Subject

Introduction of the outcomes of MEPC 52



No.TEC-0608Date22 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 in complicated for users. For the purpose of making them userfriendly, 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 reevaluated 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

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

CHAPTER 6 - RECEPTION FACILITIES

Regulation 38 Reception facilities

CHAPTER 7 - SPECIAL REQUIREMENTS FOR FIXED OR FLOATING PLATFORMS

Regulation 39 Special requirements for fixed or floating platforms

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

Regulation1	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 7Survey and certification of chemical tankersRegulation 8SurveysRegulation 9Issue 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 13Control of discharges of residues of Noxious Liquid SubstancesRegulation 14Procedures 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

	-	Citat	uapier 1/									
G.	c q	e	Ļ	60	Ч	:-]	Ĺ	¥	-	0 U
Acetic acid	Z S/	S/P	3 2G	Cont	No	F	VII	No	~	1	A Y	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/	S/P	2 2G	Cont	No	13	IIA	No	R	F-T	A V	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/	S/P 3	2 2G	Cont	No	F	VII	Yes	υ	н	۲ ۲	Yes 15.1, 15.12, 15.17, 15.18, 15.19, 16.6.1, 16.6.2, 16.6.3
Acetonitrile	Z S/P	P 2	2G	Cont	No	13	IIA	No	R	F-T	A V	No 15.12, 15.19.6
Acrylic acid	Y S/P	P 2	: 2G	Cont	No	17	IIA	No	RF	F-T	A N	No 15.13, 15.19.6, 16.6.1, 16.2.9
Acrylonitrile	Y S/P	P 2	2G	Cont	No	ц	IIB	No	C F	F-T	A Y	Yes 15.12, 15.13, 15.17, 15.19
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	ΥΡ		1 2G	Open	No			Yes	4 0	No /	AB N	No 15.19.6, 16.2.6
Adiponitrile	Z S/P	P 3	1 2G	Cont	No		IIB	Yes	Я	Т	A A	No 16.2.9
Alachlor technical (90% or more)	X S/P	P 2	2G	Open	No			Yes	0	No /	AC	No 15.19.6, 16.2.9
Alcohol (C9-C11) poly (2.5-9) ethoxylate	Y P	3	2G	Open	No			Yes	4 0	No	A	No 15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	ΥP	2	2G	Open	No			Yes	0	No	X V	No 15.19.6, 16.2.9
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	Y P	2	2G	Open	No			Yes	0	No	A A	No 15.19.6, 16.2.6, 16.2.9
Alcohol (C12-C16) poly(1-6)ethoxylates	Y P	2	2G	Open	No			Yes	0	No	V V	No 15.19.6, 16.2.9
Alcohol (C12-C16) poly(20+)ethoxylates	ΥΡ	9	2G	Open	No			Yes	0 V	No	A N	No 16.2.9
Alcohol (C12-C16) poly(7-19)ethoxylates	ΥΡ	2	2G	Open	No			Yes	0 V	No	A N	No 15.19.6, 16.2.9
Alcohols (C13+)	ΥΡ	2	2G	Open	No			Yes	и 0	No /	AB N	No 15.19.6, 16.2.9
Alkanes (C6-C9)	X P	2	2G	Cont	No			No	8	н	A N	No 15.19.6
Iso- and cyclo-alkanes (C10-C11)	Z P	3	2G	Cont	No			No	R	F	AN	No
Iso- and cyclo-alkanes (C12+)	Z P	3	2G	Cont	No			No	R	F	N N	No
n-Alkanes (C10+)	Z P	3	2G	Cont	No			No	R	F A	AB N	No
Alkenyl (C16-C20) succinic anhydride	Z S/P	Р .	2G	Cont	No			Yes	Э	Т	No Y	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	_	2G	Cont	No	E	IIA	Yes	С	T A	ABC N	No 15.12, 15.17, 15.19
Alkylated (C4-C9) hindered phenols	Y S/P	P 2	2G	Open	No	•	•	Yes (0 N	No E	BD N	No 15.19.6, 16.2.6, 16.2.9
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	Z P	3	2G	Open	No			Yes (0 N	No	A N	No 15.19.6
Alkyl (C5-C8) benzenes	X	2	2G	Open	No			Yes (0 N	No	A N	No 15.19.6
Alkyl(C9+)benzenes	Z P	3	2G	Open	No			Yes (v o	No A	AB N	No
Alkyl (C12+) dimethylamine	X S/P	-	26	Cont	No	,	,	Yes	c c	T B(BCD Y	Yes 15.12, 15.17, 15.19
Alkyl dithiocarbamate (C19-C35)	Υ	3	2G	Open	°N			Yes (N O	No A	AB N	No 15.19.6, 16.2.6, 16.2.9
Alkyldithiothiadiazole (C6-C24)	Z P	e.	2G	Open	No			Yes (N O	No A	AB N	No
	Y P	2	2G	Open	No			Yes (z o	No A	AB N	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)	ΥP	~	2G	Open	No			Yes (2 0	No N	No N	No 15.19.6, 16.2.6, 16.2.9

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Attachment 3

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Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)	× ا	۵.	ю	2G	Open	No			Yes	0	°N	°	No	16.2.9, 16.2.6
Alkyl (C8-C40) phenol sulphide	Z	٩.	۳	2G	Open	No			Yes	0	No	AB	No	
Alkyl (C8-C9) phenylamine in aromatic solvents	γ	Ч	2	2G	Cont	°Z			Ŷ	~	ц	<	No.	15.19.6
Alkyi (C9-C15) phenyl propoxylate	z	Р	3	2G	Open	No			Yes	0	No	AB	No	
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	γ	Р	3	2G	Open	No			Yes	0	No	No.	°	16.2.9, 16.2.6
Alkyl (C12-C14) polyglucoside solution (55% or less)	Y	Ρ	3	2G	Open	No			Yes	0	No	°N	ů	15.19.6, 16.2.9
Alkyl (C8-C10) polyglucoside solution (65% or less).	Y	Ρ	3	2G	Open	No			Yes	0	No	οN	ů	16.2.6
Alkyl(C10-C20, saturated and unsaturated) phosphite	γ	Ρ	2	2G	Open	No			Yes	0	No	4	°	16.2.9
Alkyl sulphonic acid ester of phenol	Y	Р	3	2G	Open	No			Yes	0	No	AB	ů	15.19.6, 16.2.6
Allyl alcohol	Y	S/P	2	2G	Cont	No	13	IB	No	ပ	F-T	¥	Yes	15.12, 15.17, 15.19
Allyl chloride	γ	S/P	2	2G	Cont	No	12	IIA	No	υ	F-T		Yes	15.12, 15.17, 15.19
Aluminium sulphate solution	γ	Р	7	2G	Open	٥N			Yes	0	°	A	ů	15.19.6
Aminoethyl ethanolamine	z	S/P	3	2G	Open	No	11	ΝI	Yes	0	٩	۲	No	
2-Amino-2-methyl-1-propanol	z	P	3	2G	Open	No			Yes	0	No	۷	°N	
Ammonia aqueous (28% or less)	Y	S/P	2	2G	Cont	No			NF	×	н	ABC	Yes	
Ammonium hydrogen phosphate solution	z	Ч	e.	2G	Open	No			Yes	0	No	<	No	
Ammonium nitrate solution (93% or less)	z	S/P	2	16	Open	No			NF	0	No	ů	å	15.2, 15.11.4, 15.11.6, 15.18, 15.19.6, 16.2.9
Ammonium polyphosphate solution	z	Р	3	2G	Open	No			Yes	0	°N0	۷	Ŷ	
Ammonium sulphate solution	z	4	e	2G	Open	No			Yes	0	No	۷	No	
Ammonium sulphide solution (45% or less)	Y	S/P	2	2G	Cont	No			No	υ	F-T	×	Yes	15.12, 15.17, 15.19, 16.6.1, 16.6.2, 16.6.3
Amyl acetate (all isomers)	Y	Ρ	3	2G	Cont	No			No	R	н	¥	No	15.19.6
n-Amyl alcohoi	z	Ч	3	2G	Cont	No			No	ч	ы	AB	٧°	
Amyl alcohol, primary	z	Ч	۳	2G	Cont	No			No	R	н	AB	ν°	
sec-Amyl alcohol	z	Ρ	3	2G	Cont	No			No	×	н	AB	ů	
tert-Amyl alcohol	z	ď	3	2G	Cont	No			No	ч	н	A	°	
tert-Amyl methyl ether	х	Ρ	2	2G	Cont	No	£		No	×	ц	¥.	No	15.19.6
Aniline	Υ	S/P	2	2G	Cont	No	E	ΠA	Yes	U	н	×	ů	15.12, 15.17, 15.19
Aryl polyolefins (C11-C50)	γ	P	2	2G	Open	No			Yes	0	No	AB	å	15.19.6, 16.2.6, 16.2.9
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	x	Р	2	2G	Cont	No			No	ч	ц	m	r	15.19.6
Barium long chain (C11-C50) alkary! sulphonate	Y	S/P	2	2G	Open	No			Yes	0	No	٩D	No	15.12.3, 15.19, 16.2.6, 16.2.9
Benzene and mixtures having 10% benzene or more (j)	×	S/P	ę	2G	Cont	٥N	F	IIA	No	с	F-T	AB	ů	15.12.1, 15.17, 15.19.6, 16.2.9
Benzenetricarboxylic acid, trioctyl ester	~	¢		0	ç				;	¢	;			

