標題

2021年1月1日発効のIBC/BCH Code及びMARPOL 73/78 附属書IIの改正について
（日本籍以外の船舶）

ClassNK
テクニカル
インフォメーション

No. TEC-1195
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各位

ClassNKテクニカル・インフォメーションNo.TEC-1191及びNo.TEC-1192でお知らせ致しました通り、危険化学品ばら積船及び有害液体物質ばら積船に適用されるIBC Codeの改正（MSC460(101) / MEPC318(74)）、BCH Codeの改正（MSC463(101) / MEPC319(74)）及びMARPOL 73/78 附属書IIの改正（MEPC315(74)）が採択されました。当該改正は2021年1月1日より発効致しますが、建造日に関わらず全ての船舶は、発効日までに改正要件を満足する必要がありますので、事前に改正内容の概要をお知らせ致します。

<MARPOL 条約 附属書IIの主な改正点>

1. 残留性浮遊物質（Persistent floating products）に対する予備洗浄の要求
   残留性浮遊物質（Persistent floating products）が新たに定義され、20℃における粘度≧50(mPa・s)又は融点≧0℃の残留性浮遊物質（IBC Code 17章の特別要件欄に「16.2.7」が記載される物質）を北西ヨーロッパ等の特定海域で揚荷した場合には、従来の規定に関わらず予備洗浄の実施が要求されるようになります。添付1.に対象物質を纏めておりますのでご参照下さい。

2. P&A Manual 標準様式の変更
   上記に伴いP&A Manualの標準様式が変更され、発効日までに変更された標準様式に対応したP&A Manualの承認及び本船保管が必要となります。

<IBC Code (BCH Code)の主な改正点>

1. 運送要件の見直し（17章、18章）
   運送要件の査定基準（21章）の改正に伴い、17章及び18章に記載される全物質の運送要件見直しが行われ、殆どの物質で変更が生じております。個々の物質の運送要件で変更となる箇所を添付2.に纏めておりますのでご参照下さい。

2. 残留性浮遊物質の作業要件の追加（16章）
   上記MARPOL改正に伴い、対象物質の明確化を目的に「16.2.7」を新規制定。

3. 硫化水素検知器の搭載要件の追加（15章）
   以下の2物質に対する特別要件として、硫化水素検知器の搭載要件を「15.15」として新規制定。
   - Sodium hydrosulphide/Ammonium sulphide solution
   - Sodium hydrosulphide solution (45% or less)

（次頁に続く）

上記 1. の運送要件の変更に伴い、多くの船舶において、証書の記載内容を変更する（例: 積載物質の削除等）、又は改正後の運送要件へ適合するため本船設備等を変更する必要が生じます。詳細については、必要に応じ、船体部 タンカー部門（hld@classnk.or.jp）までお問い合わせ下さい。

なお、新証書（改正 Code に対応した証書）の発行手順や取扱い、図面審査・承認の手続きについては、別途テクニカル・インフォメーションにてご連絡致します。

また、日本籍船の取り扱いについても、日本政府の方針が決定され次第、別途テクニカル・インフォメーションにてご連絡致します。

なお、本件に関してご不明な点は、以下の部署にお問い合わせください。

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添付:

1. List of persistent floating products as identified by '16.2.7' in column 'o' of chapter 17 of IBC Code
2. Summary of revised carriage requirements in Chapter 17&18

List of persistent floating products as identified by 16.2.7 in column 'o' of Chapter 17 of IBC Code

No.	Product name
1	Acid oil mixture from soyabean, corn (maize) and sunflower oil refining
2	Camelina oil
3	Cashew nut shell oil (untreated)
4	Castor oil
5	Cocoa butter
6	Coconut oil
7	Coconut oil fatty acid
8	Corn Oil
9	Cotton seed oil
10	Fatty acids, (C12+)
11	Fish oil
12	Grape Seed Oil
13	Groundnut oil
14	Illipe oil
15	Jatropha oil
16	Lard
17	Mango kernel oil
18	Non-edible industrial grade palm oil
19	Olive oil
20	Palm acid oil
21	Palm fatty acid distillate
22	Palm kernel acid oil
23	Palm kernel fatty acid distillate
24	Palm kernel oil
25	Palm kernel olein
26	Palm kernel stearin
27	Palm mid-fraction
28	Palm oil
29	Palm olein
30	Palm stearin
31	Paraffin wax, highly-refined
32	Rapeseed oil
33	Rapeseed oil (low erucic acid containing less than 4% free fatty acids)
34	Rice bran oil
35	Safflower oil
36	Shea butter
37	Soyabean oil
38	Sunflower seed oil

List of persistent floating products as identified by 16.2.7 in column 'o' of Chapter 17 of IBC Code

No.	Product name
39	Tallow
40	Tallow fatty acid
41	Tung oil
42	Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (m) (n)
43	Vegetable acid oils (m)
44	Vegetable fatty acid distillates (m)
45	Vegetable oil mixtures, containing less than 15% free fatty acid (m)

As per new regulation 13.7.1.4 of Annex II of MARPOL, for persistent floater substances as listed above, the following shall apply in the areas in new regulation 13.9;

1. a prewash procedure as specified in appendix VI* to this annex shall be applied;

2. the residue/water mixture generated during the prewash shall be discharged to a reception facility at the port of unloading until the tank is empty; and

3. any water subsequently introduced into the tank may be discharged into the sea in accordance with the discharge standards in regulation 13.2."

