

Subject

Introduction of the outcomes of MEPC 52

ClassNK

Technical Information

No. TEC-0608

Date 22 November 2004

To whom it may concern

This is a summary of the decisions taken at the fifty-second session of the Marine Environment Protection Committee (MEPC 52) held from 11 to 15 October 2004.

1. Adoption of Mandatory Instruments

The revised MARPOL 73/78 Annex I, MARPOL 73/78 Annex II and IBC Code were adopted at this session.

(1) MARPOL 73/78 - Annex I (See Attachment 1)

The revised MARPOL Annex I for the prevention of pollution by oil from ships was adopted and is expected to enter into force on 1 January 2007.

As a result of various amendments to MARPOL Annex I since its entry into force in 1983, the regulations become quite complicated for users. For the purpose of making them user-friendly, MARPOL Annex I was re-constructed. For your reference, a table of contents of revised text is attached. In addition, the revised MARPOL Annex I contains the following new requirements approved at previous sessions.

(i) Oman area (Reg. 1)

The Oman area of the Arabian Sea is designated as a Special Area under MARPOL Annex I.

(ii) Pump-room bottom protection (Reg. 22)

For oil tankers of 5,000DWT and above constructed on or after 1 January 2007, the pump-room shall be provided with a double bottom tank or space. The depth of double bottom should not less than B/15 meters or 2 meters, whichever is lesser (the minimum 1 meter).

(iii) Accidental oil outflow performance (Reg. 23)

Oil tankers delivered on or after 1 January 2010 shall be applied new regulation 23, instead of the current regulations 22 to 24, to specify the tank arrangement for preventing oil outflow in the event of stranding and collision. In this regard, "Explanatory notes on matters related to the accidental oil outflow performance" was also adopted.

(iv) Shipboard oil pollution emergency plan (Reg. 37)

All oil tankers of 5,000 DWT and above shall have prompt access to computerised, shore-based damage stability and residual structure strength calculation programs.

(To be continued)

NOTES:

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- (2) MARPOL 73/78 - Annex II (See Attachment 2)

The revised MARPOL Annex II for the control of pollution by noxious liquid substances in bulk was adopted and is expected to enter into force on 1 January 2007.

The main point of revisions is the change of pollution category system of noxious liquid substances from a “5- category system” (A, B, C, D and III (other liquid substance)) to a “4- category system” (X, Y, Z and OS (other substance)).

The revised MARPOL Annex II contains various amendments such as stripping requirement, discharge requirement, etc. As the construction of the rules is changed, for your reference, a table of contents of re-constructed MARPOL Annex II is attached.
- (3) IBC Code (See Attachment 3)

The revised IBC Code, which reflects the revised MARPOL Annex II, was approved and is expected to enter into force on 1 January 2007. The safety matters in the revised IBC Code will be reviewed at MSC 79 with a view to adoption.

The revised IBC Code includes 575 products under chapters 17 and 18, which were re-evaluated in accordance with the revised criteria on pollution category and ship type. For your reference, the revised chapters 17 and 18 are attached.

There remain 187 products removed from either chapter 17 or 18 due to insufficient data to re-evaluate their pollution category and ship type. These products will be re-evaluated by the Expert Group when the required data are submitted to GESAMP. The re-evaluated products will be informed by MEPC. 2/Circ., usually issued and circulated in December each year.
2. Mandatory Instruments to be adopted by MEPC53 (in July 2005)

MEPC 53 is expected to adopt amendments to MARPOL Annex VI and NOx Technical Code concerning the issue on “fa factor”, “the North Sea as a SOx emission control area” and “the introduction of HSSC system”. These amendments have been approved at previous sessions, but the adoptions were put in abeyance until MARPOL Annex VI enters into force. Having noting that MARPOL Annex VI will enter into force on 19 May 2005, MEPC 52 decided the amendments with a view to adoption at MEPC 53.
3. Ballast water management

The development of guidelines (G1 to G13) for the International Convention on Ballast Water Management for Ships was agreed at MEPC 51. “The Guidelines for approval of ballast water management systems (G8)” and “Procedure for approval of active substances (G9)” were agreed, in principle, at this session for adoption at MEPC 53. The other Guidelines will be further considered at the Sub-Committee on Bulk Liquids and Gases at its ninth session held in April (BLG9) and MEPC in due course.

(To be continued)

4. Implementation date of the revised guideline for pollution prevention equipment (Res. MEPC. 107(49))

MEPC 52 clarified the implementation date on the revised guidelines for bilge separators and bilge alarms, which are specified in resolution MEPC. 107(49) adopted at MEPC 49 last year as follows:

- under paragraph 1. 3. 1. 1 of the revised guidelines, installations fitted on or after 1 January 2005 to ships whose keels were laid before that date NEED NOT meet the revised guidelines: and
- under paragraph 1. 3. 1. 2 of the revised guidelines, “new” installations should be interpreted as “replacement” installations and “fitted” should be interpreted as “ordered” on or after 1 January 2005, to ships whose keels were laid before 1 January 2005.

Therefore, the revised guidelines should be apply:

- to installations fitted to ships constructed on or after 1 January 2005: and
- to installations ordered on or after 1 January 2005 for replacement to ships constructed before 1 January 2005.

A summary of the outcomes of MEPC 52 is also available on the IMO web-site (<http://www.imo.org>).

For any questions about the above, please contact:

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Attachment:

1. A table of contents of the Revised MARPOL 73/78 Annex I
2. A table of contents of the Revised MARPOL 73/78 Annex II
3. Chapters 17 and 18 in the Revised IBC Code

ANNEX

TEXT OF THE REVISED ANNEX I OF MARPOL 73/78

Regulations for the Prevention of Pollution by Oil

Contents

CHAPTER 1 - GENERAL

Regulation 1	Definitions
Regulation 2	Application
Regulation 3	Exemptions and waivers
Regulation 4	Exceptions
Regulation 5	Equivalents

CHAPTER 2 - SURVEYS AND CERTIFICATION

Regulation 6	Surveys
Regulation 7	Issue or endorsement of certificate
Regulation 8	Issue or endorsement of certificate by another Government
Regulation 9	Form of certificate
Regulation 10	Duration and validity of certificate
Regulation 11	Port State control on operational requirements

CHAPTER 3 - REQUIREMENTS FOR MACHINERY SPACES OF ALL SHIPS**Part A Construction**

Regulation 12	Tanks for oil residues (sludge)
Regulation 13	Standard discharge connection

Part B Equipment

Regulation 14	Oil filtering equipment
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Part C Control of operational discharge of oil

Regulation 15	Control of discharge of oil
Regulation 16	Segregation of oil and water ballast and carriage of oil in forepeak tanks
Regulation 17	Oil Record Book, Part I - Machinery space operations

CHAPTER 4 - REQUIREMENTS FOR THE CARGO AREAS OF OIL TANKERS**Part A Construction**

Regulation 18	Segregated ballast tanks
Regulation 19	Double hull and double bottom requirements for oil tankers delivered on or after 6 July 1996
Regulation 20	Double hull and double bottom requirements for oil tankers delivered before 6 July 1996
Regulation 21	Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo

Regulation 22	Pump-room bottom protection
Regulation 23	Accidental oil outflow performance
Regulation 24	Damage assumptions
Regulation 25	Hypothetical outflow of oil
Regulation 26	Limitations of size and arrangement of cargo tanks
Regulation 27	Intact stability
Regulation 28	Subdivision and damage stability
Regulation 29	Slop tanks
Regulation 30	Pumping, piping and discharge arrangement

Part B Equipment

Regulation 31	Oil discharge monitoring and control system
Regulation 32	Oil/water interface detector
Regulation 33	Crude oil washing requirements

Part C Control of operational discharge of oil

Regulation 34	Control of discharge of oil
Regulation 35	Crude oil washing operations
Regulation 36	Oil Record Book, Part II - Cargo/ballast operations

CHAPTER 5 - PREVENTION OF OIL POLLUTION ARISING FROM AN OIL POLLUTION INCIDENT

Regulation 37	Shipboard oil pollution emergency plan
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CHAPTER 6 - RECEPTION FACILITIES

Regulation 38	Reception facilities
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CHAPTER 7 - SPECIAL REQUIREMENTS FOR FIXED OR FLOATING PLATFORMS

Regulation 39	Special requirements for fixed or floating platforms
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APPENDICES TO ANNEX I

Appendix I	List of oils
Appendix II	Form of IOPP Certificate
Appendix III	Form of Oil Record Book

TEXT OF THE REVISED ANNEX II OF MARPOL 73/78

**REGULATIONS FOR THE CONTROL OF POLLUTION
BY NOXIOUS LIQUID SUBSTANCES IN BULK**

Contents

Chapter 1 - General

- Regulation 1 Definitions
- Regulation 2 Application
- Regulation 3 Exceptions
- Regulation 4 Exemptions
- Regulation 5 Equivalents

Chapter 2 - Categorization of Noxious Liquid Substances and Other Substances

- Regulation 6 Categorization of and listing of Noxious Liquid Substances and Other Substances