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65	c d	e	Ţ	50	Е	-	:	iI	ŗ	¥	I	0 0
Benzyl acetate	۲	P 2	2 2G	Open	No			Yes	0	No	V	No
Benzyl alcohol	Y	P 3	3 2G	Open	No			Yes	0	No	V	No
Bromochloromethane	Z S	S/P 3	3 2G	Cont	No			NF	R	н	No	No
Butyl acetate (all isomers)	Y I	P :	3 2G	Cont	No			No	~	F	V	No 15.19.6
Butyl acrylate (all isomers)	Y S	S/P	2 2G	Cont	No	11	B	No	×	F-T	V	No 15.13, 15.19.6, 16.6.1, 16.6.2
tert-Butyl alcohol	z I	P	3 2G	Cont	No			No	Я	н	V	No
Butylamine (all isomers)	Y S.	S/P 2	2 2G	Cont	No			No	2	F-T	V	Yes 15.12, 15.17, 15.19.6
Butylbenzene (all isomers)	х	P 2	2 2G	Cont	No			No	~	F	V	15.19.6
Butyl benzyl phthalate	Х	P 2	2 2G	Open	No			Yes	0	°N	V	No 15.19.6
Butyl butyrate (all isomers)	Y	P 3	3 2G	Cont	No			No	R	F	L V	No 15.19.6
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	Y S,	S/P 2	2 2G	Cont	No			Yes	R	No	AD 1	No 15.13, 16.6.1, 16.6.2, 15.19.6
Butylene glycol	Z	P	3 2G	Open	No			Yes	0	No	(V	No
l,2-Butylene oxide	۲ ۶	S/P 3	3 2G	Cont	Inert	13	B	No	ы	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/	S/P 3	3 2G	Cont	Inert	T4	B	No	2	F-T	V	No 15.4.6, 15.12, 15.19.6
Butyl methacrylate	z S/	S/P 3	3 2G	Cont	No		IIA	No	8	F-T /		No 15.13, 15.19.6, 16.6.1, 16.6.2
n-Butyl propionate	Υ	P 3	3 2G	Cont	No			No	R	н	L V	No 15.19.6
Butyraldehyde (all isomers)	Y S/	S/P 3	3 2G	Cont	No	T3	۷II	No	R	F-T	A 1	No 15.19.6
	Y S/	S/P 3	3 2G	Cont	No			Yes	R	No	A 1	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 F	P 3	3 2G	Open	No			Yes	0	No /	AB	No 15.19.6
Calcium carbonate slurry	Z F	P 3	5G	Open	No			Yes	0	No /	AB 1	No
Calcium hypochlorite solution (15% or less)	Y S/	S/P 2	2 2G	Cont	No			NF	R	No 1	No 1	No 15.19.6
Calcium hypochlorite solution (more than 15%)	X S/	S/P 1	2G	Cont	°N0			NF	R	No	No 1	No 15.19, 16.2.9
Calcium long-chain alkyl(C5-C10) phenate	Y P	3	2G	Open	No			Yes	0	No	A I	No
Calcium long-chain alkyl(C11-C40) phenate	Z P	3	2G	Open	No			Yes	0	No	Ā	No
Calcium long-chain alkyl phenate sulphide (C8-C40)	ΥP	5	2G	Open	No			Yes	0	No /	AB	No 15.19.6, 16.2.6, 16.2.9
epsilon-Caprolactam (molten or aqueous solutions)	Z P	ŝ	2G	Open	No			Yes	0	No	A A	No
Carbon disulphide	Y S/P	P 2	1G	Cont	Pad+iner t	16	IIC	No	C	F-T	с С	Yes 15.3, 15.12, 15.19
Carbon tetrachloride	Y S/P	P 2	2G	Cont	No			NF	c	L L	No J	Yes 15.12, 15.17, 15.19.6
Castor oil (containing less than 2% free fatty acids)	х И	NA 2 (k)	k) 2G	Open	No	1		Yes O	Open 7	No A	D D	No 15.19.6, 16.2.6
Cetyl/Eicosyl methacrylate mixture	Y S/P	P 2	2G	Open	No			Yes	0	No A	AD N	No 15.13, 16.6.1, 16.6.2, 15.19.6, 16.2.9

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G	υ	p	e	÷	50	Ч	:_				×	-	0 U	
Chlorinated paraffins (C10-C13)	x	•	-	2G	Open	No			Yes	0	No No	A	No 15	15.19, 16.2.6
Chloroacetic acid (80% or less)	Y	S/P	7	2G	Cont	No			NF	υ	No N	No	No 15	15.11.2, 15.11.4, 15.11.6, 15.11.7, 15.11.8, 15.12.3, 15.19, 16.2.9
Chlorobenzene	γ	S/P	2	2G	Cont	°N	11	IIA	No	Я	F-T	AB	No 15	15.19.6
Chloroform	Y	S/P	ŝ	2G	Cont	No			NF	Я	Т	No V	Yes 15	15.12, 15.19.6
Chlorohydrins (crude)	γ	S/P	2	2G	Cont	No		VII	No	0	F-T		No 15	15.12, 15.19
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	Y	Ρ	2	2G	Open	No			NF	0	No	No	No 16	16.2.9
1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one	γ	Р	2	2G	Open	No			Yes	0	No /	ABD	No 15	15.19.6, 16.2.6, 16.2.9
2- or 3-Chloropropionic acid	2	S/P	m	2G	Open	Ň			Yes	0	No	V	No 15 15	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	-	2G	Cont	No			ЧĻ	υ	F	°N No	Yes 15 15 15 15	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	Υ	S/P	2	2G	Cont	No			No No	×	F-T	AB	No 15	15.19.6
p-Chlorotoluene	Y	S/P	2	2G	Cont	No			No	R	F-T	AB 1	No 15	15.19.6, 16.2.9
Chlorotoluenes (mixed isomers)	Y	S/P	2	2G	Cont	No			No	R	F-T	AB I	No 15	15.19.6
Choline chloride solutions	Z	4	3	2G	Open	No			Yes	0	No	A I	No	
Citric acid (70% or less)	Z	Р	3	2G	Open	No			Yes	0	No	A 1	No	
Coconut oil (containing less than 5% free fatty acids)	Y	NA	2 (k)	2G	Open	No	•	ı	Yes O	Open	No A	ABC 1 D	No 15	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 O	Open	No A	ABC]	No 15	15.19.6, 16.2.6
Cotton seed oil (containing less than 12% free fatty acids)	γ	NA	2 (k)	2G	Open	No			Yes O	Open	No A	D D	No 15	15.19.6, 16.2.6, 16.2.9
Cresols (all isomers)	Υ	S/P	2	2G	Open	No	Ц	ΠA	Yes	0	No	AB	No 15	15.19.6, 16.2.9
Cresylic acid, dephenolized	Y	S/P	2	2G	Open	No			Yes	0	No	AB	No 15	15.19.6
Crotonaldehyde	Y	S/P	2	2G	Cont	No	£	IIB	No	R	F-T	A I	Yes 15	15.12, 15.17, 15.19.6
1,5,9-Cyclododecatriene	х	S/P	-	2G	Cont	No			Yes	ж	т	A	No 15	15.13, 15.19, 16.6.1, 16.6.2
Cycloheptane	x	4	2	2G	Cont	No			No	R	F	A]	No 15	15.19.6
Cyclohexane	Υ	Ч	2	2G	Cont	νo			No	R	F	A 1	No 15	15.19.6, 16.2.9
Cyclohexanol	Y	Ρ	2	2G	Open	No			Yes	0	No	AB	No 15	15.19.6, 16.2.9
Cyclohexanone	Z	S/P	3	2G	Cont	No	13	IIA	No	Я	F-T	A I	No 15	15.19.6
Cyclohexanone, Cyclohexanol mixture	Y	S/P	3	2G	Cont	No			Yes	R	F-T	A 1	No	
Cyclohexyl acetate	Y	٩	æ	2G	Cont	No			No	R	F	A 1	No 15	15.19.6
Cyclohexylamine	Y	S/P	б	2G	Cont	No	£	IIA	No	R	F-T ,	AC 1	No 15	15.19.6
1,3-Cyclopentadiene dimer (molten)	Y	Р	2	2G	Cont	No			No	R	ц	A V	No 15	15.19.6, 16.2.6, 16.2.9