*Prewash procedures for persistent floaters to which new regulation 13.7.1.4 applies

- Persistent floaters with a viscosity equal to or greater than 50 mPa・s at 20°C and/or a melting point equal to or greater than 0°C, shall be treated as solidifying or high-viscosity substances for the purposes of the prewash.

- Where it is determined that the use of small amounts of cleaning additives would improve and maximize the removal of cargo residues during a prewash, then this should be done in consultation and with prior agreement from the reception facility."

(Reference) Areas to which regulation 13.7.1.4 applies / Regulation 13.9

North West European waters include the North Sea and its approaches, the Irish Sea and its approaches, the Celtic Sea, the English Channel and its approaches and part of the North East Atlantic immediately to the west of Ireland. The area is bounded by lines joining the following points:

48°27' N on the French coast
48°27' N; 006° 25' W
49°52' N; 007° 44' W
50°30' N; 012° W
56°30' N; 012° W
62° N; 003° W
62° N on the Norwegian coast
57°44.8' N on the Danish and Swedish coasts

Baltic Sea area means the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.8' N;

Western European waters is an area that covers the United Kingdom, Ireland, Belgium, France, Spain and Portugal, from the Shetland Islands in the North to Cape S. Vicente in the South, and the English Channel and its approaches. The area is bounded by lines joining the following points:

58°30' N on the UK coast
58°30' N; 000° W
62° N; 000° W
62° N; 003° W
56°30' N; 012° W
54°40'40.9" N; 015° W
50°56'45.3" N; 015° W
48°27' N; 006°25' W
48°27' N; 008° W
44°52' N; 003°10' W
44°52' N; 010° W
44°14' N; 011°34' W
42°55' N; 012°18' W
41°50' N; 011°34' W
37°00' N; 009°49' W
36°20' N; 009°00' W
36°20' N; 007°47' W
37°10' N; 007°25' W
51°22'25" N; 003°21'52.5" E
52°12' N; on the UK east coast
52°10.3' N; 006°21.8' W

(Reference) Areas to which regulation 13.7.1.4 applies / Regulation 13.9

52°01.52' N; 005°04.18' W
54°51.43' N; 005°08.47' W
54°40.39' N; 005°34.34' W

Norwegian Sea is bounded by lines joining the following points:"

69°47.6904' N; 030°49.059' E
69°58.758' N; 031°6.2598' E
70°8.625' N; 031°35.1354' E
70°16.4826' N; 032°4.3836' E
73°23.0652' N; 036°28.5732' E
73°35.6586' N; 035°27.3378' E
74°2.9748' N; 033°17.8596' E
74°20.7084' N; 030°33.5052' E
74°29.7972' N; 026°28.1808' E
74°24.2448' N; 022°55.0272' E
74°13.7226' N; 020°15.9762' E
73°35.439' N; 016°36.4974' E
73°14.8254' N; 014°9.4266' E
72°42.54' N; 011°42.1392' E
71°58.2' N; 009°54.96' E
71°37.5612' N; 008°43.8222' E
70°43.161' N; 006°36.0672' E
69°36.624' N; 004°47.322' E
68°58.3164' N; 003°51.2154' E
68°14.9892' N; 003°17.0322' E
67°25.7982' N; 003°10.2078' E
66°49.7292' N; 003°25.1304' E
66°25.9344' N; 003°17.1102' E
65°22.7214' N; 001°24.5928' E
64°25.9692' N; 000°29.3214' W
63°53.2242' N; 000°29.442' W
62°53.4654' N; 000°38.355' E
62° N; 001°22.2498' E
62° N; 004°52.3464' E