Chapter 3 - Surveys and certification

- Regulation 7 Survey and certification of chemical tankers
- Regulation 8 Surveys
- Regulation 9 Issue or endorsement of certificate
- Regulation 10 Duration and validity of certificate

Chapter 4 - Design, construction, arrangement and equipment

- Regulation 11 Design, construction, equipment and operations
- Regulation 12 Pumping, piping, unloading arrangements, and slop tanks

Chapter 5 - Operational discharges of residues of Noxious Liquid Substances

- Regulation 13 Control of discharges of residues of Noxious Liquid Substances
- Regulation 14 Procedures and Arrangements Manual
- Regulation 15 Cargo Record Book

Chapter 6 - Measures of control by port States

- Regulation 16 Measures of control

Chapter 7 - Prevention of pollution arising from an incident involving Noxious Liquid Substances

- Regulation 17 Shipboard marine pollution emergency plan for Noxious Liquid Substances

Chapter 8 - Reception facilities

Regulation 18 Reception facilities and cargo unloading terminal arrangements

Appendices to Annex II

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|-------------------|--|
| Appendix 1 | Guidelines for the categorization of Noxious Liquid Substances |
| Appendix 2 | Form of Cargo Record Book for ships carrying Noxious Liquid Substances in Bulk |
| Appendix 3 | Form of International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk |
| Appendix 4 | Standard format for the Procedures and Arrangements Manual |
| Appendix 5 | Assessment of residue quantities in cargo tanks, pumps and associated piping |
| Appendix 6 | Prewash procedures |
| Appendix 7 | Ventilation procedures |

Chapter 17

a	c	d	e	f	g	h	i'	i''	i'''	j	k	l	n	o
Acetic acid	Z	S/P	3	2G	Cont	No	T1	IIA	No	R	F	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6, 16.2.9
Acetic anhydride	Z	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6
Acetone cyanohydrin	Y	S/P	2	2G	Cont	No	T1	IIA	Yes	C	T	A	Yes	15.1.15.12, 15.17, 15.18, 15.19, 16.6.1, 16.6.2, 16.6.3
Acetonitrile	Z	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	No	15.12, 15.19.6
Acrylic acid	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	No	15.13, 15.19.6, 16.6.1, 16.2.9
Acrylonitrile	Y	S/P	2	2G	Cont	No	T1	IIIB	No	C	F-T	A	Yes	15.12, 15.13, 15.17, 15.19
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	Y	P	3	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.6
Adiponitrile	Z	S/P	3	2G	Cont	No		IIIB	Yes	R	T	A	No	16.2.9
Alachlor technical (90% or more)	X	S/P	2	2G	Open	No			Yes	O	No	AC	No	15.19.6, 16.2.9
Alcohol (C9-C11) poly(2,5-9) ethoxylate	Y	P	3	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C12-C16) poly(1-6)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohol (C12-C16) poly(20+)ethoxylates	Y	P	3	2G	Open	No			Yes	O	No	A	No	16.2.9
Alcohol (C12-C16) poly(7-19)ethoxylates	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.9
Alcohols (C13+)	Y	P	2	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.9
Alkanes (C6-C9)	X	P	2	2G	Cont	No			No	R	F	A	No	15.19.6
Iso- and cyclo-alkanes (C10-C11)	Z	P	3	2G	Cont	No			No	R	F	A	No	
Iso- and cyclo-alkanes (C12+)	Z	P	3	2G	Cont	No			No	R	F	A	No	
n-Alkanes (C10+)	Z	P	3	2G	Cont	No			No	R	F	AB	No	
Alkenyl (C16-C20) succinic anhydride	Z	S/P	3	2G	Cont	No			Yes	C	T	No	Yes	15.12, 15.17, 15.19
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	X	S/P	1	2G	Cont	No	T1	IIA	Yes	C	T	ABC	No	15.12, 15.17, 15.19
Alkylated (C4-C9) hindered phenols	Y	S/P	2	2G	Open	No	-	-	Yes	O	No	BD	No	15.19.6, 16.2.6, 16.2.9
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	Z	P	3	2G	Open	No			Yes	O	No	A	No	15.19.6
Alkyl (C5-C8) benzenes	X	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6
Alkyl (C9+) benzenes	Z	P	3	2G	Open	No			Yes	O	No	AB	No	
Alkyl (C12+) dimethylamine	X	S/P	1	2G	Cont	No	-	-	Yes	C	T	BCD	Yes	15.12, 15.17, 15.19
Alkyl dithiocarbamate (C19-C35)	Y	P	3	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
Alkyl dithiothiazole (C6-C24)	Z	P	3	2G	Open	No			Yes	O	No	AB	No	
Alkyl ester copolymer (C4-C20)	Y	P	2	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)	Y	P	3	2G	Open	No			Yes	O	No	No	No	15.19.6, 16.2.6, 16.2.9

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Alkyl (C8-C10)/(C12-C14);(60% or more/40% or less) polyglucoside solution(55% or less)	Y	P	3	2G	Open	No	No	Yes	O	No	No	No	No	16.2.9, 16.2.6
Alkyl (C8-C40) phenol sulphide	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	No	
Alkyl (C8-C9) phenylamine in aromatic solvents	Y	P	2	2G	Cont	No	No	No	R	F	F	A	No	15.19.6
Alkyl (C9-C15) phenyl propoxylate	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	No	
Alkyl (C8-C10)/(C12-C14);(50%/50%) polyglucoside solution (55% or less)	Y	P	3	2G	Open	No	No	Yes	O	No	No	No	No	16.2.9, 16.2.6
Alkyl (C12-C14) polyglucoside solution (55% or less)	Y	P	3	2G	Open	No	No	Yes	O	No	No	No	No	15.19.6, 16.2.9
Alkyl (C8-C10) polyglucoside solution (65% or less).	Y	P	3	2G	Open	No	No	Yes	O	No	No	No	No	16.2.6
Alkyl(C10-C20, saturated and unsaturated) phosphite	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	No	16.2.9
Alkyl sulphonic acid ester of phenol	Y	P	3	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.6
Allyl alcohol	Y	S/P	2	2G	Cont	No	T2 IIB	No	C	F-T	A	Yes	Yes	15.12, 15.17, 15.19
Allyl chloride	Y	S/P	2	2G	Cont	No	T2 IIA	No	C	F-T	A	Yes	Yes	15.12, 15.17, 15.19
Aluminium sulphate solution	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	No	15.19.6
Aminoethyl ethanolamine	Z	S/P	3	2G	Open	No	T2 IIA	Yes	O	No	A	No	No	
2-Amino-2-methyl-1-propanol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Ammonia aqueous (28% or less)	Y	S/P	2	2G	Cont	No	No	NF	R	T	ABC	Yes	Yes	
Ammonium hydrogen phosphate solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Ammonium nitrate solution (93% or less)	Z	S/P	2	1G	Open	No	No	NF	O	No	No	No	No	15.2, 15.11.4, 15.11.6, 15.18, 15.19.6, 16.2.9
Ammonium polyphosphate solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Ammonium sulphate solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Ammonium sulphide solution (45% or less)	Y	S/P	2	2G	Cont	No	No	No	C	F-T	A	Yes	Yes	15.12, 15.17, 15.19, 16.6.1, 16.6.2, 16.6.3
Amyl acetate (all isomers)	Y	P	3	2G	Cont	No	No	No	R	F	F	A	No	15.19.6
n-Amyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	No	
Amyl alcohol, primary	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	No	
sec-Amyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	No	
tert-Amyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	A	No	No	
tert-Amyl methyl ether	X	P	2	2G	Cont	No	T3	No	R	F	F	A	No	15.19.6
Aniline	Y	S/P	2	2G	Cont	No	T1 IIA	Yes	C	T	A	No	No	15.12, 15.17, 15.19
Aryl polyolefins (C11-C50)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.6, 16.2.9
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	X	P	2	2G	Cont	No	No	No	R	F	B	No	No	15.19.6
Barium long chain (C11-C50) alkaryl sulphonate	Y	S/P	2	2G	Open	No	No	Yes	O	No	AD	No	No	15.12.3, 15.19, 16.2.6, 16.2.9
Benzene and mixtures having 10% benzene or more (i)	Y	S/P	3	2G	Cont	No	T1 IIA	No	C	F-T	AB	No	No	15.12.1, 15.17, 15.19.6, 16.2.9
Benzenetricarboxylic acid, trioctyl ester	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.6