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Cyclopentane Y	Р	2	2G	Cont	No			No R	ш	V	Ŷ	15.19.6
Cyclopentene Y	Р	2	2G	Cont	No			No R	<u>ц</u>	V	No	15.19.6
p-Cymene Y	Ρ	2	2G	Cont	No			No R	ц	A	No	15.19.6
Decahydronaphthalene	P	2	2G	Cont	No		2	No R	<u>Г</u> .	AB	No No	15.19.6
Decanoic acid X	Р	2	2G	Open	No No			Yes 0	No	V V	No No	16.2.9
Decyl acrylate X	S/P	1	2G	Open	No	1 EL	IIA Y	Yes O	No	ACD	D No	15.13, 15.19, 16.6.1, 16.6.2
Decyl alcohol (all isomers) Y	Ρ	2	2G	Open	No No		Y	Yes O	No	V	No	15.19.6, 16.2.9(e)
Diacetone alcohol Z	Ρ	3	2G	Cont	No			No R	. Ц.	V	No	
Dialkyl (C8-C9) diphenylamines	Ρ	3	2G	Open	No		Y	Yes 0	No	AB	°N N	
Dialky! (C7-C13) phthalates X	Ρ	2	2G	Open	No		X	Yes 0	°N N	AB	No	15.19.6, 16.2.6
Dibromomethane	S/P	2	2G	Cont	No			NF R		No	°N N	15.12.3, 15.19
Dibutylamine	S/P	я	2G	Cont	No	12	IIA N	No R	F-T	r ACD	°N O	15.19.6
Dibutyl hydrogen phosphonate Y	P	3	2G	Open	No		Y	Yes O	No	A	No	15.19.6, 16.2.9
Dibutyl phthalate X	Ρ	2	2G	Open	No		¥	Yes O	No	V	Ň	15.19.6
Dichlorobenzene (all isomers) X	S/P	2	2G	Cont]	No	п	IIA Y	Yes R	T	ABD	D No	15.19.6
3,4-Dichloro-I-butene Y	S/P	2	2G	Cont	No		z	No C	F-T	r ABC	C Yes	15.12.3, 15.17, 15.19.6
Dichloroethyl ether Y	S/P	2	2G	Cont	No	12	IIA N	No R	F-T	L A	No	15.19.6
2,2'-Dichloroisopropyl ether Y	S/P	2	2G	Cont]	No	-	Y	Yes R	н	ACD	°N O	15.12, 15.17, 15.19
2,4-Dichlorophenol	S/P	2	2G	Cont I	Dry		Y	Yes R	T	A	No	15.19.6, 16.2.6, 16.2.9
1,1-Dichloropropane Y	S/P	2	2G	Cont]	No		Z	No R	F-T	r AB	No	15.12, 15.19.6
1,2-Dichloropropane Y	S/P	2	2G	Cont]	L ON	TI	IIA N	No R	F-T	r AB	No	15.12, 15.19.6
1,3-Dichloropropene X	S/P	2	2G	Cont	No J	T2 II	IIA N	No C	F-T	r AB	Yes	15.12, 15.17, 15.18, 15.19
Dichloropropene/Dichloropropane mixtures X	S/P	2	2G	Cont	No		Z	No C	F-T	r ABD) Yes	15.12, 15.17, 15.18, 15.19
Diethanolamine Y	S/P	3	2G	Open]	No J	п п	IIA Y	Yes 0	No	Α	No	16.2.6, 16.2.9
Diethylamine Y	S/P	3	2G	Cont	No J	T2 II	IIA N	No R	F-T	L A	Yes	15.12, 15.19.6
Diethylaminoethanol Y	S/P	2	2G	Cont	No J	T2 II	IIA N	No R	F-T	r ac	No	15.19.6
Diethylbenzene Y	P	2	2G	Cont]	No		Z	No R	F	A	No	15.19.6
Diethylenetriamine	S/P	3	2G	Open 1	L ON	T2 II	ΠΑ Υ	Yes 0	No	۲	No	
Diethyl ether Z	S/P	2	IG	Cont Ir	Inert 1	T4 I	IIB N	No C	F-T	V	Yes	15.4, 15.14, 15.19
Di-(2-ethylhexyl) adipate Y	Ч	7	2G	Open 1	No		Y	Yes O	No	AB	No	15.19.6
Diethyl phthalate Y	Ρ	2	2G	Open 1	No		Y	Yes O	No	V	No	
Diethyl sulphate Y	S/P	2	2G	Cont 1	No		Y	Yes C	Т	A	No	15.19.6
Diheptyl phthalate Y	٩.	2	2G	Open 1	No N		Å	Yes 0	No	AB	No	15.19.6

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Di-n-hexyl adipate	x	Ρ	1 2G	Open	°N			Yes	0	No	V	No 15.19
Dihexyl phthalate	γ	Р	2 2G	Open	No			Yes	и 0	No A	AB N	No 15.19.6
Diisobutylamine	Υŝ	S/P	2 2G	Cont	No			No	RF	F-T A	ACD N	No 15.12.3, 15.19.6
Diisobutylene	Y	Р	2 2G	Cont	ν°			No	8	- -	A A	No 15.19.6
Diisobutyl ketone	Y	Ь	3 2G	Cont	No			No	R	н	A A	No 15.19.6
Diisobutyl phthalate	x	P	2 2G	Open	No			Yes	v 0	No	A	No 15.19.6
Diisooctyl phthalate	Y	Ь	2 2G	Open	No			Yes	v o	No A	AB N	No 15.19.6, 16.2.6
Diisopropanolamine	z S	S/P	3 2G	Open	No	5	IIA	Yes	2 0	No ,	A	No 16.2.9
Diisopropylamine	Y S	S/P	2 2G	Cont	No	1	ШA	No	CF	F-T ,	A Y	Yes 15.12, 15.19
Diisopropylbenzene (all isomers)	x	Ь	2 2G	Open	No			Yes	2 0	No	A	No 15.19.6
N,N-Dimethylacetamide	z s	S/P	3 2G	Cont	No				0			No 15.12, 15.17
N,N-Dimethylacetamide solution (40% or less)	z s	S/P	3 2G	Cont	No			Yes	R	г	B	No 15.12.1, 15.17
Dimethyl adipate	x	Р	2 2G	Open	No			Yes	v o	No	V V	No 15.19.6, 16.2.9
Dimethylamine solution (45% or less)	Y S	S/P	3 2G	Cont	No	11	IIA	No No	R	F-T A(ACD N	No 15.12, 15.19.6
Dimethylamine solution (greater than 45% but not greater than 55%)	Υs	S/P	2 2G	Cont	No			No	C F	F-T A(ACD Y	Yes 15.12, 15.17, 15.19
Dimethylamine solution (greater than 55% but not greater than 65%)	ΥS	S/P	2 2G	Cont	No			No	CF	F-T A(ACD Y	Yes 15.12, 15.14, 15.17, 15.19
N,N-Dimethylcyclohexylamine	Υs	S/P	2 2G	Cont	No			No	R F.	F-T A	AC N	No 15.12, 15.17, 15.19.6
Dimethyl disulphide	Y S	S/P	2 2G	Cont	No	ET	IIA	No	RF	F-T 1	R B	No 15.12.3, 15.12.4, 15.19.6
N,N-Dimethyldodecylamine	x s	S/P	1 2G	Open	No			Yes (0 No		В	No 15.19
Dimethylethanolamine	Y S	S/P	3 2G	Cont	No	£	IIA	No	RF	F-T A	AD N	No 15.19.6
Dimethylformamide	Y S	S/P	3 2G	Cont	No	12	IIA	No	RF	F-T A	AD N	No 15.19.6
Dimethyl glutarate	Y	Ъ	3 2G	Open	No			Yes (0 No		A N	No
Dimethyl hydrogen phosphite	ΥS	S/P	3 2G	Cont	No			Yes	R 7	T A	AD N	No 15.12.1, 15.19.6
Dimethyl octanoic acid	Y	Р	2 2G	Open	No			Yes (0 No		A N	No 16.2.9, 16.2.6
Dimethyl phthalate	Y	Р	3 2G	Open	No			Yes (0 No		N N	No 16.2.9
Dimethylpolysiloxane	Y	P	3 2G	Open	No			Yes (0 No		AB N	No 15.19.6
2,2-Dimethylpropane-1,3-diol (molten or solution)	z	P	3 2G	Open	No			Yes (0 No		AB No	0
Dimethyl succinate	Y	P	3 2G	Open	No			Yes (0 No		N N	No 16.2.9
Dinitrotoluene (molten)	x s	S/P	2 2G	Cont	No			Yes	ч С		V	No 15.12, 15.17, 15.19, 15.21, 16.6.4, 16.2.6, 16.2.9
Dioctyl phthalate	×	L L	2 2G	Open	No			Yes (0 No		AB N	No 15.19.6
1,4-Dioxane	Y S	S/P	2 2G	Cont	No	12	IIB	No	C F.	F-T A		No 15.12, 15.19, 16.2.9
Dipentene	Y	P :	3 2G	Cont	No			No	RF	Y ,		No 15.19.6
Diphenyl	x	P	2 2G	Open	No			Yes (0 No			No 15.19.6, 16.2.6, 16.2.9
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R	J	р	e f	50	ч		1	I	•	k	-	E	0
Diphenyl/Diphenyl ether mixtures	×	4	2 2G	Open	No			Yes	0	No No	в	°	15.19.6, 16.2.9
Diphenyl ether	×	Ч	2 2G	Open	No			Yes	0	No	<	°N	15.19.6, 16.2.9
Diphenyl ether/Diphenyl phenyl ether mixture	х	Ь	2 2G	Open	No			Yes	0	°	A	°N	15.19.6, 16.2.9
Diphenylol propane-epichlorohydrin resins	x	P	2 2G	Open	No			Yes	0	No	A	°	15.19.6, 16.2.6, 16.2.9
Di-n-propylamine	γ	S/P	2 2G	Cont	No			Ŷ	~	F-T	۷	ů	15.12.3, 15.19.6
Dipropylene glycol	Z	Ρ	3 2G	Open	No			Yes	0	Ŷ	A	°	
Dithiocarbamate ester (C7-C35)	x	P	2 2G	Open	No			Yes	0	°N0	AD	°N	15.19.6, 16.2.9
Diundecyl phthalate	Υ	Ρ	2 2G	Open	No			Yes	0	No	AB	No	15.19.6, 16.2.6, 16.2.9
Dodecane (all isomers)	Y	Ρ	2 2G	Cont	No			No	ч	ц	AB	°N N	15.19.6
tert-Dodecanethiol	x	S/P	1 2G	Cont	No	п	•	Yes	U	н	ABD	Yes	15.12, 15.17, 15.19
Dodecene (all isomers)	х	Р	2 2G	Open	No			Yes	0	No	A	No	15.19.6
Dodecyl alcohol	Y	Ρ	2 2G	Open	No			Yes	0	ů	A	Ŷ	15.19.6, 16.2.9
Dodecylbenzene	z	Ь	3 2G	Open	No			Yes	0	°N	AB	°N	
Dodecyl hydroxypropyl sulphide	х	Р	2 2G	Open	No			Yes	0	°N	<	°	15.19.6
Dodecyl methacrylate	z	S/P	3 2G	Open	No			Yes	0	No	۲	No	15.13
Dodecyl/Octadecyl methacrylate (mixture)	Z	S/P	3 2G	Open	No			Yes	×	No	AD	No	15.13, 16.6.1, 16.6.2
Dodecyl/Pentadecyl methacrylate mixture	Y	S/P	2 2G	Open	No			Yes	0	No	AD	°N N	15.13, 16.6.1, 16.6.2, 15.19.6
Dodecyl phenol	x	Ь	2 2G	Open	No			Yes	0	No	<	°N	15.19.6, 16.2.6
Dodecyl Xylene	Υ	Р	2 2G	Open	No			Yes	0	No	AB	ů	15.19.6, 16.2.6
Drilling brines (containing Zinc salts)	x	Ы	2 2G	Open	No			Yes	0	Ŷ	Ŷ	°N	15.19.6
Drilling brines, including:calcium bromide solution, calcium chloride solution and sodium chloride solutions solution	z	Р	3 2G	Open	No			Yes	0	Ň	<	°N	
Epichlorohydrin	Y	S/P	2 2G	Cont	No		E	°N	U	F-T	A	Yes	15.12, 15.17, 15.19
Ethanolamine	Y	S/P	3 2G	Open	No	12	IIA	Yes	0	F-T	۷	°2	16.2.9
2-Ethoxyethyl acctate	۲	Ч	3 2G	Cont	No			No	R	F	۷	No	15.19.6
Ethoxylated long chain (C16+) alkyloxyalkylamine	Z	Р	3 2G	Open	No			Yes	0	No	AB	No	
Ethyl acctate	z	Ρ	3 2G	Cont	No			No	ж	ц	AB	No	
Ethyl acetoacetate	z	Р	3 2G	Open	No			Yes	0	ů	۷	°N0	
Ethyl actylate	Y	S/P	2 2G	Cont	No	72	IIB	No	ч	F-T	۷	Yes	15.13, 15.19.6, 16.6.1, 16.6.2
Ethylamine	Y	S/P	2 IG	Cont	No	13	ΗA	No	C	F-T	сD	Yes	15.12, 15.14, 15.19.6
Ethylamine solutions (72% or less)	۲	S/P	2 2G	Cont	No			No	С	F-T	AC	Yes	15.12, 15.14, 15.17, 15.19
Ethylbcnzene	۲	Ь	2 2G	Cont	No			No	R	F	A	No	15.19.6
Ethyl tert-butyl ether	۲	P	3 2G	Cont	No			No	Я	F	A	Ŷ	15.19.6
Ethylcyclohexane	Y	Ь	2 2G	Cont	No			No	~	ы	۷	No	15.19.6