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
1	Acetic acid										R ↓ C		A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 15.19.6 16.2.9 ↓ 15.11.2~15.11.4 15.11.6~15.11.8 15.17 15.19 16.2.9
2	Acetic anhydride												A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 15.19.6 ↓ 15.11.2~15.11.4 15.11.6~15.11.8 15.12.3 15.12.4 15.19.6
3	Acetochlor		P ↓ S/P										A ↓ AC		
4	Acetone cyanohydrin			2 ↓ 1	2G ↓ 1G			T1 ↓ -	IIA ↓ -				A ↓ AC		15.13 15.12 15.17 15.18 15.19 16.6.1~16.6.3 ↓ 15.12 15.13 15.17 15.19 16.6.1~16.6.3
5	Acetonitrile			2 ↓ 3									A ↓ AC		15.12 15.19.6 ↓ 15.12.3 15.12.4 15.19.6
6	Acetonitrile (Low purity grade)	No change													
7	Acid oil mixture from soyabean, corn (maize) and sunflower oil refining														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
8	Acrylamide solution (50% or less)			2 ↓ 3		Open ↓ Cont						No ↓ T			15.12.3 15.13 15.19.6 16.6.1 16.2.9 ↓ 15.12 15.13 15.17 15.19 16.2.9 16.6.1
9	Acrylic acid												A ↓ AC		
10	Acrylic acid / ethenesulphonic acid copolymer with phosphonate groups, sodium salt solution							- ↓	- ↓						
11	Acrylonitrile												A ↓ AC		
12	Acrylonitrile-Styrene copolymer dispersion in polyether polyol												AB ↓ ABC		
13	Adiponitrile			3 ↓ 2				↓ -	IIB ↓ -		R ↓ C		A ↓ AC	No ↓ Yes	16.2.9 ↓ 15.12 15.17 15.19 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
14	Alachlor technical (90% or more)					Open ↓ Cont					O ↓ C	No ↓ T			15.19.6 16.2.9 ↓ 15.12 15.17 15.19.6 16.2.9
15	Alcohol (C9-C11) poly (2.5-9) ethoxylate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3~15.12.4 15.19.6 16.2.9
16	Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.9
17	Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.6 16.2.9
18	Alcohol (C10-C18) poly(7) ethoxylate							- ↓	- ↓				ABC ↓ AC		
19	Alcohol (C12-C16) poly(1-6)ethoxylates		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.9
20	Alcohol (C12-C16) poly(20+)ethoxylates		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.9
21	Alcohol (C12-C16) poly(7-19)ethoxylates		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.9
22	Alcohols (C13+)												AB ↓ ABC		
23	Alcohols (C12+), primary, linear	No change													
24	Alcohols (C8-C11), primary, linear and essentially linear	No change													
25	Alcohols (C12-C13), primary, linear and essentially linear	No change													
26	Alcohols (C14-C18), primary, linear and essentially linear	No change													
27	Alkanes (C6-C9)		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
28	Iso- and cyclo-alkanes (C10-C11)		P ↓ S/P										A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
29	Iso- and cyclo-alkanes (C12+)		P ↓ S/P										A ↓ AC		↓ 15.19.6
30	n-Alkanes (C9-C11)											FT ↓ F			15.12.3, 15.12.4, 15.19.6 ↓ 15.19.6
31	n-Alkanes (C10+) ↓ n-Alkanes (C10-C20)			3 ↓ 2		Cont ↓ Open		T3 ↓ -	IIA ↓ -	No ↓ Yes	R ↓ O	F ↓ No	A ↓ ABC		15.19.6 ↓ 15.19.6 16.2.6 16.2.9
32	Alkaryl polyethers (C9-C20)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19, 16.2.6
33	Alkenoic acid, polyhydroxy ester borated	No change													
34	Alkenyl (C11+) amide		P ↓ S/P										A ↓ ABC		
35	Alkenyl (C16-C20) succinic anhydride												No ↓ ABC		
36	Alkyl acrylate/vinylpyridine copolymer in toluene		P ↓ S/P					T4 ↓ T1			R ↓ C	F ↓ FT	A ↓ ABC		15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.9
37	Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)			1 ↓ 2		Cont ↓ Open		T1 ↓ -	IIA ↓ -		C ↓ O	T ↓ No			15.12 15.17 15.19 ↓ 15.19.6
38	Alkylated (C4-C9) hindered phenols					Open ↓ Cont					O ↓ R	No ↓ T	BD ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.6, 16.2.9
39	Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)												A ↓ AC		15.19.6 ↓
40	Alkyl benzene distillation bottoms	No change													
41	Alkylbenzene mixtures (containing at least 50% of toluene)	No change													
42	Alkylbenzenes mixtures (containing naphthalene)							- ↓	- ↓						
43	Alkyl (C3-C4) benzenes		P ↓ S/P					T4 ↓ T1				F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
44	Alkyl (C5-C8) benzenes		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
45	Alkyl (C9+) benzenes		P ↓ S/P										AB ↓ ABC		↓ 15.19.6
46	Alkyl (C11-C17) benzene sulphonic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12.3 15.12.4 15.19.6 16.2.6
47	Alkylbenzene sulphonic acid, sodium salt solution					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.6, 16.2.9
48	Alkyl/cyclo (C4-C5) alcohols	No change													
49	Alkyl (C10-C15, C12 rich) phenol poly (4-12) ethoxylate							- ↓	- ↓						
50	Alkyl (C12+) dimethylamine												BCD ↓ ABC		
51	Alkyl dithiocarbamate (C19-C35)												AB ↓ ABC		
52	Alkyldithiothiadiazole (C6-C24)												A ↓ AC		
53	Alkyl ester copolymer (C4-C20)												AB ↓ ABC		
54	Alkyl (C7-C9) nitrates					Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 15.20 16.6.1 16.6.2 16.6.3 ↓ 15.12 15.17 15.19 15.20 16.6.1 16.6.2 16.6.3
55	Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	No ↓ AC	No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.6, 16.2.9
56	Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	No ↓ AC		16.2.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.6 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
57	Alkyl(C7-C11) phenol poly(4-12) ethoxylate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
58	Alkyl (C8-C40) phenol sulphide		P ↓ S/P										AB ↓ ABC		
59	Alkyl (C8-C9) phenylamine in aromatic solvents		P ↓ S/P					T4 ↓ T1				F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
60	Alkyl (C9-C15) phenyl propoxylate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		↓ 15.12.3, 15.12.4, 15.19.6
61	Alkyl (C8-C10) polyglucoside solution (65% or less)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	No ↓ AC		16.2.6 ↓ 15.12.3 15.12.4 15.19.6 16.2.6
62	Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	No ↓ AC	No ↓ Yes	16.2.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.6, 16.2.9
63	Alkyl (C12-C14) polyglucoside solution (55% or less)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	No ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.9
64	Alkyl (C12-C16) propoxyamine ethoxylate	No change													
65	Alkyl (C10-C20, saturated and unsaturated) phosphite												A ↓ ABC		16.2.9 ↓ 15.19.6 16.2.9
66	Alkyl sulphonic acid ester of phenol												AB ↓ ABC		
67	Alkyl (C18+) toluenes	No change													
68	Alkyl(C18-C28) toluenesulphonic acid						- ↓	- ↓							
69	Alkyl(C18-C28)toluenesulfonic acid, calcium salts, borated ↓ Alkyl(C18-C28) toluenesulphonic acid, calcium salts, borated					Cont ↓ Open	- ↓	- ↓			C ↓ O	T ↓ No		Yes ↓ No	15.12 15.17 15.19 16.2.6 ↓ 15.19.6 16.2.6
70	Alkyl (C18-C28) toluenesulfonic acid, calcium salts, low overbase ↓ Alkyl (C18-C28) toluenesulphonic acid, calcium salts, low overbase										C ↓ R			Yes ↓ No	15.12 15.17 15.19 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
71	Alkyl (C18-C28) toluenesulphonic acid, calcium salts, high overbase					Cont ↓ Open					C ↓ O	T ↓ No		Yes ↓ No	15.12 15.17 15.19 16.2.6 ↓ 15.19.6 16.2.6
72	Allyl alcohol												A ↓ AC		
73	Allyl chloride												A ↓ AC	Yes ↓ No	
74	Aluminium chloride/Hydrogen chloride solution	No change													
75	Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)							- ↓	- ↓						
76	Aluminium sulphate solution		P ↓ S/P			Open ↓ Cont				Yes ↓ NF	O ↓ C	No ↓ T	A ↓ No	No ↓ Yes	15.19.6 ↓ 15.12 15.17 15.19
77	2-(2-Aminoethoxy) ethanol					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 ↓ 15.12 15.17 15.19
78	Aminoethyldiethanolamine/Aminoethylethanolamine solution		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	16.2.9 ↓ 15.12 15.17 15.19, 16.2.9
79	Aminoethyl ethanolamine					Open ↓ Cont		T2 ↓ -	IIA ↓ -		O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	↓ 15.12 15.17 15.19
80	N-Aminoethylpiperazine										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.17 15.19
81	2-Amino-2-methyl-1-propanol		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	↓ 15.12 15.17 15.19
82	Ammonia aqueous (28% or less)										R ↓ C		ABC ↓ No		15.19.6 ↓ 15.12 15.17 15.19
83	Ammonium chloride solution (less than 25%) ↓ Ammonium chloride solution (less than 25%) (*)	No change													