Chapter 17

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Benzyl acetate	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	
Benzyl alcohol	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	
Bromochloromethane	Z	S/P	3	2G	Cont	No	No	NF	R	T	No	No	
Butyl acetate (all isomers)	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Butyl acrylate (all isomers)	Y	S/P	2	2G	Cont	No	T2	IIB	No	R	F-T	A	No 15.13, 15.19.6, 16.6.1, 16.6.2
tert-Butyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	A	No	
Butylamine (all isomers)	Y	S/P	2	2G	Cont	No	No	No	R	F-T	A	Yes	15.12, 15.17, 15.19.6
Butylbenzene (all isomers)	X	P	2	2G	Cont	No	No	No	R	F	A		15.19.6
Butyl benzyl phthalate	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6
Butyl butyrate (all isomers)	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	Y	S/P	2	2G	Cont	No	No	Yes	R	No	AD	No	15.13, 16.6.1, 16.6.2, 15.19.6
Butylene glycol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
1,2-Butylene oxide	Y	S/P	3	2G	Cont	Inert	T2	IIB	No	R	F	AC	No 15.8.1 to 15.8.7, 15.12, 15.13, 15.16, 15.17, 15.18, 15.19, 15.21, 15.25, 15.27, 15.29, 15.19.6
n-Butyl ether	Y	S/P	3	2G	Cont	Inert	T4	IIB	No	R	F-T	A	No 15.4.6, 15.12, 15.19.6
Butyl methacrylate	Z	S/P	3	2G	Cont	No	No	IIA	No	R	F-T	AD	No 15.13, 15.19.6, 16.6.1, 16.6.2
n-Butyl propionate	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Butyraldehyde (all isomers)	Y	S/P	3	2G	Cont	No	T3	IIA	No	R	F-T	A	No 15.19.6
Butyric acid	Y	S/P	3	2G	Cont	No	No	Yes	R	No	A	No	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6
gamma-Butyrolactone	Y	P	3	2G	Open	No	No	Yes	O	No	AB	No	15.19.6
Calcium carbonate slurry	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	
Calcium hypochlorite solution (15% or less)	Y	S/P	2	2G	Cont	No	No	NF	R	No	No	No	15.19.6
Calcium hypochlorite solution (more than 15%)	X	S/P	1	2G	Cont	No	No	NF	R	No	No	No	15.19, 16.2.9
Calcium long-chain alkyl(C5-C10) phenate	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	
Calcium long-chain alkyl(C11-C40) phenate	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Calcium long-chain alkyl phenate sulphide (C8-C40)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
epsilon-Caprolactam (molten or aqueous solutions)	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Carbon disulphide	Y	S/P	2	1G	Cont	Pad+iner	T6	IIC	No	C	F-T	C	Yes 15.3, 15.12, 15.19
Carbon tetrachloride	Y	S/P	2	2G	Cont	No	No	NF	C	T	No	Yes	15.12, 15.17, 15.19.6
Castor oil (containing less than 2% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6
Cetyl/Eicosyl methacrylate mixture	Y	S/P	2	2G	Open	No	No	Yes	O	No	AD	No	15.13, 16.6.1, 16.6.2, 15.19.6, 16.2.9

Chapter 17

a	c	d	e	f	g	h	i'	i''	i'''	j	k	l	n	o
Chlorinated paraffins (C10-C13)	X	P	1	2G	Open	No	No	Yes	O	No	No	A	No	15.19, 16.2.6
Chloroacetic acid (80% or less)	Y	S/P	2	2G	Cont	No	No	NF	C	No	No	No	No	15.11.2, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12.3, 15.19, 16.2.9
Chlorobenzene	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	F-T	AB	No	15.19.6
Chloroform	Y	S/P	3	2G	Cont	No	No	NF	R	T	No	Yes	Yes	15.12, 15.19.6
Chlorohydrins (crude)	Y	S/P	2	2G	Cont	No	No	IIA	No	C	F-T	A	No	15.12, 15.19
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	Y	P	2	2G	Open	No	No	NF	O	No	No	No	No	16.2.9
1-(4-Chlorophenyl)-4,4-dimethyl-pentan-3-one	Y	P	2	2G	Open	No	No	Yes	O	No	ABD	No	No	15.19.6, 16.2.6, 16.2.9
2- or 3-Chloropropionic acid	Z	S/P	3	2G	Open	No	No	Yes	O	No	A	No	No	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 16.2.9
Chlorosulphonic acid	Y	S/P	1	2G	Cont	No	No	NF	C	T	No	Yes	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, 15.19
o-Chlorotoluene	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AB	No	No	15.19.6
p-Chlorotoluene	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AB	No	No	15.19.6, 16.2.9
Chlorotoluenes (mixed isomers)	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AB	No	No	15.19.6
Choline chloride solutions	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Citric acid (70% or less)	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Coconut oil (containing less than 5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	No	15.19.6, 16.2.6, 16.2.9
Corn Oil (containing less than 10% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	No	15.19.6, 16.2.6
Cotton seed oil (containing less than 12% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	No	15.19.6, 16.2.6, 16.2.9
Cresols (all isomers)	Y	S/P	2	2G	Open	No	T1	IIA	Yes	O	No	AB	No	15.19.6, 16.2.9
Cresylic acid, dephenolized	Y	S/P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6
Crotonaldehyde	Y	S/P	2	2G	Cont	No	T3	IIB	No	R	F-T	A	Yes	15.12, 15.17, 15.19.6
1,5,9-Cyclododecatriene	X	S/P	1	2G	Cont	No	No	Yes	R	T	A	No	No	15.13, 15.19, 16.6.1, 16.6.2
Cycloheptane	X	P	2	2G	Cont	No	No	No	R	F	A	No	No	15.19.6
Cyclohexane	Y	P	2	2G	Cont	No	No	No	R	F	A	No	No	15.19.6, 16.2.9
Cyclohexanol	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.9
Cyclohexanone	Z	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	A	No	15.19.6
Cyclohexanone, Cyclohexanol mixture	Y	S/P	3	2G	Cont	No	No	Yes	R	F-T	A	No	No	
Cyclohexyl acetate	Y	P	3	2G	Cont	No	No	No	R	F	A	No	No	15.19.6
Cyclohexylamine	Y	S/P	3	2G	Cont	No	T3	IIA	No	R	F-T	AC	No	15.19.6
1,3-Cyclopentadiene dimer (molten)	Y	P	2	2G	Cont	No	No	No	R	F	A	No	No	15.19.6, 16.2.6, 16.2.9

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Cyclopentane	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Cyclopentene	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
p-Cymene	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Decahydrophthalene	Y	P	2	2G	Cont	No	No	No	R	F	AB	No	15.19.6	
Decanoic acid	X	P	2	2G	Open	No	Yes	O	No	A	A	No	16.2.9	
Decyl acrylate	X	S/P	1	2G	Open	No	T3	IIA	Yes	O	No	ACD	No	15.13, 15.19, 16.6.1, 16.6.2
Decyl alcohol (all isomers)	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.9(e)	
Diacetone alcohol	Z	P	3	2G	Cont	No	No	No	R	F	A	No		
Dialkyl (C8-C9) diphenylamines	Z	P	3	2G	Open	No	Yes	O	No	AB	No	No		
Dialkyl (C7-C13) phthalates	X	P	2	2G	Open	No	Yes	O	No	AB	No	No	15.19.6, 16.2.6	
Dibromomethane	Y	S/P	2	2G	Cont	No	NF	R	T	No	No	No	15.12.3, 15.19	
Dibutylamine	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	ACD	No	15.19.6
Dibutyl hydrogen phosphonate	Y	P	3	2G	Open	No	Yes	O	No	A	No	No	15.19.6, 16.2.9	
Dibutyl phthalate	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6	
Dichlorobenzene (all isomers)	X	S/P	2	2G	Cont	No	T1	IIA	Yes	R	T	ABD	No	15.19.6
3,4-Dichloro-1-butene	Y	S/P	2	2G	Cont	No	No	No	C	F-T	ABC	Yes	15.12.3, 15.17, 15.19.6	
Dichloroethyl ether	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	No	15.19.6
2,2'-Dichloroisopropyl ether	Y	S/P	2	2G	Cont	No	No	Yes	R	T	ACD	No	15.12, 15.17, 15.19	
2,4-Dichlorophenol	Y	S/P	2	2G	Cont	Dry	Yes	R	T	A	No	No	15.19.6, 16.2.6, 16.2.9	
1,1-Dichloropropane	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AB	No	15.12, 15.19.6	
1,2-Dichloropropane	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	F-T	AB	No	15.12, 15.19.6
1,3-Dichloropropene	X	S/P	2	2G	Cont	No	T2	IIA	No	C	F-T	AB	Yes	15.12, 15.17, 15.18, 15.19
Dichloropropene/Dichloropropane mixtures	X	S/P	2	2G	Cont	No	No	No	C	F-T	ABD	Yes	15.12, 15.17, 15.18, 15.19	
Diethanolamine	Y	S/P	3	2G	Open	No	T1	IIA	Yes	O	No	A	No	16.2.6, 16.2.9
Diethylamine	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	A	Yes	15.12, 15.19.6
Diethylaminoethanol	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	AC	No	15.19.6
Diethylbenzene	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Diethylenetriamine	Y	S/P	3	2G	Open	No	T2	IIA	Yes	O	No	A	No	
Diethyl ether	Z	S/P	2	1G	Cont	Inert	T4	IIB	No	C	F-T	A	Yes	15.4, 15.14, 15.19
Di-(2-ethylhexyl) adipate	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6	
Diethyl phthalate	Y	P	2	2G	Open	No	No	Yes	O	No	A	No		
Diethyl sulphate	Y	S/P	2	2G	Cont	No	No	Yes	C	T	A	No	15.19.6	
Dihexyl phthalate	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6	