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65	J	p	e f	-	g H	:-			,	¥	I	E	0
N-Ethylcyclohexylamine	۲.	S/P	2 2	2G C	Cont No			No	×	F-T	V	No	15.19.6
S-Ethyl dipropylthiocarbamate	٢	<u>م</u>	2	20 0	Open No			Yes	0	No	۲	No	16.2.9
Ethylene chlorohydrin	۲	S/P	2	2G C	Cont No	12	IIA	No No	U	F-T	AD	Yes	15.12, 15.17, 15.19
Ethylene cyanohydrin	Υ	S/P	3 2	2G O	Open No		B	3 Yes	0	No	×	No	
Ethylenediamine	Y	S/P	2 2	2G C	Cont No	11	ΝI	No No	Я	F-T	<	٩	15.19.6, 16.2.9
Ethylene dibromide	γ	S/P	2 2	2G C	Cont No				U	Т	No	Yes	15.12, 15.19.6, 16.2.9
Ethylene dichloride	Y	S/P	2 2		Cont No	, T2	IIA		2	F-T	AB	No	15.19
Ethylene glycol	Υ	Р	3 2	2G O _l	Open No			Yes	0	ů	V	No	15.19.6
Ethylene glycol butyl ether acetate	Υ	Ρ	3 20	2G OI	Open No	<u>,</u>		Yes	0	ů	V	°N	
Ethylene glycol diacetate	Y	Ь	3 2(2G OI	Open No			Yes	0	No	A	No	
Ethylene oxide/Propylene oxide mixture with an Ethylene oxide content of not more than 30% by mass	Y	S/P	2 10	1G C	Cont Inert	н T2	IIB	3 No	C	F-T	AC	No	15.8, 15.12, 15.14, 15.19
Ethyl-3-ethoxypropionate	Y	Ρ	3 2(2G C	Cont No			No	R	No	۲	ν°	15.19.6
2-Ethylhexanoic acid	γ	Ρ	3 2(2G OI	Open No			Yes	0	ů	AB	°N N	15.19.6
2-Ethylhexyl acrylate	Y	S/P	3 20	2G OI	Open No	13	IIB	3 Yes	0	No	۲	No	15.13, 15.19.6, 16.6.1, 16.6.2
2-Ethylhexylamine	Y	S/P	2 2(2G Ci	Cont No			No	R	F-T	A	No	15.12, 15.19.6
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol, C8-C10 ester	Y	Р	2 2(2G OI	Open No			Yes	0	°N0	AB		15.19.6, 16.2.6, 16.2.9
Ethylidene norbornene	γ	S/P	2 2(2G Ci	Cont No			No	Я	F-T	AD	Ν°	15.12.1, 15.19.6
Ethyl methacrylate	Υ	S/P	3 20	2G C	Cont No		ΝI	No No	ж	F-T	AD	No	15.13, 15.19.6, 16.6.1, 16.6.2
N-Ethylmethylallylamine	Y	S/P	2 2G		Cont No	17	IIB	No No	U	н	AC	Yes	15.12.3, 15.17, 15.19
2-Ethyl-3-propylacrolein	Υ	S/P	3 2G		Cont No		IIA	No No	Я	F-T	A	No	15.19.6, 16.2.9
para-Ethyi Toluene	Y	Ъ	2 2(2G C(Cont No			No	R	н	A	Ň	15.19.6
Fatty acid (saturated C13+)	Y	Ρ	2 2G		Open No			Yes	0	No	AB	No	15.19.6, 16.2.9
Fatty acide, essentially linear,C6-C18, 2-ethylhexyl ester.	Υ	P	2 2G		Open No			Yes	0	No	AB	No	15.19.6
Ferric chloride solutions	Y	S/P	3 2G		Open No			NF	0	No	No	No	15.11, 15.19.6, 16.2.9
Ferric nitrate/Nitric acid solution	Y	S/P	2 2G		Cont No			NF	R	H	Ň	Yes	15.11, 15.19
Fish oil (containing less than 4% free fatty acids)	¥	NA	2 (k) 2G		Open No	,	'	Yes	Open	No	ABC	NON	15.19.6, 16.2.6, 16.2.9
Formaldehyde solutions (45% or less)	Y	S/P	3 2G		Cont No	12	IIB	No No	×	F-T	A	Yes	15.19.6, 16.2.9
Formannide	Y	Ч	3 2G		Open No			Yes	0	No	A	No	15.19.6, 16.2.9
Formic acid	Y	S/P	3 2G		Cont No	F	IIA	No No	R	T(g)	۷	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	IIB	s No	Ж	F-T	۷	No	15.19.6
Furfuryl alcohol	۲	Ч	3 2G		Open No	_		Yes	0	No	A	No	
Glutaraldehyde solutions (50% or less)	Y	S/P	3 2G		Open No			NF	0	No	No	No	15.19.6

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Glyceryl triacetate	Z	۵.	3	2G (Open	No		Yes	s 0	No	AB	٥N	
Glycidyl ester of C10 trialkylacetic acid	γ	Ч	2	2G (Open 1	No		Yes	s 0	Ŷ	V	Ŷ	15.19.6
Glycine, sodium salt solution	Z	Ч	ñ	2G (Open 1	No		Yes	s 0	No		No	
Glycolic acid solution (70% or less)	Z	S/P	m	2G (Open 1	No		NF	0	No	°N N	°N N	15.19.6, 16.2.9
Glyoxal solution (40% or less)	γ	Р	3	2G (Open 1	No		Yes	s 0	No	۲	°	15.19.6, 16.2.9
Glyphosate solution (not containing surfactant)	Y	Ρ	2	2G (Open 1	No		Yes	s 0	No		No	15.19.6, 16.2.9
Groundnut oil (containing less than 4% free fatty acids)	Y	NA	2 (k)	2G (Open	No	,	Yes	s Open	no No	ABC	No.	15.19.6, 16.2.6, 16.2.9
Heptane (all isomers)	×	P	5	2G	Cont 1	No		No	8	1			15.19.6, 16.2.9
n-Heptanoic acid	Z	Р	3	2G (Open 1	No		Yes		No		No	
Heptanol (all isomers) (d)	Y	ď		2G (No		No	R	ц	A	No	15.19.6
Heptene (all isomers)	Y	Р	3	2G (Cont 1	No		No	R	ц	A	No	15.19.6
Heptyl acetate	Y	Р	2	2G (Open 1	No		Yes	° 0	No	¥	No	15.19.6
1-HexadecyInaphthalene / 1,4-bis(hexadecyI)naphthalene mixture	γ	Ρ	2	2G (Open 1	No		Yes	s 0	Ň	AB	No	15.19.6, 16.2.6
Hexamethylenediamine adipate (50% in water)	2	Ρ	3	2G (Open 1	No		Yes	s 0	No	Υ	No	
Hexamethylenediamine (molten)	γ	S/P	2	2G (Cont 1	No		Yes	s C	Т	U	Yes	15.12, 15.17, 15.18, 15.19.6, 16.2.9
Hexamethylenediamine solution	Y	S/P	3	2G (Cont 1	No		Yes	s R	Т	A	No	15.19.6
Hexamethylene diisocyanate	Y	S/P	7	16	Cont	Dry T	TI IIB	3 Yes	s C	÷	A, C(b),	Yes	15.12, 15.17, 15.16.2, 15.18, 15.19
Hexamethylene glycol	Z	4	5	2G (Open N	°N		Yes	0	٩		ů	
Hexamethyleneimine	Y	S/P	5	2G (Cont 7	No		No	R	F-T	AC	°N N	15.19.6
Hexane (all isomers)	λ	Ч	5	2G (Cont 1	No		Ň	8	Ľ	V		15.19.6
1,6-Hexanediol, distillation overheads	Y	S/P	3	2G (Cont	No		Yes	s R	T	ABC	No	15.12.3, 15.12.4, 15.19.6, 16.2.9
Hexanoic acid	Y	Ρ	3	2G (Open	No		Yes	s 0	No	AB	No	15.19.6
Hexanol	Y	Р	3	2G (Open	No		Yes	s 0	No	AB	No	15.19.6
Hexene (all isomers)	Y	Ρ	3	2G (Cont 1	No		No	R	н	A	No	15.19.6
Hexyl acetate	Y	Ρ	2	2G (Cont N	No		°N0	R	ц	۲	Ŷ	15.19.6
Hydrochloric acid	Z	S/P	3	1G (Cont N	No		NF	R	F	No	Yes	15.11
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	Y	S/P	2	2G (Cont	No		NF	C C	No	No	No	15.5.1, 15.19.6
2-Hydroxyethyl acrylate	Y	S/P	5	2G (Cont	No		Yes	s C	Т	A	No	15.12, 15.13, 15.19.6, 16.6.1, 16.6.2
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	Y	٩.	e.	2G (Open	No		Yes	s 0	No	A	No	15.19.6
2-Hydroxy-4-(methylthio)butanoic acid	z	٩	۳ ۳	2G (Open N	No		Yes	° °	No	A	No	
Isoamyi alcohol	z	٩	3	2G (Cont N	No		No	R	ц	AB	No	