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
84	Ammonium hydrogen phosphate solution												A ↓ AC		
85	Ammonium lignosulphonate solutions												A ↓ AC		
86	Ammonium nitrate solution (93% or less) ↓ Ammonium nitrate solution (93% or less) (*)					Open ↓ Cont					O ↓ R	No ↓ T			15.2 15.11.4 15.11.6 15.18 15.19.6 16.2.9 ↓ 15.2, 15.11.4, 15.11.6, 15.12.3, 15.12.4, 15.18, 15.19.6, 16.2.9
87	Ammonium polyphosphate solution												A ↓ AC		
88	Ammonium sulphate solution									Yes ↓ NF			A ↓ No		
89	Ammonium sulphide solution (45% or less) ↓ Ammonium sulphide solution (45% or less) (*)						No ↓ Inert						A ↓ AC	Yes ↓ No	
90	Ammonium thiosulphate solution (60% or less)		P ↓ S/P												16.2.9 ↓
91	Amyl acetate (all isomers)		P ↓ S/P										A ↓ ABC		
92	n-Amyl alcohol		P ↓ S/P	3 ↓ 2							R ↓ C	F ↓ FT	AB ↓ ABC	No ↓ Yes	↓ 15.12 15.17 15.19
93	Amyl alcohol, primary		P ↓ S/P									F ↓ FT	AB ↓ ABC		↓ 15.12.3, 15.12.4, 15.19.6
94	sec-Amyl alcohol		P ↓ S/P									F ↓ FT	AB ↓ ABC		↓ 15.12.3, 15.12.4, 15.19.6
95	tert-Amyl alcohol		P ↓ S/P										A ↓ AC		↓ 15.19.6
96	tert-Amyl ethyl ether	No change													

