.13 to *column o* is based on the information related to the product's tendency to polymerize, decompose, oxidize or undergo other chemical changes which may cause a hazard under normal carriage conditions, but which would be prevented by the addition of appropriate additives.

21.5.7 Paragraph 15.14 – Cargoes with a vapour pressure greater than atmospheric at 37.8°C

21.5.7.1 The requirement to assign paragraph 15.14 to *column o* is based on the following criterion:

Boiling point \leq 37.8°C

21.5.8 Paragraph 15.16 – Cargo contamination

21.5.8.1 Paragraph 15.16.1 is deleted.

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21.5.8.2 Paragraph 15.16.2 is added to *column* o according to the following criterion:

WRI>1

21.5.9 Paragraph 15.17 – Increased ventilation requirements

21.5.9.1 Paragraph 15.17 shall be added to *column* o according to the following criteria:

Inhalation $LC_{50}/ATE > 0.5 - \le 2 \text{ mg/L/4h}$ (C3 = 3), unless in accordance with 21.7.12; and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Toxic to mammals by prolonged exposure (D3 = C, M, R, T, N, or I); and/or Highly to severely corrosive to skin (\le 1h exposure time) (D1 = 3B or 3C).

21.5.10 Paragraph 15.18 – Special cargo pump-room requirements

21.5.10.1 Paragraph 15.18 shall be added to *column* o according to the following criterion: Inhalation $LC_{50}/ATE \le 0.5 \text{ mg/L/4h}$ (C3 = 4), unless in accordance with 21.7.12

21.5.11 Paragraph 15.19 – Overflow control

21.5.11.1 Paragraph 15.19 shall be added to *column o* according to the following criteria:

Inhalation LC₅₀/ATE $\leq 2 \text{ mg/L/4h}$ (C3 = 3 or 4), unless in accordance with 21.7.12; and/or Dermal LD₅₀/ATE $\leq 1000 \text{ mg/kg}$ (C2 = 2, 3, or 4); and/or Oral LD₅₀/ATE $\leq 300 \text{ mg/kg}$ (C1 = 2, 3, or 4); and/or Respiratory sensitizer (D3 = Sr, see also paragraph 21.7.4); and/or Severely corrosive to skin ($\leq 3 \text{ min exposure}$) (D1 = 3C); and/or Auto-ignition temperature $\leq 200^{\circ}$ C; and/or Explosive range $\geq 40\% \text{ v/v}$ in air and flashpoint $< 23^{\circ}$ C; and/or Classified as Ship Type 1 on pollution grounds.

21.5.11.2 Only paragraph 15.19.6 shall apply if the product has any of the following properties:

Inhalation LC₅₀/ATE > 2 mg/L/4h - ≤ 10 mg/L/4h (C3 = 2), unless in accordance with 21.7.12; and/or Dermal LD₅₀/ATE > 1000 mg/kg - ≤ 2000 mg/kg (C2 = 1); and/or Oral LD₅₀/ATE > 300 mg/kg - ≤ 2000 mg/kg (C1 = 1); and/or Skin sensitizer (D3=Ss); and/or Highly corrosive to skin (> 3 min - \leq 1h exposure) (D1 = 3B); and/or Flashpoint $\leq 60^{\circ}$ C; and/or Classified as Ship Type 2 on pollution grounds; and/or Pollution category X or Y.

21.5.12 Paragraph 15.21 – Temperature sensors

21.5.12.1 Paragraph 15.21 is added to *column o* according to the heat sensitivity of the product. This requirement is related to pumps in cargo pump-rooms only.

21.6 Column o – Criteria for special requirements in chapter 16

21.6.1 Paragraphs 16.1 to 16.2.5 and 16.3 to 16.5

21.6.1.1 These apply to all cargoes and so are not referenced specifically in *column o*.

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21.6.2 Paragraph 16.2.6

21.6.2.1 Paragraph 16.2.6 is added to *column* o for products, which meet the following criteria: Pollution Category X or Y and viscosity \geq 50 mPa·s at 20°C.

21.6.3 Paragraph 16.2.9

21.6.3.1 Paragraph 16.2.9 is added to *column* o for products, which meet the following criterion: Melting point $\ge 0^{\circ}$ C.

21.6.4 Paragraph 16.6 – Cargo not to be exposed to excessive heat

21.6.4.1 Paragraphs 16.6.2 to 16.6.4 are added to *column* o for products, which are identified as requiring temperature control during carriage.