		-										
œ	с Э	d e	L	50	Ч	:			jk	Γ	u	0
Isobutyl alcohol	Z	Ρ	3 2G	Cont	No			No	RF	AB	3 No	
Isobuty! formate	z	P	3 2G	Cont	No			No	R F	AB	3 No	
lsobutyl methacrylate	z s	S/P	3 2G	Cont	No		IIA	No	C F-T	T BD) Yes	s 15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
Isophorone	Y S	S/P	3 2G	Cont	No			Yes	R No	A (No	
Isophoronediamine	Y S	S/P	3 2G	Cont	No			Yes	R T	Α	No	0 16.2.9
Isophorone diisocyanate	x s	S/P	2 2G	Cont	Dry			Yes	с т	ABD	D No	0 15.12, 15.16.2, 15.17, 15.19.6
Isoprene	Y S	S/P	3 2G	Cont	No	£	IIB	No	R F	В	No	0 15.13, 15.14, 15.19.6, 16.6.1, 16.6.2
Isopropanolamine	Y S	S/P	3 2G	Open	No	12	IIA	Yes (0 F-T	r a	No	0 16.2.9, 15.19.6, 16.2.6
Isopropyl acetate	Z	P	3 2G	Cont	No			No	RF	AB	3 No	
Isopropylamine	Y S	S/P	2 2G	Cont	No	T2	IIA	No	C F-T	r CD) Yes	s 15.12, 15.14, 15.19
Isopropylcyclohexane	Y	Ь	2 2G	Cont	No			No	RF	A	No	0 15.19.6, 16.2.9
Isopropyl ether	Y S	S/P	3 2G	Cont	Inert							0 15.4.6, 15.13.3, 15.19.6
Lactic acid	Z	Ρ	3 2G	Open	No			Yes (0 No	A (No	
Lactonitrile solution (80% or less)	Y S	S/P	2 1G	Cont	No			Yes	С	ACD	D Yes	s 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	2 (k) 2G	Open	No	i i		Yes O _l	Open No	D D	C No	0 15.19.6, 16.2.6, 16.2.9
Lauric acid	x	P	2 2G	Open	No			Yes (0 No	A (No	0 15.19.6, 16.2.6, 16.2.9
Linseed oil (containing less than 2% free fatty acids)	YN	NA 2	2 (k) 2G	Open	No	ı	1	Yes O _I	Open No) ABC D	C No	0 15.19.6, 16.2.6
Liquid chemical wastes	X S	S/P	2 2G	Cont	No			No	C F-T	Γ A	E	15.12, 15.19.6, 20.5.1
Long-chain alkaryl polyether (C11-C20)	Y	Ρ	2 2G	Open	No		. •	Yes (0 No	AB	3 No	0 16.2.6, 16.2.9
L-Lysine solution (60% or less)	Z	Р	3 2G	Open	No			Yes (0 No	V (No	
Magnesium chloride solution	Z	Р	3 2G	Open	No			Yes (0 No	A	No	
Maleic anhydride	Y S	S/P	3 2G	Cont	No			Yes	R No	, А, С(f)	0 No	0 16.2.9
Mercaptobenzothiazol, sodium salt solution	x	S/P	2 2G	Open	No			NF	0 No	No No	o No	15.19.6, 16.2.9
Mesityl oxide	Z S	S/P	3 2G	Cont	No	12	IIB	No	R F-T	F A	No	15.19.6
Metam sodium solution	x s	S/P	1 2G	Open	No			NF (0 No	No No	oN c	15.19, 16.2.9
Methacrylic acid	Y S	S/P	3 2G	Cont	No			Yes	R T	Α	No	15.13, 16.6.1, 15.19.6, 16.2.9
Methacrylic resin in Ethylene dichloride	Y S	S/P	2 2G	Cont	No	13	IIA	No I	R F-T	Γ AB	3 No	15.19, 16.2.9
Methacrylonitrile	ΥS	S/P	2 2G	Cont	No			No (C F-T	Г А	Yes	s 15.12, 15.13, 15.17, 15.19
3-Methoxy-1-butanol	z	L L	3 2G	Cont	No			No J	R F	A	No	
3-Methoxybutyl acetate	۲	L.	3 2G	Open	No		,	Yes (0 No	AB	3 No	0 15.19.6
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide	×		1 2G	Open	No			Yes (0 N0	A	No	15.19, 16.2.6

5	c c	¢	ł	540	ч	i.	I	-	×	1	a	0
Methyl acetate	Z P	۳ ۳	2G	Cont	°N		No	R	ш	V	No	
Methyl acetoacetate	Z P		2G	Open	No		Yes	0	Ŷ	V	No	0
Methyl acrylate	γ S/P	P 2	2G	Cont	ν°	TI IIB	No	8	F-T	V V	Yes	s 15.13, 15.19.6, 16.6.1, 16.6.2
Methyl alcohol	Y P	3	2G	Cont	No		No	8	1	V	No No	o 15.19.6
Methylamine solutions (42% or less)	Y S/P	P 2	2G	Cont	No		°N		F-T	, ACD) Yes	s 15.12, 15.17, 15.19
Methylamyl acetate	Y P	2	2G	Cont	No		ů	R	н	A	No	o 15.19.6
Methylamyl alcohol	Z P		2G	Cont	No		ů	8	ч	A	No	o 15.19.6
Methyl anyl ketone	Z P	m	26	Cont	No		No	R	Ľ	A I	°N	0 15.19.6
Methylbutenol	Y		26	Cont	No		No	8	Ч		°N	0 15.19.6, 16.2.9
Methyl tert-butyl ether	Z P	3	2G	Cont	No		°N	R R	ц	AB	°N N	
Methyl butyl ketone	Y P		2G	Cont	No		No	8	ц	AB	Ň	0.15.19.6
Methylbutynol	Z P	3	2G	Cont	No		No	8	ц	A	No	
Methyl butyrate	Υ P	3	2G	Cont	No		Ŷ	R	щ	V	No	0 15.19.6
Methylcyclohexane	Y P	2	2G	Cont	No		°N N	R	14	A	No	0 15.19.6
Methylcyclopentadiene dimer	Y P	2	2G	Cont	No		No	, R	н	В	No	15.19.6
Methylcyclopentadienyl manganese tricarbonyl	X S/P	P 1	16	Cont	No	•	Yes	s C	Т	ABC	C Yes	s 15.12, 15.18, 15.19, 16.2.9
Methyl diethanolamine	Y S/P	P 3	2G	Open	No		Yes	s 0	No	A	No	0 16.2.6
2-Methyl-6-ethyl aniline	Y S/P	P 3	2G	Open	No		Yes	s 0	No	AD	Ň	
Methyl ethyl ketone	Z P	3	2G	Cont	No		No	R	ц	V	No	
2-Methyl-5-ethyl pyridine	Y S/P	P 3	2G	Open	No	AII	Yes	s 0	No	AD	No	15.19.6
Methyl formate	Z S/P	P 2	2G	Cont	No		No	, R	F-T	V .	Yes	s 15.12, 15.14, 15.19
2-Methyl-2-hydroxy-3-butyne	Z S/P	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	R	F	AB	No	
Methyl methacrylate	Y S/P	P 2	2G	Cont	No	T2 IIA	No	R	F-T	V.	No	0 15.13, 15.19.6, 16.6.1, 16.6.2
3-Methyl-3-methoxybutanol	Z P	3	2G	Open	No		Yes	s 0	No	۲	No	
Methyl naphthalene (molten)	X S/P	P 2	2G	Cont	No		Yes	s R	No	AD	No	15.19.6
2-Methylpyridine	Z S/P	P 2	2G	Cont	No		No	U C	н	۷	No	0 15.12.3, 15.19.6
3-Methylpyridine	Z S/P	P 2	2G	Cont	No		No	C C	F	AC	No	0 15.12.3, 15.19
4-Methylpyridine	Z S/P	P 2	2G	Cont	No		No	, c	F-T	۷	No	15.12.3, 15.19, 16.2.9
N-Methyl-2-pyrrolidone Y	P P	3	2G	Open	No		Yes	s 0	No	A	No	15.19.6
Methyl salicylate Y	P	б	2G	Open	No		Yes	0	No	Α	No	0 15.19.6
alpha-Methylstyrene Y	/ S/P	P 2	2G	Cont	No	TI IIB	No	R	F-T	A,D(j)	j No	0 15.13, 15.19.6, 16.6.1, 16.6.2