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
97	tert-Amyl methyl ether		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
98	Aniline												A ↓ AC	No ↓ Yes	
99	Aryl polyolefins (C11-C50)												AB ↓ ABC		
100	Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)		P ↓ S/P					T4 ↓ T3					B ↓ ABC		
101	Barium long chain (C11-C50) alkaryl sulphonate					Open ↓ Cont					O ↓ R	No ↓ T	AD ↓ ABC		15.12.3 15.19 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19 16.2.6 16.2.9
102	Benzene and mixtures having 10% benzene or more (i)												AB ↓ ABC		15.12.1 15.17 15.19.6 16.2.9 ↓ 15.12 15.17 15.19.6, 16.2.9
103	Benzene sulphonyl chloride	Z ↓ Y									R ↓ C		AD ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.17 15.19, 16.2.9
104	Benzenetricarboxylic acid, trioctyl ester		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		15.19.6 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6
105	Benzyl acetate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
106	Benzyl alcohol		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
107	Benzyl chloride									Yes ↓ No		T ↓ FT	AB ↓ ABC		
108	Bio-fuel blends of Diesel/gas oil and FAME (>25% but <99% by volume)	No change													
109	Bio-fuel blends of Diesel/gas oil and vegetable oil (>25% but <99% by volume)	No change													
110	Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume)										C ↓ R		A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
111	Bis (2-ethylhexyl) terephthalate							- ↓	- ↓						
112	Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters												A ↓ AC		
113	Bromochloromethane		S/P ↓ P			Cont ↓ Open					R ↓ O	T ↓ No			
114	Butene oligomer					Open ↓ Cont		↓ T4	↓ IIB	Yes ↓ No	O ↓ R	No ↓ F	A ↓ ABC		
115	2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)							- ↓	- ↓						
116	Butyl acetate (all isomers)												A ↓ AC		
117	Butyl acrylate (all isomers)			2 ↓ 3								FT ↓ F	A ↓ ABC		
118	tert-Butyl alcohol												A ↓ AC		↓ 15.19.6
119	Butylamine (all isomers)										R ↓ C		A ↓ AC		15.12 15.17 15.19.6 ↓ 15.12 15.17 15.19
120	Butylbenzene (all isomers)		P ↓ S/P					T4 ↓ T2				F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
121	Butyl benzyl phthalate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12 15.17 15.19.6
122	Butyl butyrate (all isomers)		P ↓ S/P										A ↓ ABC		
123	Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture					Cont ↓ Open		↓ T3	↓ IIA	Yes ↓ No		No ↓ F	AD ↓ ABC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
124	Butylene glycol		P ↓ S/P										A ↓ AC		
125	1,2-Butylene oxide										R ↓ C	F ↓ FT			15.8.1~15.8.7 15.8.12~15.8.13 15.8.16~15.8.19 15.8.21 15.8.25.1~15.8.25.3 15.8.27 15.8.29 15.19.6 ↓ 15.8.1~15.8.7 15.8.12~15.8.13 15.8.16~15.8.19 15.8.21 15.8.25 15.8.27 15.8.29 15.12 15.17 15.19.6
126	n-Butyl ether											FT ↓ F	A ↓ AC		15.4.6 15.12 15.19.6 ↓ 15.4.6 15.19
127	Butyl methacrylate							T1 ↓ T3				FT ↓ F	AD ↓ ABC		
128	n-Butyl propionate												A ↓ ABC		
129	Butyraldehyde (all isomers)											FT ↓ F	A ↓ AC		
130	Butyric acid										R ↓ O		A ↓ AC		
131	gamma-Butyrolactone		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC		15.19.6 ↓ 15.12, 15.17, 15.19.6
132	Calcium alkaryl sulphonate (C11-C50)					Cont ↓ Open					C ↓ O	T ↓ No		Yes ↓ No	15.12 15.17 15.19 ↓
133	Calcium alkyl (C10-C28) salicylate	No change													
134	Calcium hydroxide slurry	Z ↓ Y	P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.9
135	Calcium hypochlorite solution (15% or less)											No ↓ T			16.2.9 ↓ 15.12.3 15.12.4 15.19.6
136	Calcium hypochlorite solution (more than 15%)											No ↓ T			15.19 16.2.9 ↓ 15.12.3 15.12.4 15.19