21.6.5 Paragraph 16.2.7 – Persistent floaters

Paragraph 16.2.7 is added to *column* o for products which meet the following criteria: Pollution Category Y that are persistent floaters (E2 = Fp) with a viscosity greater than or equal to 50 mPa·s at 20°C and/or with a melting point greater than or equal to 0°C.

21.7 Definitions

21.7.1 Acute mammalian toxicity

 LC_{50} is the concentration in air, LD_{50} is the amount (dose) of test substance, which causes mortality to 50% of a test species. ATE refers to a dose (concentration) range or extrapolated dose (concentration) leading to lethal effects in mammals, equivalent to an LC_{50} or LD_{50} .

21.7.1.1 Acutely toxic if swallowed	

Oral toxicity (LD ₅₀ /ATE)		GESAMP Hazard Profile Rating
Hazard Level	mg/kg	C1
High	≤ 5	4
Moderately High	> 5 - ≤ 50	3
Moderate	> 50 - ≤ 300	2
Slight	> 300 - ≤ 2000	1
Negligible	> 2000	0

21.7.1.2 Acutely toxic in contact with skin

Dermal toxicity (LD ₅₀ /ATE)		GESAMP Hazard Profile Rating
Hazard Level	mg/kg	C2
High	≤ 50	4
Moderately high	> 50 - ≤ 200	3
Moderate	> 200 - ≤ 1000	2
Slight	> 1000 - ≤ 2000	1
Negligible	> 2000	0

21.7.1.3 Acutely toxic by inhalation

All inhalation toxicity data are assumed to be for vapours and not mists or sprays, unless otherwise indicated.

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Inhalation toxic	city (LC ₅₀ /ATE)	GESAMP Hazard Profile Rating
Hazard level	mg/L/4h	C3
High	≤ 0.5	4
Moderately high	> 0.5 - ≤ 2	3
Moderate	> 2 - ≤ 10	2
Slight	> 10 - ≤ 20	1
Negligible	> 20	0

21.7.2 Toxic to mammals by prolonged exposure

21.7.2.1 A product is classified as *toxic to mammals by prolonged exposure* if it meets any of the following criteria: it is known to be, or suspected of being carcinogenic, mutagenic, reprotoxic, neurotoxic, immunotoxic or exposure below the lethal dose is known to cause Specific Target Organ Toxicity.

21.7.2.2 Such effects may be identified from the GESAMP Hazard Profile of the product (D3 = C, M, R, T, N, or I) or other recognized sources of such information.

21.7.3 Skin sensitization

21.7.3.1 A product is classified as a *skin sensitizer:*

- .1 if there is evidence in humans that the substance can induce sensitization by skin contact in a substantial number of persons; or
- .2 where there are positive results from an appropriate test.

21.7.3.2 Such effects are identified in the GESAMP Hazard Profile for the product (D3 = Ss).

21.7.4 Respiratory sensitization

21.7.4.1 A product is classified as a respiratory sensitizer:

- .1 if there is evidence in humans that the substance can induce specific respiratory hypersensitivity; and/or
- .2 where there are positive results from an appropriate test; and/or
- .3 where the product does not have a GESAMP Hazard Profile and is identified as a skin sensitizer and there is no evidence to show that it is not a respiratory sensitizer.

21.7.4.2 Such effects are identified in the GESAMP Hazard Profile for the product (D3 = Sr) or other recognized sources of such information, if no profile exists.

21.7.5 Corrosive to skin

Hazard Level	Exposure time to cause full thickness necrosis of skin	GESAMP Hazard Profile Rating D1
Severely corrosive to skin	≤ 3 min	3C
Highly corrosive to skin	> 3 min - ≤ 1h	3B
Moderately corrosive to skin	> 1h - ≤ 4h	3A

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Note: A rating of 3 or (3) in the D1 column of the GESAMP Hazard Profile without any additional letter notation (A, B or C), means that the severity of corrosivity has not been established. For such cases, a rating of 3 or (3) is understood to be equivalent to a rating of 3B for the purpose of assigning carriage requirements.

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21.7.6 Water reactive substances

21.7.6.1 These are classified as follows:

Water Reactive Index (WRI)	Definition
3	Any chemical which is extremely reactive with water and produces large quantities of flammable, toxic or corrosive gas or aerosol
2	Any chemical which, in contact with water, may produce a toxic, flammable or corrosive gas or aerosol
1	Any chemical which, in contact with water, may generate heat or produce a non-toxic, non-flammable or non-corrosive gas
0	Any chemical which, in contact with water, would not undergo a reaction to justify a value of 1, 2 or 3

21.7.7 Air reactive substances

21.7.7.1 Air reactive substances are products that react with air to cause a potentially hazardous situation, e.g. the formation of peroxides that may cause an explosive reaction.