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Di-n-hexyl adipate	X	P	1	2G	Open	No	No	Yes	O	No	A	No	15.19	
Dihexyl phthalate	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6	
Diisobutylamine	Y	S/P	2	2G	Cont	No	No	No	R	F-T	ACD	No	15.12.3, 15.19.6	
Diisobutylene	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Diisobutyl ketone	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Diisobutyl phthalate	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6	
Diisooctyl phthalate	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6	
Diisopropanolamine	Z	S/P	3	2G	Open	No	T2	IIA	Yes	O	No	A	No	16.2.9
Diisopropylamine	Y	S/P	2	2G	Cont	No	T2	IIA	No	C	F-T	A	Yes	15.12, 15.19
Diisopropylbenzene (all isomers)	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6	
N,N-Dimethylacetamide	Z	S/P	3	2G	Cont	No	-	-	Yes	C	T	ACD	No	15.12, 15.17
N,N-Dimethylacetamide solution (40% or less)	Z	S/P	3	2G	Cont	No	No	Yes	R	T	B	No	15.12.1, 15.17	
Dimethyl adipate	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.9	
Dimethylamine solution (45% or less)	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	ACD	No	15.12, 15.19.6
Dimethylamine solution (greater than 45% but not greater than 55%)	Y	S/P	2	2G	Cont	No	No	No	C	F-T	ACD	Yes	15.12, 15.17, 15.19	
Dimethylamine solution (greater than 55% but not greater than 65%)	Y	S/P	2	2G	Cont	No	No	No	C	F-T	ACD	Yes	15.12, 15.14, 15.17, 15.19	
N,N-Dimethylcyclohexylamine	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AC	No	15.12, 15.17, 15.19.6	
Dimethyl disulphide	Y	S/P	2	2G	Cont	No	T3	IIA	No	R	F-T	B	No	15.12.3, 15.12.4, 15.19.6
N,N-Dimethyldodecylamine	X	S/P	1	2G	Open	No	No	Yes	O	No	B	No	15.19	
Dimethylethanolamine	Y	S/P	3	2G	Cont	No	T3	IIA	No	R	F-T	AD	No	15.19.6
Dimethylformamide	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	AD	No	15.19.6
Dimethyl glutarate	Y	P	3	2G	Open	No	No	Yes	O	No	A	No		
Dimethyl hydrogen phosphite	Y	S/P	3	2G	Cont	No	No	Yes	R	T	AD	No	15.12.1, 15.19.6	
Dimethyl octanoic acid	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	16.2.9, 16.2.6	
Dimethyl phthalate	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	16.2.9	
Dimethyl polysiloxane	Y	P	3	2G	Open	No	No	Yes	O	No	AB	No	15.19.6	
2,2-Dimethylpropane-1,3-diol (molten or solution)	Z	P	3	2G	Open	No	*	Yes	O	No	AB	No		
Dimethyl succinate	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	16.2.9	
Dinitrotoluene (molten)	X	S/P	2	2G	Cont	No	No	Yes	C	T	A	No	15.12, 15.17, 15.19, 15.21, 16.6.4, 16.2.6, 16.2.9	
Diethyl phthalate	X	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6	
1,4-Dioxane	Y	S/P	2	2G	Cont	No	T2	IIA	No	C	F-T	A	No	15.12, 15.19, 16.2.9
Dipentene	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Diphenyl	X	P	2	2G	Open	No	No	Yes	O	No	B	No	15.19.6, 16.2.6, 16.2.9	

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Diphenyl/Diphenyl ether mixtures	X	P	2	2G	Open	No		Yes	O	No	B	No	15.19.6, 16.2.9
Diphenyl ether	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Diphenyl ether/Diphenyl phenyl ether mixture	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Diphenylol propane-epichlorohydrin resins	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Di-n-propylamine	Y	S/P	2	2G	Cont	No		No	R	F-T	A	No	15.12.3, 15.19.6
Dipropylene glycol	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Dithiocarbamate ester (C7-C35)	X	P	2	2G	Open	No		Yes	O	No	AD	No	15.19.6, 16.2.9
Ditundecyl phthalate	Y	P	2	2G	Open	No		Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
Dodecane (all isomers)	Y	P	2	2G	Cont	No		No	R	F	AB	No	15.19.6
tert-Dodecanethiol	X	S/P	1	2G	Cont	No	-	Yes	C	T	ABD	Yes	15.12, 15.17, 15.19
Dodecene (all isomers)	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6
Dodecyl alcohol	Y	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Dodecylbenzene	Z	P	3	2G	Open	No		Yes	O	No	AB	No	
Dodecyl hydroxypropyl sulphide	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6
Dodecyl methacrylate	Z	S/P	3	2G	Open	No		Yes	O	No	A	No	15.13
Dodecyl/Octadecyl methacrylate (mixture)	Z	S/P	3	2G	Open	No		Yes	R	No	AD	No	15.13, 16.6.1, 16.6.2
Dodecyl/Pentadecyl methacrylate mixture	Y	S/P	2	2G	Open	No		Yes	O	No	AD	No	15.13, 16.6.1, 16.6.2, 15.19.6
Dodecyl phenol	X	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.6
Dodecyl Xylene	Y	P	2	2G	Open	No		Yes	O	No	AB	No	15.19.6, 16.2.6
Drilling brines (containing Zinc salts)	X	P	2	2G	Open	No		Yes	O	No	No	No	15.19.6
Drilling brines, including:calcium bromide solution, calcium chloride solution and sodium chloride solutions solution	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Epichlorohydrin	Y	S/P	2	2G	Cont	No	IIIB	No	C	F-T	A	Yes	15.12, 15.17, 15.19
Ethanolamine	Y	S/P	3	2G	Open	No	T2 IIA	Yes	O	F-T	A	No	16.2.9
2-Ethoxyethyl acetate	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6
Ethoxylated long chain (C16+) alkyloxyalkylamine	Z	P	3	2G	Open	No		Yes	O	No	AB	No	
Ethyl acetate	Z	P	3	2G	Cont	No		No	R	F	AB	No	
Ethyl acetate	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Ethyl acrylate	Y	S/P	2	2G	Cont	No	T2 IIIB	No	R	F-T	A	Yes	15.13, 15.19.6, 16.6.1, 16.6.2
Ethylamine	Y	S/P	2	1G	Cont	No	T2 IIA	No	C	F-T	CD	Yes	15.12, 15.14, 15.19.6
Ethylamine solutions (72% or less)	Y	S/P	2	2G	Cont	No		No	C	F-T	AC	Yes	15.12, 15.14, 15.17, 15.19
Ethylbenzene	Y	P	2	2G	Cont	No		No	R	F	A	No	15.19.6
Ethyl tert-butyl ether	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6
Ethylcyclohexane	Y	P	2	2G	Cont	No		No	R	F	A	No	15.19.6

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N-Ethylcyclohexylamine	Y	S/P	2	2G	Cont	No	No	No	No	R	F-T	A	No	15.19.6
S-Ethyl dipropylthiocarbamate	Y	P	2	2G	Open	No	No	Yes	O	No	No	A	No	16.2.9
Ethylene chlorohydrin	Y	S/P	2	2G	Cont	No	T2	IIA	No	C	F-T	AD	Yes	15.12, 15.17, 15.19
Ethylene cyanohydrin	Y	S/P	3	2G	Open	No	III	Yes	O	No	No	A	No	
Ethylene diamine	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	No	15.19.6, 16.2.9
Ethylene dibromide	Y	S/P	2	2G	Cont	No	No	NF	C	T	No	No	Yes	15.12, 15.19.6, 16.2.9
Ethylene dichloride	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	AB	No	15.19
Ethylene glycol	Y	P	3	2G	Open	No	No	Yes	O	No	No	A	No	15.19.6
Ethylene glycol butyl ether acetate	Y	P	3	2G	Open	No	No	Yes	O	No	No	A	No	
Ethylene glycol diacetate	Y	P	3	2G	Open	No	No	Yes	O	No	No	A	No	
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	II	No	C	F-T	AC	No	15.8, 15.12, 15.14, 15.19
Ethyl-3-ethoxypropionate	Y	P	3	2G	Cont	No	No	No	R	No	No	A	No	15.19.6
2-Ethylhexanoic acid	Y	P	3	2G	Open	No	No	Yes	O	No	No	AB	No	15.19.6
2-Ethylhexyl acrylate	Y	S/P	3	2G	Open	No	T3	III	Yes	O	No	A	No	15.13, 15.19.6, 16.6.1, 16.6.2
2-Ethylhexylamine	Y	S/P	2	2G	Cont	No	No	No	R	F-T	A	No	No	15.12, 15.19.6
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol, C8-C10 ester	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.6, 16.2.9
Ethylidene norbornene	Y	S/P	2	2G	Cont	No	No	No	R	F-T	AD	No	No	15.12.1, 15.19.6
Ethyl methacrylate	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F-T	AD	No	15.13, 15.19.6, 16.6.1, 16.6.2
N-Ethylmethylallylamine	Y	S/P	2	2G	Cont	No	T2	III	No	C	F	AC	Yes	15.12.3, 15.17, 15.19
2-Ethyl-3-propylacrolein	Y	S/P	3	2G	Cont	No	IIA	No	R	F-T	A	No	No	15.19.6, 16.2.9
para-Ethyl Toluene	Y	P	2	2G	Cont	No	No	No	R	F	A	No	No	15.19.6
Fatty acid (saturated C13+)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6, 16.2.9
Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester.	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	No	15.19.6
Ferric chloride solutions	Y	S/P	3	2G	Open	No	No	NF	O	No	No	No	No	15.11, 15.19.6, 16.2.9
Ferric nitrate/Nitric acid solution	Y	S/P	2	2G	Cont	No	No	NF	R	T	No	Yes	Yes	15.11, 15.19
Fish oil (containing less than 4% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	-	Yes	Open	No	ABC	NO	15.19.6, 16.2.6, 16.2.9
Formaldehyde solutions (45% or less)	Y	S/P	3	2G	Cont	No	T2	III	No	R	F-T	A	Yes	15.19.6, 16.2.9
Formamide	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	No	15.19.6, 16.2.9
Formic acid	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	T(g)	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6, 16.2.9
Furfural	Y	S/P	3	2G	Cont	No	T2	III	No	R	F-T	A	No	15.19.6
Furfuryl alcohol	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	No	
Glutaraldehyde solutions (50% or less)	Y	S/P	3	2G	Open	No	No	NF	O	No	No	No	No	15.19.6