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
137	Calcium lignosulphonate solutions									Yes ↓ NF			A ↓ No		
138	Calcium long-chain alkyl (C5-C10) phenate												A ↓ AC		
139	Calcium long-chain alkyl (C11-C40) phenate		P ↓ S/P										A ↓ ABC		
140	Calcium long-chain alkyl phenate sulphide (C8-C40)	No change													
141	Calcium long-chain alkyl salicylate (C13+)		P ↓ S/P										AB ↓ ABC		15.19.6 16.2.6 ↓ 15.19.6 16.2.6, 16.2.9
142	Calcium long-chain alkyl (C18-C28) salicylate					Cont ↓ Open					C ↓ O	T ↓ No		Yes ↓ No	15.12 15.17 15.19 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.9
143	Calcium nitrate/Magnesium nitrate/Potassium chloride solution		P ↓ S/P							Yes ↓ NF			A ↓ No		
144	Calcium nitrate solution (50% or less)		↓ S	↓ 3	↓ 2G	↓ Open	↓ No	↓ -	↓ -	↓ NF	↓ O	↓ No	↓ No	↓ No	↓ 16.2.9
145	Camelina oil							↓ -	↓ -						15.19.6, 16.2.6 ↓ 15.19.6, 16.2.6, 16.2.7
146	epsilon-Caprolactam (molten or aqueous solutions)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		↓ 15.12.3, 15.12.4, 15.19.6
147	Carbolic oil												A ↓ ABC	No ↓ Yes	15.12 15.19.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.9
148	Carbon disulphide			2 ↓ 1			↓ Pad + Inert								15.3 15.12 15.19 ↓ 15.3 15.12 15.17 15.18 15.19
149	Carbon tetrachloride													Yes ↓ No	

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
150	Cashew nut shell oil (untreated)												AB ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.7, 16.2.9
151	Castor oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
152	Cesium formate solution ↓ Cesium formate solution (*)	No change													
153	Cetyl/Eicosyl methacrylate mixture												AD ↓ ABC		
154	Chlorinated paraffins (C10-C13)		P ↓ S/P			Open ↓ Cont				Yes ↓ NF	O ↓ C	No ↓ T	A ↓ No		15.19 16.2.6 ↓ 15.12 15.17 15.19 16.2.6
155	Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19 ↓ 15.12 15.17 15.19
156	Chloroacetic acid (80% or less)											No ↓ T		No ↓ Yes	15.11.2 15.11.4 15.11.6~15.11.8 15.12.3 15.19 16.2.9 ↓ 15.11.2, 15.11.3, 15.11.4 15.11.6~15.11.8 15.12, 15.17, 15.18 15.19 16.2.9
157	Chlorobenzene												AB ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
158	Chloroform										R ↓ C			Yes ↓ No	15.12 15.19.6 ↓ 15.12 15.17 15.19.6
159	Chlorohydrins (crude)												A ↓ AC	No ↓ Yes	15.12 15.19 ↓ 15.12 15.17 15.19
160	4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T			16.2.9 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
161	o-Chloronitrobenzene												ABD ↓ ABC		15.12 15.17 15.18 15.19 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19, 16.2.6, 16.2.9
162	1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one		P ↓ S/P												