21.7.8 Electrical apparatus – Temperature class

(for products which either have a flashpoint of $\leq 60^{\circ}$ C or are heated to within 15°C of their flashpoint)

21.7.8.1 The temperature class is defined by the International Electrotechnical Commission (IEC) as:

"The highest temperature attained under practical conditions of operation within the rating of the apparatus (and recognized overloads, if any, associated therewith) by any part of any surface, the exposure of which to an explosive atmosphere may involve a risk."

21.7.8.2 The temperature class of the electrical apparatus is assigned by selecting the Maximum Surface Temperature which is closest to, but less than, the product's auto-ignition temperature (see 21.4.9.1.1).

21.7.9 Electrical apparatus – Apparatus group

(for products with a flashpoint of $\leq 60^{\circ}$ C)

21.7.9.1 This refers to intrinsically safe and associated electrical apparatus for explosive gas atmospheres which the IEC divide into the following groups:

Group I: for mines susceptible to firedamp (not used by IMO); and

Group II: for applications in other industries – further subdivided according to its Maximum Experimental Safe Gap (MESG) and/or the Minimum Igniting Current (MIC) of the gas/vapour into groups IIA, IIB and IIC.

21.7.9.2 This property cannot be determined from other data associated with the product; it has to be either measured or assigned by assimilation with related products in a homologous series.

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21.7.10 Special carriage control conditions

21.7.10.1 Special carriage control conditions refer to specific measures that need to be taken in order to prevent a hazardous reaction. They include:

- .1 *Inhibition*: the addition of a compound (usually organic) that retards or stops an undesired chemical reaction such as corrosion, oxidation or polymerization;
- .2 Stabilization: the addition of a substance (stabilizer) that tends to keep a compound, mixture or solution from changing its form or chemical nature. Such stabilizers may retard a reaction rate, preserve a chemical equilibrium, act as antioxidants, keep pigments and other components in emulsion form or prevent the particles in colloidal suspension from precipitating;
- .3 *Inertion*: the addition of a gas (usually nitrogen) in the ullage space of a tank that prevents the formation of a flammable cargo/air mixture;
- .4 *Temperature control:* the maintenance of a specific temperature range for the cargo in order to prevent a hazardous reaction or to keep the viscosity low enough to allow the product to be pumped; and
- .5 *Padding and venting:* only applies to specific products identified on a case by case basis.

21.7.11 Flammable cargoes

21.7.11.1	A cargo is define	d as flammable a	according to the	following criteria:

IBC Code descriptor	Flashpoint (degrees Centigrade)	
Highly flammable	< 23	
Flammable	≤ 60 but ≥ 23	

21.7.11.2 It should be noted that flashpoints of mixtures and aqueous solutions need to be measured unless all of the components are non-flammable.

21.7.11.3 It should be noted that the carriage of bulk liquid cargoes that have a flashpoint of \leq 60°C are subject to other SOLAS regulations.

21.7.12 Application of the SVC/LC₅₀ ratio method

21.7.12.1 If the vapour pressure and the molecular weight of a substance are known, an estimate of the maximum vapour concentration in a closed compartment (e.g. a tank) can be calculated. This is called the Saturated Vapour Concentration (SVC).

21.7.12.2 The hazard quotient SVC/LC₅₀ is a substance specific value for the velocity of a vapour for achieving a hazardous concentration when emerging from a liquid source (e.g. leak, spillage or tank ventilation), and can be used in the assignment of specific carriage requirements related to inhalation toxicity.

21.7.12.3 If a solid substance is transported in an aqueous solution, the vapour pressure of this solid rather than that of water may be used in the calculation of the SVC/LC_{50} ratio.

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21.7.12.4 Application of the SVC/LC₅₀ ratio for assigning Ship Type and Tank type

21.7.12.4.1 For the assignment of Ship Type and tank type, as set out in paragraph 21.4.5 and 21.4.6, the application of the SVC/LC₅₀ ratio method is optional. Should this method be used, the vapour pressure at 20°C shall be used when calculating the SVC/LC₅₀ ratio.

21.7.12.4.2 The SVC mg/L of a substance should be calculated as follows:

$$SVC(mg/L) = \left(\frac{Vapour \ pressure @ 20^{\circ} \ C(Pa)}{101300 \ (Pa)} \ x \ 10^{\circ}\right) x \frac{M_{w}\left(\frac{g}{mol}\right)}{24(L/mol)x \ 1000}$$

where M_W is the molecular weight of the substance.