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3-(methylthio)propionaldehyde	Y S/P	P 2	2G	Cont	°N0	г	IIA	Yes	U	н	BC	Yes	15.12, 15.17, 15.19
Morpholine	Y S/P	P 3	2G	Cont	No	12	ΠA	No	Я	ш	۲	°N	15.19.6
Motor fuel anti-knock compounds (containing lead alkyls)	X S/P	P I	IG	Cont	No	T 4	ΝI	No	υ	F-T	AC	Yes	15.6, 15.12, 15.18, 15.19
Naphthalene (molten)	X S/P	P 2	2G	Cont	No	F	ΝI	Yes	ч	°N N	AD	°N	15.19.6, 16.2.9
Neodecanoic acid	Y P	2	2G	Open	No			Yes	0	No	۷	No N	
Nitrating acid (mixture of sulphuric and nitric acids)	Υ S/P	P 2	2G	Cont	No			NF	υ	н	No	Yes	15.11, 15.16.2, 15.17, 15.19
Nitric acid (70% and over)	Y S/P	P 2	2G	Cont	No			NF	С	T	No	Yes	15.11, 15.19
Nitric acid (less than 70%)	Y S/P	P 2	2G	Cont	No			NF	Я	÷	No	Yes	15.11, 15.19
Nitrilotriacetic acid, trisodium salt solution	γ P	3	2G	Open	No			Yes	0	No	۲	No	15.19.6
Nitrobenzene	Y S/P	P 2	2G	Cont	No	Ц	ΝI	Yes	υ	н	AD	No.	15.12, 15.17, 15.18, 15.19, 16.2.9
Nitroethane	Y S/P	P 3	2G	Cont	No		IIB	No	~	F-T	A(f)	°N N	15.19.6, 16.6.1, 16.6.2, 16.6.4
Nitroethane(80%)/ Nitropropane(20%)	Y S/P	P 3	2G	Cont	No		IIB	No	ч	F-T	A(f)	°z	15.19.6, 16.6.1, 16.6.2, 16.6.3
u)	Y S/P	P 2	2G	Cont	No			Yes	U	Т	AD	ů	15.12, 15.19.6, 16.2.6, 16.2.9
1- or 2-Nitropropane	Y S/P	Ρ 3	2G	Cont	No	12	ΠB	No	R	F-T	A	°N0	15.19.6
Nitropropane (60%)/Nitroethane (40%) mixture	Y S/P	P 3	2G	Cont	No			No	×	F-T	A(f)	°Z	15.19.6
Nonane (all isomers)	X P	2	2G	Cont	No			No	R	ц	BC		15.19.6
Nonanoic acid (all isomers)	Y P	3	2G	Open	No			Yes	0	No	AB	No	15.19.6, 16.2.9
Nonene (all isomers)	Y P	2	2G	Cont	No			No	R	ц	A	°N N	15.19.6
Nonyl alcohol (all isomers)	γ p	2	2G	Open	No			Yes	0	No	A	No	15.19.6
Nonyl methacrylate monomer	γ P	2	2G	Open	No			Yes	0	No	AB	°N0	15.19.6, 16.2.9
Nonylphenoi	X P	1	2G	Open	No			Yes	0	No	V	No	15.19, 16.2.6, 16.2.9
Noxious liquid, NF, (1) n.o.s. (trade name, contains) ST1, Cat. X	ХР	-	2G	Open	No	•	, I	Yes	0	No	A	No	15.19, 16.2.6
Noxious liquid, F, (2) n.o.s. (trade name, contains) ST1, Cat. X	X	1	2G	Cont	No	ы	ΝI	No	R	No	A	°N	15.19, 16.2.6
Noxious liquid, NF, (3) n.o.s. (trade name, contains) ST2, Cat. X	ХР	2	2G	Open	No	•		Yes	0	No	А	No	15.19, 16.2.6
Noxious liquid, F, (4) n.o.s. (trade name, contains) ST2, Cat. X	X	2	2G	Cont	No	13	ΠA	No	R	No	A	No	15.19, 16.2.6
Noxious liquid, NF, (5) n.o.s. (trade name, contains) ST2, Cat. Y	ΥΡ	2	2G	Open	No			Yes	0	No	Α.	No	15.19, 16.2.6, 16.2.9
Noxious liquid, F, (6) n.o.s. (trade name, contains) ST2, Cat. Y	ΥΡ	2	2G	Cont	No	n	ΠA	No	R	No	А	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	,	r	Yes	0	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	13	ΠA	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	0	No	A	No	
Noxious liquid, F, (10) n.o.s. (trade name, contains) ST3, Cat. Z	Z P	3	2G	Cont	No	£	ΗA	No	R	No	A	No	
Octane (all isomers)	ХР	2	2G	Cont	No			No	R	F	A		15.19.6
Octanoic acid (all isomers)	Z P	3	2G	Open	No			Yes	0	No	AB	No	

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	U												
Octanol (all isomers)	γ	4	5	2G 0	Open N	No		Yes	0	ů	۲	No	
Octene (all isomers)	γ	4	2	2G C	Cont N	No		No	8	<u>ц</u>	A	No	15.19.6
Octyl aldehydes	Υ	4	5	2G C	Cont N	No		No	×	11	V	No	15.19.6, 16.2.9
Olefin-Alkyl ester copolymer (molecular weight 2000+)	γ	Р	2	2G 0	Open N	No		Yes	0	No	AB	No	15.19.6, 16.2.6, 16.2.9
Olefins (C13+, all isomers)	γ	Р	5	2G 0	Open N	No		Yes	0	No	AB	No	15.19.6, 16.2.9
Oleic acid	Υ	Ρ	2	2G 0	Open N	No		Yes	0	No	AB	No	15.19.6, 16.2.9
Oleum	Y	S/P	2	2G C	Cont N	No		NF	U U	Т	°N N	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)	λ	NA	2 (k)	2G 0	Open N	No -	1	Yes	Open	No 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 0	Open N	No T3	3 IIB	Yes	Open	No L	AB	No	15.19.6, 16.2.6, 16.2.9
Palm oil (containing less than 5% free fatty acids)	γ	NA	2 (k)	2G 0	Open N	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 0	Open N	No -	ł	Ycs	Open	No L	ABC	Å	15.19.6, 16.2.6, 16.2.9
Palm stearin (containing less than 5% free fatty acids)	Y	NA	2 (k)	2G 0	Open N	' 9N		Yes	Open	ON L	DBC	ž	15.19.6, 16.2.6, 16.2.9
Paraffin wax	Y	Р	2	2G 0	Open N	No		Yes	0	No	AB	No	15.19.6, 16.2.6, 16.2.9
Paraldehyde	Z	S/P	3	2G C	Cont N	No T3	1 IB	No	~	щ	V	ν°	15.19.6, 16.2.9
Paraldehyde-ammonia reaction product	Y	S/P	2	2G C	Cont N	No		No	U	F-T	۲	°N	15.12.3, 15.19
Pentachloroethane	Υ	S/P	2	2G C	Cont N	No		NF	R	Т	°N N	No No	15.12, 15.17, 15.19.6
1,3-Pentadiene	Y	S/P	3	2G C	Cont N	No		No	В	F-T	AB	°N	15.13, 15.19.6, 16.6.1, 16.6.2, 16.6.3
Pentane (all isomers)	Υ	Ρ	3	2G C	Cont N	No		No	R	ц	۲	ů	15.14, 15.19.6
Pentanoic acid	Y	đ	3	2G 0	Open N	No		Yes	0	No	AB	No	15.19.6
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	γ	S/P	5	2G 0	Open N	No T2		Yes	C	No	ΔŊ	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	Р	e.	2G C	Cont N	No		No	R	F	A	No	15.14, 15.19.6
n-Pentyl propionate	Y	ď	e.	2G C	Cont N	No		No	R	F	A	No	15.19.6
Perchioroethylene	γ	S/P	2	2G C	Cont N	No		NF	R	Т	No	No	15.12.1, 15.12.2, 15.19.6
Petrolatum	Z	Ρ	3	2G 0	Open N	No		Yes	0	No	AB	°N	
Phenol	γ	S/P	2	2G C	Cont N	No TI	IIA	Yes	υ	т	×	No	15.12, 15.19, , 16.2.9
1-Phenyl-1-xylyl ethane	γ	Ρ	3	2G 0	Open No	0		Yes	0	No	AB	Νo	
Phosphoric acid	Z	S/P	e S	2G 0	Open N	No		NF	0	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	-	1G C	Cont Pad+(ven t or inert)	Pad+(ven t or inert)		No(c)	C ()	No	C	Yes	15.7, 15.19, 16.2.9
Phthalic anhydride (molten)	λ	S/P	2	2G C	Cont No	o Tl	ΠA	Yes	R	No	AD	No	16.2.9, 15.19.6, 16.2.6