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
163	2- or 3-Chloropropionic acid			3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 16.2.9 ↓ 15.11.2~15.11.4 15.11.6~15.11.8, 15.12.3, 15.12.4, 15.19, 16.2.9
164	Chlorosulphonic acid														15.11.2~15.11.8 15.12 15.16.2 15.19 ↓ 15.11.2~15.11.8 15.12 15.16.2, 15.17, 15.18, 15.19
165	m-Chlorotoluene												AB ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19
166	o-Chlorotoluene		S/P ↓ P									FT ↓ F	AB ↓ ABC		
167	p-Chlorotoluene		S/P ↓ P									FT ↓ F	AB ↓ ABC		
168	Chlorotoluenes (mixed isomers)		S/P ↓ P									FT ↓ F	AB ↓ ABC		
169	Choline chloride solutions												A ↓ AC		
170	Citric acid (70% or less)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.12, 15.17, 15.19 ↓ 15.12.3, 15.12.4, 15.19
171	Coal tar										R ↓ C	No ↓ T			15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19.6 16.2.6 16.2.9
172	Coal tar naphtha solvent										R ↓ C		AD ↓ ABC		15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19.6 16.2.9
173	Coal tar pitch (molten) ↓ Coal tar pitch (molten) (*)										R ↓ C	No ↓ T	BD ↓ ABCD		15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19.6 16.2.6 16.2.9
174	Cocoa butter														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
175	Coconut oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
176	Coconut oil fatty acid														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
177	Coconut oil fatty acid methyl ester												A ↓ ABC		
178	Copper salt of long chain (C17+) alkanoic acid												A ↓ ABC		
179	Corn Oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
180	Cotton seed oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
181	Creosote (coal tar)			2 ↓ 1							R ↓ C				15.12.3 15.12.4 15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19.6 16.2.6 16.2.9
182	Cresols (all isomers)			2 ↓ 1		Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12 15.18 15.19, 16.2.9
183	Cresol/Phenol/Xylenol mixture							↓ -	↓ -						
184	Cresylic acid, dephenolized					Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12 15.17 15.19
185	Cresylic acid, sodium salt solution					Open ↓ Cont		↓ T4	↓ IIB	Yes ↓ No	O ↓ C	No ↓ FT	No ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
186	Crotonaldehyde		Y ↓ X	2 ↓ 1	2G ↓ 1G						R ↓ C		A ↓ AC		15.12 15.17 15.19.6 ↓ 15.12 15.17 15.18 15.19
187	1,5,9-Cyclododecatriene			1 ↓ 2		Cont ↓ Open					R ↓ O	T ↓ No	A ↓ AC		15.13 15.19 16.6.1~16.6.2 ↓ 15.13 15.19.6, 16.6.1~16.6.2
188	Cycloheptane		P ↓ S/P										A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
189	Cyclohexane		P ↓ S/P										A ↓ AC		
190	Cyclohexane-1,2-dicarboxylic acid, diisononyl ester							↓ -	↓ -						
191	Cyclohexane oxidation products, sodium salts solution							↓ -	↓ -						
192	Cyclohexanol												AB ↓ ABC		
193	Cyclohexanone											FT ↓ F	A ↓ AC		
194	Cyclohexanone, Cyclohexanol mixture											FT ↓ F	A ↓ AC		
195	Cyclohexyl acetate		P ↓ S/P					T4 ↓ T2				F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
196	Cyclohexylamine										R ↓ C			No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
197	1,3-Cyclopentadiene dimer (molten)		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19, 16.2.6, 16.2.9
198	Cyclopentane												A ↓ AC		
199	Cyclopentene		P ↓ S/P	2 ↓ 3									A ↓ AC		
200	p-Cymene		P ↓ S/P										A ↓ AC		
201	Decahydronaphthalene		P ↓ S/P									F ↓ FT	AB ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
202	Decanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
203	Decene												A ↓ AC		
204	Decyl acrylate					Open ↓ Cont		T3 ↓ -	IIA ↓ -		O ↓ R	No ↓ T	ACD ↓ ABC		15.13 15.19 16.6.1~16.6.2 ↓ 15.12.3, 15.12.4, 15.13, 15.19, 16.6.1, 16.6.2
205	Decyl alcohol (all isomers)												A ↓ AC		
206	Decyl/Dodecyl/Tetradecyl alcohol mixture	No change													
207	Decyloxytetrahydrothiophene dioxide					Cont ↓ Open					R ↓ O	T ↓ No	A ↓ AC		
208	Diacetone alcohol		P ↓ S/P									F ↓ FT	A ↓ AC		↓ 15.12.3, 15.12.4, 15.19.6
209	Dialkyl (C8-C9) diphenylamines												AB ↓ ABC		
210	Dialkyl (C7-C13) phthalates		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC		15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19.6, 16.2.6
211	Dialkyl (C9-C10) phthalates	No change													
212	Dialkyl thiophosphates sodium salts solution	No change													
213	2,6-Diaminohexanoic acid phosphonate mixed salts solution							↓ -	↓ -						
214	Dibromomethane					Cont ↓ Open					R ↓ O	T ↓ No			15.12.3 15.19 ↓ 15.19.6
215	Dibutylamine			3 ↓ 2							R ↓ C		ACD ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
216	Dibutyl hydrogen phosphonate		P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
217	2,6-Di-tert-butylphenol		P ↓ S/P	1 ↓ 2									ABCD ↓ ABC		15.19 16.2.9 ↓ 15.19.6, 16.2.9