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Glyceryl triacetate	Z	P	3	2G	Open	No		Yes	O	No	AB	No	
Glycidyl ester of C10 trialkylacetic acid	Y	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6
Glycine, sodium salt solution	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Glycolic acid solution (70% or less)	Z	S/P	3	2G	Open	No	-	NF	O	No	No	No	15.19.6, 16.2.9
Glyoxal solution (40% or less)	Y	P	3	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Glyphosate solution (not containing surfactant)	Y	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9
Groundnut oil (containing less than 4% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
													D
Heptane (all isomers)	X	P	2	2G	Cont	No		No	R	F	A		15.19.6, 16.2.9
n-Heptanoic acid	Z	P	3	2G	Open	No		Yes	O	No	AB	No	
Heptanol (all isomers) (d)	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6
Heptene (all isomers)	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6
Heptyl acetate	Y	P	2	2G	Open	No		Yes	O	No	A	No	15.19.6
1-Hexadecylinaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	Y	P	2	2G	Open	No		Yes	O	No	AB	No	15.19.6, 16.2.6
Hexamethylenediamine adipate (50% in water)	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Hexamethylenediamine (molten)	Y	S/P	2	2G	Cont	No		Yes	C	T	C	Yes	15.12, 15.17, 15.18, 15.19.6, 16.2.9
Hexamethylenediamine solution	Y	S/P	3	2G	Cont	No		Yes	R	T	A	No	15.19.6
Hexamethylene diisocyanate	Y	S/P	2	1G	Cont	Dry	TI	Yes	III B	Yes	C	T	A, Yes 15.12, 15.17, 15.16.2, 15.18, 15.19
													C(b), D
Hexamethylene glycol	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Hexamethyleneimine	Y	S/P	2	2G	Cont	No		No	R	F-T	AC	No	15.19.6
Hexane (all isomers)	Y	P	2	2G	Cont	No		No	R	F	A		15.19.6
1,6-Hexanediol, distillation overheads	Y	S/P	3	2G	Cont	No	-	Yes	R	T	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
													D
Hexanoic acid	Y	P	3	2G	Open	No		Yes	O	No	AB	No	15.19.6
Hexanol	Y	P	3	2G	Open	No		Yes	O	No	AB	No	15.19.6
Hexene (all isomers)	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6
Hexyl acetate	Y	P	2	2G	Cont	No		No	R	F	A	No	15.19.6
Hydrochloric acid	Z	S/P	3	1G	Cont	No		NF	R	T	No	Yes	15.11
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	Y	S/P	2	2G	Cont	No		NF	C	No	No	No	15.5.1, 15.19.6
2-Hydroxyethyl acrylate	Y	S/P	2	2G	Cont	No		Yes	C	T	A	No	15.12, 15.13, 15.19.6, 16.6.1, 16.6.2
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	Y	P	3	2G	Open	No		Yes	O	No	A	No	15.19.6
2-Hydroxy-4-(methylthio)butanoic acid	Z	P	3	2G	Open	No		Yes	O	No	A	No	
Isoamyl alcohol	Z	P	3	2G	Cont	No		No	R	F	AB	No	

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a	c	d	e	f	g	h	i'	i''	j	k	l	n	o
Isobutyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	
Isobutyl formate	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	
Isobutyl methacrylate	Z	S/P	3	2G	Cont	No	IIA	No	C	F-T	BD	Yes	15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
Isophorone	Y	S/P	3	2G	Cont	No	No	Yes	R	No	A	No	
Isophoronediamine	Y	S/P	3	2G	Cont	No	No	Yes	R	T	A	No	16.2.9
Isophorone diisocyanate	X	S/P	2	2G	Cont	Dry	Yes	C	T	ABD	No	Yes	15.12, 15.16.2, 15.17, 15.19.6
Isoprene	Y	S/P	3	2G	Cont	No	T3 IIB	No	R	F	B	No	15.13, 15.14, 15.19.6, 16.6.1, 16.6.2
Isopropanolamine	Y	S/P	3	2G	Open	No	T2 IIA	Yes	O	F-T	A	No	16.2.9, 15.19.6, 16.2.6
Isopropyl acetate	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	
Isopropylamine	Y	S/P	2	2G	Cont	No	T2 IIA	No	C	F-T	CD	Yes	15.12, 15.14, 15.19
Isopropylcyclohexane	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6, 16.2.9
Isopropyl ether	Y	S/P	3	2G	Cont	Inert	No	No	R	F	A	No	15.4.6, 15.13.3, 15.19.6
Lactic acid	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Lactonitrile solution (80% or less)	Y	S/P	2	1G	Cont	No	No	Yes	C	T	ACD	Yes	15.1, 15.12, 15.17, 15.18, 15.19, 16.6.1, 16.2.2, 16.6.3
Lard (containing less than 1% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Lauric acid	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9
Linsed oil (containing less than 2% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6
Liquid chemical wastes	X	S/P	2	2G	Cont	No	No	No	C	F-T	A	E	15.12, 15.19.6, 20.5.1
Long-chain alkaryl polyether (C11-C20)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	16.2.6, 16.2.9
L-Lysine solution (60% or less)	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Magnesium chloride solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Maleic anhydride	Y	S/P	3	2G	Cont	No	No	Yes	R	No	A, C(f)	No	16.2.9
Mercaptobenzothiazol, sodium salt solution	X	S/P	2	2G	Open	No	No	NF	O	No	No	No	15.19.6, 16.2.9
Mesityl oxide	Z	S/P	3	2G	Cont	No	T2 IIB	No	R	F-T	A	No	15.19.6
Metam sodium solution	X	S/P	1	2G	Open	No	No	NF	O	No	No	No	15.19, 16.2.9
Methacrylic acid	Y	S/P	3	2G	Cont	No	No	Yes	R	T	A	No	15.13, 16.6.1, 15.19.6, 16.2.9
Methacrylic resin in Ethylene dichloride	Y	S/P	2	2G	Cont	No	T2 IIA	No	R	F-T	AB	No	15.19, 16.2.9
Methacrylonitrile	Y	S/P	2	2G	Cont	No	No	No	C	F-T	A	Yes	15.12, 15.13, 15.17, 15.19
3-Methoxy-1-butanol	Z	P	3	2G	Cont	No	No	No	R	F	A	No	
3-Methoxybutyl acetate	Y	P	3	2G	Open	No	No	Yes	O	No	AB	No	15.19.6
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetamide	X	P	1	2G	Open	No	No	Yes	O	No	A	No	15.19, 16.2.6