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alpha-Pinene	×	4	2 2G	Cont	No			No	2	FA	No	0 15.19.6
beta-Pinene	×	Ч	2 2G	Cont	°N N			No N	~	F A	No	15.19.6
Pine oil	×	Ч	2 2G	Open	°N N			Yes (2 0	No A	No	16.2.6, 16.2.9
Polyalkyi (C18-C22) acrylate in Xylene	Y	4	3 2G	Cont	No			- °N	R	F A	No	15.19.6, 16.2.6, 16.2.9
Polyaikyi (C10-C20) methacrylate	۲	4	2 2G	Open	No			Yes (2 0	No AB	3 No	15.19.6, 16.2.6, 16.2.9
Polyalkyi (C10-C18) methacrylate/ethylene-propylene copolymer mixture	Y	Ρ	2 2G	Open	No			Yes (N 0	No AB	3 No	0 15.19.6, 16.2.6, 16.2.9
Poly(2+)cyclic aromatics	x	4	1 2G	Cont	No			Yes	RN	No AD	°N O	15.19, 16.2.6, 16.2.9
Polyethylene glycol	Z	Р	3 2G	Open	No			Yes (v o	No A	No	
Polyethylene glycol dimethyl ether	z	Ь	3 2G	Open	No			Yes (2 0	No A	No	
Polyferric sulphate solution	Υ	S/P	3 2G	Open	No			NF	v o	No No	°N o	
Polyisobutenamine in aliphatic (C10-C14) solvent	Y	Р	3 2G	Open	No	£	IIA	Yes (v o	No A	No	
Polyisobutenyl anhydride adduct	z	Ρ	3 2G	Open	No			Yes (N 0	No AB	3 No	
Poly(4+)isobutylene	Υ	Ρ	2 2G	Open	No			Yes (2 0	No AB	No No	15.19.6, 16.2.9
Polyolefin amide alkeneamine (C17+)	Y	Ь	2 2G	Open	No		ĺ	Yes (z o	No AB	s No	15.19.6, 16.2.6
Polyolefin amide alkeneamine borate (C28-C250)	Υ	Р	2 2G	Open	No			Yes (v o	No AB	°N No	15.19.6, 16.2.6, 16.2.9
Polyolefinamine (C28-C250)	Y	Ч	2 2G	Open	No			Yes (0 No	0 A	No	16.2.9
Polyolefinamine in alkyl (C2-C4) benzenes	Y	Ч	2 2G	Cont	No			No I	R F	V	°N N	15.19.6, 16.2.6, 16.2.9
Polyolefinamine in aromatic solvent	γ	Р	2 2G	Cont	No			No I	RF		No.	15.19.6, 16.2.6, 16.2.9
Polyolefin anhydride	Y	Р	2 2G	Open	No			Yes (0 No	o AB	No No	15.19.6, 16.2.6, 16.2.9
Polyolefin ester (C28-C250)	Y	4	2 2G	Open	No			Yes 0	N 0	No AB	No No	15.19.6, 16.2.6, 16.2.9
Polyolefin phenolic amine (C28-C250)	Y	Ь	2 2G	Open	No			Yes (N 0	No AB		15.19.6, 16.2.6, 16.2.9
Polyolefin phosphorosulphide, barium derivative (C28-C250)	Y	Р	2 2G	Open	No			Yes (N 0	No AB	No No	16.2.6, 16.2.9
Poly(20) oxyethylene sorbitan monooleate	γ	Ρ	2 2G	Open	No			Yes (0 No	0 V	No	15.19.6, 16.2.6, 16.2.9
Polyptopylene glycol	z	P	3 2G	Open	No			Yes C	0 No	0 A	No	
Polysiloxane	Y	Ρ	3 2G	Cont	No			No F	R F	a AB	No No	15.19.6, 16.2.9
Potassium hydroxide solution	Υ	S/P	3 2G	Open	No			NF	0 No	0 N0	No	15.19.6
Potassium oleate	γ	Р	2 2G	Open	No			Yes 0	No No	0 A	°N	15.19.6, 16.2.6, 16.2.9
Potassium thiosulphate (50% or less)	γ	Ρ	3 2G	Open	No	:		NF O	oN O	0 N0	No No	16.2.9
n-Propanolamine	Y	S/P	3 2G	Open	No			Yes O	No No	o AD	No No	16.2.9, 15.19.6
beta-Propiolactone	٢	S/P	2 2G	Cont	No		IIA '	Yes F	R T	A 1	No	
Propionaidehyde	Y	S/P	3 2G	Cont	No		[No F	R F-T	T A	Yes	s 15.17, 15.19.6
Propionic acid	٢	S/P	3 2G	Cont	No	н	IIA	No F	R F	Y ,	Yes	s 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	12	, AII	Yes F	R T	A	°N	

			-										
ه	J	р	e		500	h 1'		!		¥		=	0
Propionitrile	≻ I	S/P	7	16	Cont 1	No TI	IIB	3 No	C	F-T	ΔŊ	Yes	15.12, 15.17, 15.18, 15.19
n-Propyl acetate	¥	4		2G	Cont]	No		No	R	н	AB	Ŷ	15.19.6
n-propyl alcohol	Y	Ч	3	2G	Cont 1	No		No	Я	н	V	No	15.19.6
n-Propylamine	Z	S/P	2	2G	Cont Ir	Inert T	T2 IIA	No No	ပ	F-T	AD	Yes	15.12, 15.19
Propylbenzene (ali isomers)	γ	Р	3	2G	Cont 1	No		Ŷ	Я	ш	A	No	15.19.6
Propylene glycol methyl ether acetate	Z	Ρ	3	2G	Cont 1	No		No	R	н	A	No	
Propylene glycol monoalkyl ether	Z	Ρ	3	2G	Cont 1	No		No	R	F	AB	No	
Propylene glycol phenyl ether	z	Ρ	3	2G	Open 1	No		Yes	0	No	AB	No	
Propylene oxide	Y	S/P	2	2G	Cont Ir	Inert T	T2 11B	3 No	U	F-T	AC	No	15.8, 15.12.1, 15.14, 15.19
Propylene tetramer	х	Р	2	2G	Cont 1	No		No	Я	ц	A	No	15.19.6
Propylene trimer	γ	Р	2	2G	Cont	No		No	R	F	Y	No	15.19.6
Pyridine	Υ	S/P	2	2G	Cont 1	No Ti	I IIA	No No	Я	F	V	No	15.19.6
Rapeseed oil (low erucic acid, containing less than 4% free fatty acids)	Y	NA	2 (k)	2G	Open h	No		Yes	Open	oN L	ABC	Ŷ	15.19.6, 16.2.6, 16.2.9
Rosin	Y	Р	2	2G	Open 1	No		Yes	0	°N	۲	°N N	15.19.6, 16.2.6, 16.2.9
Sodium aluminosilicate slurry	Z	Ρ	3	2G	Open 1	No		Yes	0	No	AB	°N N	
Sodium benzoate	Z	Р	3	2G	Open	No		Yes	0	°N0	V	Ŷ	
Sodium borohydride (15% or less)/Sodium hydroxide solution	Y	S/P	3	2G	Open N	No		NF	0	No	No	Ŷ	15.19.6, 16.2.6, 16.2.9
Sodium carbonate solution	2	Р	3	2G	Open 1	No		Yes	0	Ň	A	Ŷ	
Sodium chlorate solution (50% or less)	Z	S/P	3	2G	Open N	No		NF	0	Ň	No	No	15.9, 15.19.6, 16.2.9
Sodium dichromate solution (70% or less)	γ	S/P	2	2G	Open N	No		NF	U	ů	No	No	15.12.3, 15.19
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	Z	Ь	3	2G	Open N	No		NF	0	No	No	No	15.19.6, 16.2.9
Sodium hydrogen sulphite solution (45% or less)	Z	S/P	3	2G	Open }	No		NF	0	No	No	No	16.2.9
Sodium hydrosulphide/Ammonium sulphide solution	Y	S/P	2	2G	Cont	No		Ň	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)	2	S/P	ε	2G	Cont Vei pad	Vent or pad (gas)		NF	R	Ŀ	No	No	15.19.6, 16.2.9
Sodium hydroxide solution	Υ	S/P	3	2G	Open N	No		NF	0	No	No	No	16.2.6, 16.2.9
Sodium hypochlorite solution (15% or less)	γ	S/P	2	2G	Cont N	No -	'	.'	R	No	No	No	15.19.6
Sodium nitrite solution	Y	S/P	2	2G	Open N	No		NF	0	No	No	No	15.12.3.1, 15.12.3.2, 15.19, 16.2.9
Sodium silicate solution	Y	٩	ю	2G	Open N	No		NF	0	Ŷ	No	No	16.2.9
Sodium sulphide solution (15% or less)	۲	S/P	3	2G	Cont N	No		NF	C	т	No	No	15.19.6, 16.2.9
Sodium sulphite solution (25% or less)	Y	Р	3	2G	Open N	No		NF	0	No	No	No	15.19.6, 16.2.9
Sodium thiocyanate solution (56% or less)	Y	Р	÷	2G	Open N	No		Yes	0	Ŷ	Ŷ	No	15.19.6, 16.2.9