21.7.12.4.3 The SVC/LC₅₀ ratio should be calculated as follows:

$$SVC/LC_{50} = \frac{SVC(mg/L)}{LC_{50}mg/L/4h}$$

21.7.12.5 Application of the SVC/LC₅₀ ratio for assigning carriage requirements

21.7.12.5.1 For the carriage requirements listed in 21.7.12.5.5, the application of the SVC/LC₅₀ ratio method is optional. If the SVC/LC₅₀ ratio method is used in the assignment of these carriage requirements, the vapour pressure at 40°C shall be used when calculating the SVC/LC₅₀ ratio. If the carriage temperature is higher than 40°C, then the SVC/LC₅₀ ratio should be calculated at that temperature.

21.7.12.5.2 The SVC (mg/l) of a substance should be calculated as follows:

$$SVC(mg/L) = \left(\frac{Vapour \ pressure@.40^{\circ} \ C(Pa)}{101300(Pa)} \ x \ 10^{\circ}\right) x \ \frac{M_{w}\left(\frac{g}{mol}\right)}{26 \ (L/mol)x \ 1000}$$

where M_W is the molecular weight of the substance.

21.7.12.5.3 The SVC/LC₅₀ ratio should be calculated as follows:

$$SVC/LC_{50} = \frac{SVC(mg/L)}{LC_{50}mg/L/4h}$$

21.7.12.5.4 The SVC (mg/L) formula described in 21.7.12.5.2 is standardized for calculations at 40°C. When using the vapour pressure at higher temperatures in the calculations, the formula must be amended accordingly.

21.7.12.5.5 For the following carriage requirements, the SVC/LC₅₀ ratio method, calculated at 40°C or higher, may be used as an alternative to the acute inhalation toxicity criteria given in paragraphs 21.4 and 21.5:

.1 Column g – Tank vents

Assignment of controlled venting is not required based on the inhalation hazard only, if:

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Inhalation $LC_{50}/ATE \le 10 \text{ mg/L/4h}$ (C3 = 2, 3, or 4) and $SVC/LC_{50} < 0.2$

.2 Column j – Gauging

Closed gauging is not required based on the inhalation hazard only, if:

Inhalation $LC_{50}/ATE \le 2$ mg/L/4h (C3 = 3 or 4) and SVC/LC₅₀ < 0.2 but restricted gauging is required.

Restricted gauging is not required based on the inhalation hazard only, if:

Inhalation $LC_{50}/ATE > 2 - \le 10 \text{ mg/L/4h}$ (C3 = 2) and $SVC/LC_{50} < 0.2$

.3 Column k – Vapour detection

Assignment of toxic vapour detection is not required based on the inhalation hazard only, if:

Inhalation $LC_{50}/ATE \le 10 \text{ mg/L/4h}$ (C3 = 2, 3, or 4) and $SVC/LC_{50} < 0.2$

.4 Column n – Emergency Equipment

Inhalation $LC_{50}/ATE \le 2 \text{ mg/L}/4h$ (C3 = 3 or 4) and $SVC/LC_{50} < 0.2$

.5 Column o – Special requirements in chapter 15

15.12.1 and 15.12.2 are not required based on the inhalation hazard only, if:

Inhalation $LC_{50}/ATE \le 2 \text{ mg/L/4h}$ (C3 = 3 or 4) and $SVC/LC_{50} < 0.2$

15.12.3 and 15.12.4 are not required based on the inhalation hazard only, if:

Inhalation LC₅₀/ATE >2 - \leq 10 mg/L/4h (C3 = 2) and SVC/LC₅₀ < 0.2

15.17 is not required based on the inhalation hazard only, if:

Inhalation $LC_{50}/ATE \le 0.5 \text{ mg/L/4h}$ (C3 = 4) and $SVC/LC_{50} < 0.2$

15.18 is not required based on the inhalation hazard only if:

Inhalation $LC_{50}/ATE \le 0.5$ mg/L/4h (C3 = 4) and SVC/LC₅₀ < 0.2

15.19 is not required based on the inhalation hazard only, if:

Inhalation LC₅₀/ATE \leq 2 mg/L/4h (C3 = 3 or 4) and SVC/LC₅₀ < 0.2, but 15.19.6 applies

15.19.6 is not required based on the inhalation hazard only, if:

Inhalation LC $_{50}/\text{ATE}$ > 2 - ≤ 10 mg/L/4h (C3 = 2) and SVC/LC $_{50}$ < 0.2"