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a	c	d	e	f	g	h	i'	i''	j	k	l	n	o
Methyl acetate	Z	P	3	2G	Cont	No	No	No	R	F	A	No	
Methyl acetoacetate	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Methyl acrylate	Y	S/P	2	2G	Cont	No	TI	IIB	No	R	F-T	A	Yes 15.13, 15.19.6, 16.6.1, 16.6.2
Methyl alcohol	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylamine solutions (42% or less)	Y	S/P	2	2G	Cont	No	No	No	C	F-T	ACD	Yes	15.12, 15.17, 15.19
Methylamyl acetate	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylamyl alcohol	Z	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylamyl ketone	Z	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylbutenol	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6, 16.2.9
Methyl tert-butyl ether	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	
Methyl butyl ketone	Y	P	3	2G	Cont	No	No	No	R	F	AB	No	15.19.6
Methylbutynol	Z	P	3	2G	Cont	No	No	No	R	F	A	No	
Methyl butyrate	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylcyclohexane	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6
Methylcyclopentadiene dimer	Y	P	2	2G	Cont	No	No	No	R	F	B	No	15.19.6
Methylcyclopentadienyl manganese tricarbonyl	X	S/P	1	1G	Cont	No	-	-	Yes	C	T	ABC	Yes 15.12, 15.18, 15.19, 16.2.9
													D
Methyl diethanolamine	Y	S/P	3	2G	Open	No	No	Yes	O	No	A	No	16.2.6
2-Methyl-6-ethyl aniline	Y	S/P	3	2G	Open	No	No	Yes	O	No	AD	No	
Methyl ethyl ketone	Z	P	3	2G	Cont	No	No	No	R	F	A	No	
2-Methyl-5-ethyl pyridine	Y	S/P	3	2G	Open	No	IIA	Yes	O	No	AD	No	15.19.6
Methyl formate	Z	S/P	2	2G	Cont	No	No	No	R	F-T	A	Yes	15.12, 15.14, 15.19
2-Methyl-2-hydroxy-3-butyne	Z	S/P	3	2G	Cont	No	IIA	No	R	F-T	ABD		15.19.6, 16.2.9
Methyl isobutyl ketone	Z	P	3	2G	Cont	No	No	No	R	F	AB	No	
Methyl methacrylate	Y	S/P	2	2G	Cont	No	T2	IIA	No	R	F-T	A	No 15.13, 15.19.6, 16.6.1, 16.6.2
3-Methyl-3-methoxybutanol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Methyl naphthalene (molten)	X	S/P	2	2G	Cont	No	No	Yes	R	No	AD	No	15.19.6
2-Methylpyridine	Z	S/P	2	2G	Cont	No	No	No	C	F	A	No	15.12.3, 15.19.6
3-Methylpyridine	Z	S/P	2	2G	Cont	No	No	No	C	F	AC	No	15.12.3, 15.19
4-Methylpyridine	Z	S/P	2	2G	Cont	No	No	No	C	F-T	A	No	15.12.3, 15.19, 16.2.9
N-Methyl-2-pyrrolidone	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	15.19.6
Methyl salicylate	Y	P	3	2G	Open	No	No	Yes	O	No	A	No	15.19.6
alpha-Methylstyrene	Y	S/P	2	2G	Cont	No	TI	IIB	No	R	F-T	A,D;J	No 15.13, 15.19.6, 16.6.1, 16.6.2

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a	c	d	e	f	g	h	i'	i''	i'''	j	k	l	n	o
3-(methylthio)propionaldehyde	Y	S/P	2	2G	Cont	No	T3	IIA	Yes	C	T	BC	Yes	15.12, 15.17, 15.19
Morpholine	Y	S/P	3	2G	Cont	No	T2	IIA	No	R	F	A	No	15.19.6
Motor fuel anti-knock compounds (containing lead alkyls)	X	S/P	1	1G	Cont	No	T4	IIA	No	C	F-T	AC	Yes	15.6, 15.12, 15.18, 15.19
Naphthalene (molten)	X	S/P	2	2G	Cont	No	T1	IIA	Yes	R	No	AD	No	15.19.6, 16.2.9
Neodecanoic acid	Y	P	2	2G	Open	No			Yes	O	No	A	No	
Nitric acid (mixture of sulphuric and nitric acids)	Y	S/P	2	2G	Cont	No			NF	C	T	No	Yes	15.11, 15.16.2, 15.17, 15.19
Nitric acid (70% and over)	Y	S/P	2	2G	Cont	No			NF	C	T	No	Yes	15.11, 15.19
Nitric acid (less than 70%)	Y	S/P	2	2G	Cont	No			NF	R	T	No	Yes	15.11, 15.19
Nitriiotriacetic acid, trisodium salt solution	Y	P	3	2G	Open	No			Yes	O	No	A	No	15.19.6
Nitrobenzene	Y	S/P	2	2G	Cont	No	T1	IIA	Yes	C	T	AD	No	15.12, 15.17, 15.18, 15.19, 16.2.9
Nitroethane	Y	S/P	3	2G	Cont	No		IIIB	No	R	F-T	A(f)	No	15.19.6, 16.6.1, 16.6.2, 16.6.4
Nitroethane(80%)/Nitropropane(20%)	Y	S/P	3	2G	Cont	No		IIIB	No	R	F-T	A(f)	No	15.19.6, 16.6.1, 16.6.2, 16.6.3
o-Nitrophenol (molten)	Y	S/P	2	2G	Cont	No			Yes	C	T	AD	No	15.12, 15.19.6, 16.2.6, 16.2.9
1- or 2-Nitropropane	Y	S/P	3	2G	Cont	No	T2	IIIB	No	R	F-T	A	No	15.19.6
Nitropropane (60%)/Nitroethane (40%) mixture	Y	S/P	3	2G	Cont	No			No	R	F-T	A(f)	No	15.19.6
Nonane (all isomers)	X	P	2	2G	Cont	No			No	R	F	BC		15.19.6
Nonanoic acid (all isomers)	Y	P	3	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.9
Nonene (all isomers)	Y	P	2	2G	Cont	No			No	R	F	A	No	15.19.6
Nonyl alcohol (all isomers)	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6
Nonyl methacrylate monomer	Y	P	2	2G	Open	No			Yes	O	No	AB	No	15.19.6, 16.2.9
Nonylphenol	X	P	1	2G	Open	No			Yes	O	No	A	No	15.19, 16.2.6, 16.2.9
Noxious liquid, NF, (1) n.o.s. (trade name ..., contains ...) ST1, Cat. X	X	P	1	2G	Open	No	-	-	Yes	O	No	A	No	15.19, 16.2.6
Noxious liquid, F, (2) n.o.s. (trade name ..., contains ...) ST1, Cat. X	X	P	1	2G	Cont	No	T3	IIA	No	R	No	A	No	15.19, 16.2.6
Noxious liquid, NF, (3) n.o.s. (trade name ..., contains ...) ST2, Cat. X	X	P	2	2G	Open	No	-	-	Yes	O	No	A	No	15.19, 16.2.6
Noxious liquid, F, (4) n.o.s. (trade name ..., contains ...) ST2, Cat. X	X	P	2	2G	Cont	No	T3	IIA	No	R	No	A	No	15.19, 16.2.6
Noxious liquid, NF, (5) n.o.s. (trade name ..., contains ...) ST2, Cat. Y	Y	P	2	2G	Open	No	-	-	Yes	O	No	A	No	15.19, 16.2.6, 16.2.9
Noxious liquid, F, (6) n.o.s. (trade name ..., contains ...) ST2, Cat. Y	Y	P	2	2G	Cont	No	T3	IIA	No	R	No	A	No	15.19, 16.2.6, 16.2.9
Noxious liquid, NF, (7) n.o.s. (trade name ..., contains ...) ST3, Cat. Y	Y	P	3	2G	Open	No	-	-	Yes	O	No	A	No	15.19, 16.2.6, 16.2.9
Noxious liquid, F, (8) n.o.s. (trade name ..., contains ...) ST3, Cat. Y	Y	P	3	2G	Cont	No	T3	IIA	No	R	No	A	No	15.19, 16.2.6, 16.2.9
Noxious liquid, NF, (9) n.o.s. (trade name ..., contains ...) ST3, Cat. Z	Z	P	3	2G	Open	No	-	-	Yes	O	No	A	No	
Noxious liquid, F, (10) n.o.s. (trade name ..., contains ...) ST3, Cat. Z	Z	P	3	2G	Cont	No	T3	IIA	No	R	No	A	No	
Octane (all isomers)	X	P	2	2G	Cont	No			No	R	F	A		15.19.6
Octanoic acid (all isomers)	Z	P	3	2G	Open	No			Yes	O	No	AB	No	