a d a b a b a b a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a a			5	cuapur 1/									
intention intention <t< th=""><th>c.</th><th>υ</th><th>p</th><th>e</th><th>5.0</th><th>ч</th><th></th><th></th><th></th><th></th><th></th><th>_</th><th></th></t<>	c.	υ	p	e	5.0	ч						_	
method method<	Soyabean oil (containing less than 0.5% free fatty acids)	λ	VN	2 (k)	pen	No	1	.					
Independent Independent <thindependent< th=""> <thindependent< th=""></thindependent<></thindependent<>	Sulpholane	Y	d	3	pen	No			Yes		2		
olimple definition	Sulphonated polyacrylate solution	2	P	3	ont	No			No	×	ц		50
add add yes 3 2 or open No <	Sulphur (molten)	Z	s	3		/ent or ad (gas)	£						
add, point is 3 3 0 is is <t< td=""><td>Sulphuric acid</td><td>Y</td><td>S/P</td><td>3</td><td>pen</td><td>No</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Sulphuric acid	Y	S/P	3	pen	No							
Idet(14.20) Idet(14.21) Idet(14.	Sulphuric acid, spent	γ	S/P	3	ben	No							
result N 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1) 2(1)	Sulphurized fat (C14-C20)	Ζ	Р	ñ	hen	No No							lo
notical destant 15% free fury cacity No 100 No	Sunflowerseed oil (containing less than 7% free fatty acids)	γ	NA		hen	No	1	,					
ordate No No <th< td=""><td>Tallow (containing less than 15% free fatty acids)</td><td>Y</td><td>NA</td><td>2 (k)</td><td>pen</td><td>No</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Tallow (containing less than 15% free fatty acids)	Y	NA	2 (k)	pen	No							
metrolition	Tetrachloroethane	Y	S/P	2	ont	No			NF				
interface interface <t< td=""><td>Tetracthylene glycol</td><td>Z</td><td>Р</td><td>3</td><td>pen</td><td>No</td><td></td><td></td><td></td><td></td><td></td><td></td><td>lo</td></t<>	Tetracthylene glycol	Z	Р	3	pen	No							lo
dom dem dem <td>Tetraethylene pentarnine</td> <td>γ</td> <td>S/P</td> <td>2</td> <td>pen</td> <td>No</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>lo</td>	Tetraethylene pentarnine	γ	S/P	2	pen	No							lo
question	Tetrahydrofuran	Z	s	3	ont	No		IIB					
ylenzace(allisomes) x r z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z z	Tetrahydronaphthalene	Y	4	2	pen	No							10
diok dury Z P Z Q Vot V	Tetramethylbenzene (all isomers)	х	۹.	2	pen	No							
	Titanium dioxide slurry	Z	4		pen	No							0
anite model N Y S Z Z Cont No Yes C T AD Yes	Toluene	Y	۹.	3	ont	No							
	Toluenediamine	Y	S/P		ont	No							es 15.12, 15.17, 15.19, 16.2.9, 16.2.6
me Y SP Z G Out Yes C T A No hosphate Y P Z Q Out No Yes V	Toluene diisocyanate	Y	S/P		ont	Dry							es 15.12, 15.16.2, 15.17, 15.19, 16.2.9
hosphateYP32GOpenNoYesONoANohoroberzete (nolten)XS/PI2GContNoYesYANohoroberzete (nolten)XS/PI2GContNoYesYANohoroberzeteXS/PI2GContNoYesYNoNohoroberzeteXS/PZContNoYesNoYesNoNohoroberzeteXS/PZZGContNoYesNoNoNohoroberzeteXS/PZZGContNoYesNoNoNohoroberzeteXS/PZZGContNoYesYesYesNoNohoroberzeteXS/PZZGContNoYesYesYesNoNohoroberzeteXS/PZZGContNoYesYesYesNoNohoroberzeteXS/PZZGContNoYesYesYesYesNoNohoroberzeteXS/PZZGContNoYesYesYesYesNoNohoroberzeteYZZZGContNoYesYesYesYesNoNohoroberzeteYZZZGCont<	o-Toluidine	Y	S/P		ont	No							
	Tributyl phosphate	Y	Ч	3	pen	No							
	1,2,3-Trichlorobenzene (molten)	x	S/P	1	ont	No							es 15.12.1, 15,17, 15.19, 16.2.9, 16.2.6
Inforcettane Y P 3 2G Open No Yes O No A No hloroettane Y S/P 3 2G Cont No T No No <td>1,2,4-Trichlorobenzene</td> <td>х</td> <td>S/P</td> <td>1</td> <td>ont</td> <td>No</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1,2,4-Trichlorobenzene	х	S/P	1	ont	No							
	1,1,1-Trichloroethane	Y	Ч		pen	No	1						0
Y S/P Z G G IA Ves T N_0 N_0 N_0 hloropropate Y S/P Z ZG G N_0 Yes T ABD N_0 hloro-1.2.2-Triftucorethate Y P Z ZG $Open$ N_0 Y N_0	1,1,2-Trichloroethane	Y	S/P		ont	No							
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Trichloroethylene	Y	S/P		ont	No							
Inforo-1.2.2-Triftucroettane Y P 2 2G Open No NF O No No <th< td=""><td>1,2,3-Trichloropropane</td><td>Y</td><td>S/P</td><td></td><td>ont</td><td>No</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	1,2,3-Trichloropropane	Y	S/P		ont	No							
Absolutate (containing 1% or more ortho-isomer) Y P 2 2G Open No T2 IA Yes C No AB No Y P 2 2G Open No Yes O No AB No	1,1,2-Trichloro-1,2,2-Trifluoroethane	Y	P		pen	No							0
Y P 2 2G Open No Yes O No AB No	Tricresyl phosphate (containing 1% or more ortho-isomer)	Y	S/P		ont	No							
	Tridecane	Y	Ρ		pen	No							lo 15.19.6

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~	J	р	e f	50	ų	1.	Ч.	I	÷	¥	-	E	0
Tridecanoic acid	Υ.	Р	2 2G) Open	No			Yes	0	No No	A		15.19.6, 16.2.6, 16.2.9
Tridecyl acetate	z	P	3 2G	à Open	No			Yes	0	No	AB	No	
Triethanolamine	Z	S/P	3 2G	i Open	No		ΝI	Yes	0	No	¥	ν°	16.2.9
Triethylamine	Y	S/P	2 2G	Gont Cont	No	11	ΠA	No	×	F-T	AC	Yes	15.12, 15.19.6
Triethylbenzene	x	Ч	2 2G) Open	No			Yes	0	No	A	No	15.19.6
Triethylenetetramine	Y	S/P	2 2G	i Open	No	12	IIA	Yes	0	No	۲	°	
Triethyl phosphate	Z	Ь	3 2G	i Open	No			Yes	0	°N N	A	No	
Triethylphosphite	z	S/P	3 2G	Gont Cont	No			Ŷ	ч	F-T	AB	ů	15.12.1, 15.19.6, 16.2.9
Triisopropanolamine	z	Р	3 2G	i Open	No			Yes	0	No	A	Ŷ	
Triisopropylated phenyl phosphates (containing less than 1% ortho-isomer)	x	Ρ	2 2G	i Open	No			Yes	0	°N N	A	°N	15.19.6, 16.2.6
Trimethylacetic acid	Y	S/P	3 2G	Cont	No			Yes	2	°N	×	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	i Cont	No			No	c	F-T	AC	Yes	15.12, 15.14, 15.19, 16.2.9
Trimethylbenzene (all isomers)	x	Р	2 2G	Cont	No			No	~	ы	A	°N N	15.19.6
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	Z	Р	3 2G	open	No			Yes	0	ν	AB	°N	
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	Y	P	2 2G	open i	No			Yes	0	Ŷ	A	Ŷ	
1,3,5-Trioxane	Y	S/P	3 2G	Cont	No			°N	×	ш	AD	Ν	15.19.6, 16.2.9
Tripropylenc glycoł	z	Ρ	3 2G	i Open	No			Yes	0	Ŷ	۲	No	
Trixylyl phosphate	х	Ρ	2 2G	i Open	No			Yes	0	No	۷	٩	15.19.6, 16.2.6
Tung oil (containing less than 2.5% free fatty acids)	Y	NA 2	2 (k) 2G	i Open	No			Yes	Open	No	ABC D	No	15.19.6, 16.2.6, 16.2.9
Turpentine	×	Ρ	2 2G	Cont	No			No	R	н	A	No	15.19.6
Undecanoic acid	۲	٩	2 2G	Open	No			Yes	0	No	۷	No	16.2.6, 16.2.9
l-Undecene	×	Р	2 2G	Open	No			Yes	0	No	A	No	15.19.6
Undecyl alcohol	×	Ь	2 2G	Open	No			Yes	0	No	A	No	15.19.6, 16.2.9
Urea/Ammonium nitrate solution	z	Ч	3 2G	Open	No			Yes	0	No	۷	No	
Urea/Ammonium nitrate solution (containing aqua ammonia)	Z	S/P	3 2G	Cont	No			NF	R	Ч	A	°N N	16.2.9
Urea/Ammonium phosphate solution	۲	Ч	2 2G	Open	No			Yes	0	No	V	No	15.19.6
Urea solution	z	Ч	3 2G	Open	No			Yes	0	No	¥	No	
Valeraldehyde (all isomers)	Х	S/P	3 2G	Cont	Inert	13	IIB	No	R	F-T	A	Ň	15.4.6, 15.19.6
Vegetable protein solution (hydrolysed)	z	٩.	3 2G	Open	No			Yes	0	No	A	°N	
Vinyl acetate	۲	S/P	3 2G	Cont	No	17	ΝI	No	R	F	Α	No	15.13, 15.19.6, 16.6.1, 16.6.2
Vinyl ethyl ether	z	S/P	2 1G	Cont	Inert	13	IIB	No	С	F-T	Α	Yes	15.4, 15.13, 15.14, 15.19, 16.6.1, 16.6.2
Vinylidene chloride	۲	S/P	2 2G	Cont	Inert	12	IIA	No	R	F-T	в	Yes	15.13, 15.14, 15.19.6, 16.6.1, 16.6.2

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ce	U	p	e	00	Ч		I	1. 1. I	. - ,	¥	-	5	0
Vinyl neodecanoate	Υ	S/P	2 2G	G Open	No No	0		Yes	0	°Z	AB		No 15.13, 15.19.6, 16.6.1, 16.6.2
Vinyltoluene	γ	S/P 2 2G	2 2	.G Cont		No	ΠA	No N	ч	ц	AB		No 15.13, 15.19.6, 16.6.1, 16.6.2
Waxes (Should be Petrolatum, purified)	Z	Р	3 2G	.G Open		No		Yes	0	No	AB	No	
Xylenes	γ	Ρ	P 2 2G	.G Cont	No	0		No	~	щ	۲		No 15.19.6 (h)
Xylenol	Y	S/P 3 2G	3 2	G Open	1 No	0	VII	Yes	Yes 0	No	AB		No 15.19.6, 16.2.9
Zinc alkaryl dithiophosphate (C7-C16)	Y	Ρ	2 2G	G Open		No		Yes	0	Ŷ	AB		No 16.2.6, 16.2.9
Zinc alkenyl carboxamide	Y	Ρ	2 2G	G Open		No		Yes	0	No	AB		No 15.19.6, 16.2.6
Zinc alkyl dithiophosphate (C3-C14)	Ý	d	2 2G	G Open	No No	0		Yes	0	No	AB	N°	No AB No 15.19.6, 16.2.6

Chap	ter 18
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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

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