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a	c	d	e	f	g	h	i'	i''	j	k	l	n	o
Octanol (all isomers)	Y	P	2	2G	Open	No	-	Yes	O	No	A	No	
Octene (all isomers)	Y	P	2	2G	Cont	No	-	No	R	F	A	No	15.19.6
Octyl aldehydes	Y	P	2	2G	Cont	No	-	No	R	F	A	No	15.19.6, 16.2.9
Olefin-Alkyl ester copolymer (molecular weight 2000+)	Y	P	2	2G	Open	No	-	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
Olefins (C13+, all isomers)	Y	P	2	2G	Open	No	-	Yes	O	No	AB	No	15.19.6, 16.2.9
Oleic acid	Y	P	2	2G	Open	No	-	Yes	O	No	AB	No	15.19.6, 16.2.9
Oleum	Y	S/P	2	2G	Cont	No	-	NF	C	T	No	Yes	15.11.2 to 15.11.8, 15.12.1, 15.16.2, 15.17, 15.19, 16.2.6
Olive oil (containing less than 3.3% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Palm kernel oil (containing less than 5% free fatty acids)	Y	NA	2(k)	2G	Open	No	T3	Yes	Open	No	AB	No	15.19.6, 16.2.6, 16.2.9
Palm oil (containing less than 5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Palm olein (containing less than 5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Palm stearin (containing less than 5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Paraffin wax	Y	P	2	2G	Open	No	-	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9
Paraldehyde	Z	S/P	3	2G	Cont	No	T3	No	R	F	A	No	15.19.6, 16.2.9
Paraldehyde-ammonia reaction product	Y	S/P	2	2G	Cont	No	-	No	C	F-T	A	No	15.12.3, 15.19
Pentachloroethane	Y	S/P	2	2G	Cont	No	-	NF	R	T	No	No	15.12, 15.17, 15.19.6
1,3-Pentadiene	Y	S/P	3	2G	Cont	No	-	No	R	F-T	AB	No	15.13, 15.19.6, 16.6.1, 16.6.2, 16.6.3
Pentane (all isomers)	Y	P	3	2G	Cont	No	-	No	R	F	A	No	15.14, 15.19.6
Pentanoic acid	Y	P	3	2G	Open	No	-	Yes	O	No	AB	No	15.19.6
n-Pentanoic acid (64%/2-Methyl butyric acid (36%) mixture)	Y	S/P	2	2G	Open	No	T2	Yes	C	No	AD	No	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12.3, 15.19
Pentene (all isomers)	Y	P	3	2G	Cont	No	-	No	R	F	A	No	15.14, 15.19.6
n-Pentyl propionate	Y	P	3	2G	Cont	No	-	No	R	F	A	No	15.19.6
Perchloroethylene	Y	S/P	2	2G	Cont	No	-	NF	R	T	No	No	15.12.1, 15.12.2, 15.19.6
Petrolatum	Z	P	3	2G	Open	No	-	Yes	O	No	AB	No	
Phenol	Y	S/P	2	2G	Cont	No	TI	Yes	C	T	A	No	15.12, 15.19, 16.2.9
1-Phenyl-1-xylyl ethane	Y	P	3	2G	Open	No	-	Yes	O	No	AB	No	
Phosphoric acid	Z	S/P	3	2G	Open	No	-	NF	O	No	No	No	15.11.1, 15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 16.2.9
Phosphorous, yellow or white	X	S/P	1	IG	Cont	Pad+(ven tor inert)	-	No(c)	C	No	C	Yes	15.7, 15.19, 16.2.9
Phthalic anhydride (molten)	Y	S/P	2	2G	Cont	No	TI	Yes	R	No	AD	No	16.2.9, 15.19.6, 16.2.6

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a	c	d	e	f	g	h	i'	i''	j	k	l	n	o	
alpha-Pinene	X	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
beta-Pinene	X	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6	
Pine oil	X	P	2	2G	Open	No	No	Yes	O	No	A	No	16.2.6, 16.2.9	
Polyalkyl (C18-C22) acrylate in Xylene	Y	P	3	2G	Cont	No	No	No	R	F	A	No	15.19.6, 16.2.6, 16.2.9	
Polyalkyl (C10-C20) methacrylate	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Poly(2+)cyclic aromatics	X	P	1	2G	Cont	No	No	Yes	R	No	AD	No	15.19, 16.2.6, 16.2.9	
Polyethylene glycol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No		
Polyethylene glycol dimethyl ether	Z	P	3	2G	Open	No	No	Yes	O	No	A	No		
Polyferric sulphate solution	Y	S/P	3	2G	Open	No	No	NF	O	No	No	No		
Polyisobutylamine in aliphatic (C10-C14) solvent	Y	P	3	2G	Open	No	T3	IIA	Yes	O	No	A	No	
Polyisobutyl anhydride adduct	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No		
Poly(4+)isobutylene	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.9	
Polyolefin amide alkeneamine (C17+)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6	
Polyolefin amide alkeneamine borate (C28-C250)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Polyolefinamine (C28-C250)	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	16.2.9	
Polyolefinamine in alkyl (C2-C4) benzenes	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6, 16.2.6, 16.2.9	
Polyolefinamine in aromatic solvent	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6, 16.2.6, 16.2.9	
Polyolefin anhydride	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Polyolefin ester (C28-C250)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Polyolefin phenolic amine (C28-C250)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6, 16.2.9	
Polyolefin phosphorusulphide, barium derivative (C28-C250)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	16.2.6, 16.2.9	
Poly(20)oxyethylene sorbitan monooleate	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9	
Polypropylene glycol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No		
Polysiloxane	Y	P	3	2G	Cont	No	No	No	R	F	AB	No	15.19.6, 16.2.9	
Potassium hydroxide solution	Y	S/P	3	2G	Open	No	No	NF	O	No	No	No	15.19.6	
Potassium oleate	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9	
Potassium thiosulphate (50% or less)	Y	P	3	2G	Open	No	No	NF	O	No	No	No	16.2.9	
n-Propanolamine	Y	S/P	3	2G	Open	No	No	Yes	O	No	AD	No	16.2.9, 15.19.6	
beta-Propiolactone	Y	S/P	2	2G	Cont	No	No	IIA	Yes	R	T	A	No	
Propionaldehyde	Y	S/P	3	2G	Cont	No	No	No	R	F-T	A	Yes	15.17, 15.19.6	
Propionic acid	Y	S/P	3	2G	Cont	No	T1	IIA	No	R	F	A	Yes	15.11.2, 15.11.3, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.19.6
Propionic anhydride	Y	S/P	3	2G	Cont	No	T2	IIA	Yes	R	T	A	No	

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Propionitrile	Y	S/P	2	1G	Cont	No	T1	IIB	No	C	F-T	AD	Yes	15.12, 15.17, 15.18, 15.19
n-Propyl acetate	Y	P	3	2G	Cont	No			No	R	F	AB	No	15.19.6
n-propyl alcohol	Y	P	3	2G	Cont	No			No	R	F	A	No	15.19.6
n-Propylamine	Z	S/P	2	2G	Cont	Inert	T2	IIA	No	C	F-T	AD	Yes	15.12, 15.19
Propylbenzene (all isomers)	Y	P	3	2G	Cont	No			No	R	F	A	No	15.19.6
Propylene glycol methyl ether acetate	Z	P	3	2G	Cont	No			No	R	F	A	No	
Propylene glycol monoalkyl ether	Z	P	3	2G	Cont	No			No	R	F	AB	No	
Propylene glycol phenyl ether	Z	P	3	2G	Open	No			Yes	O	No	AB	No	
Propylene oxide	Y	S/P	2	2G	Cont	Inert	T2	IIB	No	C	F-T	AC	No	15.8, 15.12.1, 15.14, 15.19
Propylene tetramer	X	P	2	2G	Cont	No			No	R	F	A	No	15.19.6
Propylene trimer	Y	P	2	2G	Cont	No			No	R	F	A	No	15.19.6
Pyridine	Y	S/P	2	2G	Cont	No	T1	IIA	No	R	F	A	No	15.19.6
Rapeseed oil (low erucic acid, containing less than 4% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Rosin	Y	P	2	2G	Open	No			Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9
Sodium aluminosilicate slurry	Z	P	3	2G	Open	No			Yes	O	No	AB	No	
Sodium benzoate	Z	P	3	2G	Open	No			Yes	O	No	A	No	
Sodium borohydride (15% or less)/Sodium hydroxide solution	Y	S/P	3	2G	Open	No			NF	O	No	No	No	15.19.6, 16.2.6, 16.2.9
Sodium carbonate solution	Z	P	3	2G	Open	No			Yes	O	No	A	No	
Sodium chlorate solution (50% or less)	Z	S/P	3	2G	Open	No			NF	O	No	No	No	15.9, 15.19.6, 16.2.9
Sodium dichromate solution (70% or less)	Y	S/P	2	2G	Open	No			NF	C	No	No	No	15.12.3, 15.19
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	Z	P	3	2G	Open	No			NF	O	No	No	No	15.19.6, 16.2.9
Sodium hydrogen sulphite solution (45% or less)	Z	S/P	3	2G	Open	No			NF	O	No	No	No	16.2.9
Sodium hydrosulphide/Ammonium sulphide solution	Y	S/P	2	2G	Cont	No			No	C	F-T	A	Yes	15.12, 15.14, 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	T	No	No	15.19.6, 16.2.9
Sodium hydroxide solution	Y	S/P	3	2G	Open	No			NF	O	No	No	No	16.2.6, 16.2.9
Sodium hypochlorite solution (15% or less)	Y	S/P	2	2G	Cont	No	-	-	-	R	No	No	No	15.19.6
Sodium nitrite solution	Y	S/P	2	2G	Open	No			NF	O	No	No	No	15.12.3.1, 15.12.3.2, 15.19, 16.2.9
Sodium silicate solution	Y	P	3	2G	Open	No			NF	O	No	No	No	16.2.9
Sodium sulphide solution (15% or less)	Y	S/P	3	2G	Cont	No			NF	C	T	No	No	15.19.6, 16.2.9
Sodium sulphite solution (25% or less)	Y	P	3	2G	Open	No			NF	O	No	No	No	15.19.6, 16.2.9
Sodium thiocyanate solution (56% or less)	Y	P	3	2G	Open	No			Yes	O	No	No	No	15.19.6, 16.2.9

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														Y
Soyabean oil (containing less than 0.5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6
Sulpholane	Y	P	3	2G	Open	No		Yes	O	No	A	No	15.19.6, 16.2.9	
Sulphonated polyacrylate solution	Z	P	3	2G	Cont	No		No	R	F	A	No		
Sulphur (molten)	Z	S	3	1G	Open	Vent or pad (gas)	T3	Yes	O	F-T	No	No	15.10, 16.2.9	
Sulphuric acid	Y	S/P	3	2G	Open	No		NF	O	No	No	No	15.11, 15.16.2., 15.19.6	
Sulphuric acid, spent	Y	S/P	3	2G	Open	No		NF	O	No	No	No	15.11, 15.16.2., 15.19.6	
Sulphurized fat (C14-C20)	Z	P	3	2G	Open	No		Yes	O	No	AB	No		
Sunflowerseed oil (containing less than 7% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6	
Tallow (containing less than 1.5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9	
Tetrachloroethane	Y	S/P	2	2G	Cont	No		NF	R	T	No	No	15.12, 15.17, 15.19.6	
Tetraethylene glycol	Z	P	3	2G	Open	No		Yes	O	No	A	No		
Tetraethylene pentamine	Y	S/P	2	2G	Open	No		Yes	O	No	A	No		
Tetrahydrofuran	Z	S	3	2G	Cont	No	T3	III B	No	R	F-T	A	No	15.19.6
Tetrahydronaphthalene	Y	P	2	2G	Open	No		Yes	O	No	A	No		
Tetramethylbenzene (all isomers)	X	P	2	2G	Open	No		Yes	O	No	A	No	16.2.9	
Titanium dioxide slurry	Z	P	3	2G	Open	No		Yes	O	No	AB	No		
Toluene	Y	P	3	2G	Cont	No		No	R	F	A	No	15.19.6	
Toluenediamine	Y	S/P	2	2G	Cont	No		Yes	C	T	AD	Yes	15.12, 15.17, 15.19, 16.2.9, 16.2.6	
Toluene diisocyanate	Y	S/P	2	2G	Cont	Dry	T1	IIA	Yes	C	F-T	A,	Yes	15.12, 15.16.2, 15.17, 15.19, 16.2.9
													C(b), D	
o-Toluidine	Y	S/P	2	2G	Cont	No		Yes	C	T	A	No	15.12, 15.17, 15.19	
Tributyl phosphate	Y	P	3	2G	Open	No		Yes	O	No	A	No	15.19.6	
1,2,3-Trichlorobenzene (molten)	X	S/P	1	2G	Cont	No		Yes	C	T	ACD	Yes	15.12.1, 15.17, 15.19, 16.2.9, 16.2.6	
1,2,4-Trichlorobenzene	X	S/P	1	2G	Cont	No		Yes	R	T	AB	No	15.19, 16.2.9	
1,1,1-Trichloroethane	Y	P	3	2G	Open	No		Yes	O	No	A	No		
1,1,2-Trichloroethane	Y	S/P	3	2G	Cont	No		NF	R	T	No	No	15.12.1, 15.19.6	
Trichloroethylene	Y	S/P	2	2G	Cont	No	T2	IIA	Yes	R	T	No	15.12, 15.17, 15.19.6	
1,2,3-Trichloropropane	Y	S/P	2	2G	Cont	No		Yes	C	T	ABD	No	15.12, 15.17, 15.19	
1,1,2-Trichloro-1,2,2-Trifluoroethane	Y	P	2	2G	Open	No		NF	O	No	No	No		
Tricresyl phosphate (containing 1% or more ortho-isomer)	Y	S/P	1	2G	Cont	No	T2	IIA	Yes	C	No	AB	No	15.12.3, 15.19, 16.2.6
Tridecane	Y	P	2	2G	Open	No		Yes	O	No	AB	No	15.19.6	

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Tridecanoic acid	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6, 16.2.9
Tridecyl acetate	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	
Triethanolamine	Z	S/P	3	2G	Open	No	IIA	Yes	O	No	A	No	16.2.9
Triethylamine	Y	S/P	2	2G	Cont	No	T2 IIA	No	R	F-T	AC	Yes	15.12, 15.19.6
Triethylbenzene	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6
Triethylenetetramine	Y	S/P	2	2G	Open	No	T2 IIA	Yes	O	No	A	No	
Triethyl phosphate	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Triethylphosphite	Z	S/P	3	2G	Cont	No	No	No	R	F-T	AB	No	15.12.1, 15.19.6, 16.2.9
Triisopropanolamine	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Trisopropylated phenyl phosphates (containing less than 1% ortho-isomer)	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6
Trimethylacetic acid	Y	S/P	3	2G	Cont	No	No	Yes	R	No	A	No	15.11.2, 15.11.3, 15.11.4, 15.11.5, 15.11.6, 15.11.7, 15.11.8, 15.19.6, 16.2.6, 16.2.9
Trimethylamine solution (30% or less)	Z	S/P	2	2G	Cont	No	No	No	C	F-T	AC	Yes	15.12, 15.14, 15.19, 16.2.9
Trimethylbenzene (all isomers)	X	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	
1,3,5-Trioxane	Y	S/P	3	2G	Cont	No	No	No	R	F	AD	No	15.19.6, 16.2.9
Tripropylene glycol	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Trixylyl phosphate	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.6
Tung oil (containing less than 2.5% free fatty acids)	Y	NA	2(k)	2G	Open	No	-	Yes	Open	No	ABC	No	15.19.6, 16.2.6, 16.2.9
Turpentine	X	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6
Undecanoic acid	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	16.2.6, 16.2.9
1-Undecene	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6
Undecyl alcohol	X	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6, 16.2.9
Urea/Ammonium nitrate solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Urea/Ammonium nitrate solution (containing aqua ammonia)	Z	S/P	3	2G	Cont	No	No	NF	R	T	A	No	16.2.9
Urea/Ammonium phosphate solution	Y	P	2	2G	Open	No	No	Yes	O	No	A	No	15.19.6
Urea solution	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Valeraldehyde (all isomers)	Y	S/P	3	2G	Cont	Inert	T3 IIB	No	R	F-T	A	No	15.4.6, 15.19.6
Vegetable protein solution (hydrolysed)	Z	P	3	2G	Open	No	No	Yes	O	No	A	No	
Vinyl acetate	Y	S/P	3	2G	Cont	No	T2 IIA	No	R	F	A	No	15.13, 15.19.6, 16.6.1, 16.6.2
Vinyl ethyl ether	Z	S/P	2	1G	Cont	Inert	T3 IIB	No	C	F-T	A	Yes	15.4, 15.13, 15.14, 15.19, 16.6.1, 16.6.2
Vinylidene chloride	Y	S/P	2	2G	Cont	Inert	T2 IIA	No	R	F-T	B	Yes	15.13, 15.14, 15.19.6, 16.6.1, 16.6.2

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Vinyl neodecanoate	Y	S/P	2	2G	Open	No	No	Yes	O	No	AB	No	15.13, 15.19.6, 16.6.1, 16.6.2
Vinytoluene	Y	S/P	2	2G	Cont	No	IIA	No	R	F	AB	No	15.13, 15.19.6, 16.6.1, 16.6.2
Waxes (Should be Petrolatum, purified)	Z	P	3	2G	Open	No	No	Yes	O	No	AB	No	
Xylenes	Y	P	2	2G	Cont	No	No	No	R	F	A	No	15.19.6 (h)
Xylenol	Y	S/P	3	2G	Open	No	IIA	Yes	O	No	AB	No	15.19.6, 16.2.9
Zinc alkaryl dithiophosphate (C7-C16)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	16.2.6, 16.2.9
Zinc alkenyl carboxamide	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6
Zinc alkyl dithiophosphate (C3-C14)	Y	P	2	2G	Open	No	No	Yes	O	No	AB	No	15.19.6, 16.2.6

Chapter 18

Product name	Pollution Category
Acetone	Z
Alcoholic beverages, n.o.s.	Z
Apple juice	OS
n-Butyl alcohol	Z
sec-Butyl alcohol	Z
Clay slurry	OS
Coal slurry	OS
Diethylene glycol	Z
Ethyl alcohol	Z
Ethylene carbonate	Z
Glucose solution	OS
Glycerine	Z
Glycerol monooleate	Z
Hexamethylenetetramine solutions	Z
Hexylene glycol	Z
Isopropyl alcohol	Z
Kaolin slurry	OS
Magnesium hydroxide slurry	Z
N-Methylglucamine solution (70% or less)	Z
Methyl propyl ketone	Z
Molasses	OS
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
Polyaluminium chloride solution	Z
Potassium formate solutions	Z
Propylene carbonate	Z
Propylene glycol	Z

Chapter 18

Product name	Pollution Category
Sodium acetate solutions	Z
Sodium sulphate solutions	Z
Tetraethyl silicate monomer/oligomer (20% in ethanol)	Z
Triethylene glycol	Z
Water	OS