218	Dibutyl phthalate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
219	Dibutyl terephthalate	No change													
220	Dichlorobenzene (all isomers)										R ↓ C				15.19.6 ↓ 15.12, 15.17, 15.19.6
221	3,4-Dichloro-1-butene										C ↓ R			Yes ↓ No	15.12.3 15.17 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
222	1,1-Dichloroethane											FT ↓ F	A ↓ AC	Yes ↓ No	
223	Dichloroethyl ether										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.18, 15.19
224	1,6-Dichlorohexane		S/P ↓ P			Cont ↓ Open					R ↓ O	T ↓ No	AB ↓ ABC		
225	2,2-Dichloroisopropyl ether ↓ 2,2'-Dichloroisopropyl ether												ACD ↓ ABC		15.12 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.19
226	Dichloromethane										Yes ↓ No	R ↓ C	T ↓ FT	No ↓ ABC	15.19.6 ↓ 15.12, 15.17, 15.19.6
227	2,4-Dichlorophenol											R ↓ C	A ↓ AD	No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.16.2, 15.17, 15.19, 16.2.6, 16.2.9
228	2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
229	2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
230	2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.6, 16.2.9
231	1,1-Dichloropropane							T4 ↓ T1				FT ↓ F	AB ↓ ABC		15.12 15.19.6 ↓ 15.19.6
232	1,2-Dichloropropane			2 ↓ 3									AB ↓ ABC		15.12 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
233	1,3-Dichloropropene												AB ↓ ABC		15.12 15.17~15.19 ↓ 15.12, 15.17, 15.19
234	Dichloropropene/Dichloropropane mixtures													Yes ↓ No	15.12 15.17~15.19 ↓ 15.12, 15.17, 15.19
235	2,2-Dichloropropionic acid			3 ↓ 2							R ↓ C	No ↓ T	A ↓ AD	No ↓ Yes	15.11.2 15.11.4 15.11.6 15.11.7 15.11.8 15.19.6 16.2.9 ↓ 15.11.2 15.11.4 15.11.6 15.11.7 15.11.8, 15.12, 15.16.2, 15.17, 15.19, 16.2.9
236	Dicyclopentadiene, Resin Grade, 81-89%	No change													
237	Diethanolamine					Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.6, 16.2.9
238	Diethylamine										R ↓ C		A ↓ AC		15.12 15.19.6 ↓ 15.12, 15.17, 15.19
239	Diethylaminoethanol														15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
240	2,6-Diethylaniline			3 ↓ 2		Open ↓ Cont					O ↓ R	No ↓ T	BCD ↓ ABC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
241	Diethylbenzene		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
242	Diethylene glycol		↓ S/P	↓ 3	↓ 2G	↓ Cont	↓ No	↓	↓	↓ Yes	↓ R	↓ T	↓ AC	↓ No	↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
243	Diethylene glycol dibutyl ether												A ↓ AC		
244	Diethylene glycol diethyl ether		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		↓ 15.12.3, 15.12.4, 15.19.6
245	Diethylene glycol phthalate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6
246	Diethylenetriamine					Open ↓ Cont		T2 ↓ -	IIA ↓ -		O ↓ C	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12, 15.17, 15.19
247	Diethylenetriaminepentaacetic acid, pentasodium salt solution												A ↓ AC		
248	Diethyl ether ↓ Diethyl ether (*)										C ↓ R	FT ↓ F	A ↓ AC	Yes ↓ No	
249	Di-(2-ethylhexyl) adipate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC		15.19.6 ↓ 15.12, 15.17, 15.19.6
250	Di-(2-ethylhexyl) phosphoric acid					Open ↓ Cont					O ↓ R	No ↓ T			15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
251	Diethyl phthalate		P ↓ S/P										A ↓ AC		
252	Diethyl sulphate												A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
253	Diglycidyl ether of bisphenol A		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
254	Diglycidyl ether of bisphenol F		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19.6, 16.2.6
255	Diheptyl phthalate		P ↓ S/P										AB ↓ ABC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
256	Di-n-hexyl adipate		P ↓ S/P										A ↓ AC		
257	Dihexyl phthalate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC		15.19.6 ↓ 15.12, 15.17, 15.19.6
258	Diisobutylamine										R ↓ C		ACD ↓ ABC		15.12.3 15.19.6 ↓ 15.12.3, 15.12.4, 15.19
259	Diisobutylene												A ↓ AC		
260	Diisobutyl ketone		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
261	Diisobutyl phthalate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
262	Diisononyl adipate		P ↓ S/P										A ↓ AC		
263	Diisooctyl phthalate		P ↓ S/P										AB ↓ ABC		
264	Diisopropanolamine		S/P ↓ P					T2 ↓ -	IIA ↓ -				A ↓ AC		
265	Diisopropylamine			2 ↓ 3							C ↓ R		A ↓ AC	Yes ↓ No	15.12 15.19 ↓ 15.12.3, 15.12.4, 15.17, 15.19.6
266	Diisopropylbenzene (all isomers)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
267	Diisopropylnaphthalene		P ↓ S/P										A ↓ AC		
268	N,N-Dimethylacetamide										C ↓ R		ACD ↓ AC		15.12 15.17 ↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
269	N,N-Dimethylacetamide solution (40% or less)									Yes ↓ NF			B ↓ No		15.12.1 15.17 ↓ 15.12.3, 15.12.4, 15.19.6
270	Dimethyl adipate	X ↓ Y											A ↓ ABC		
271	Dimethylamine solution (45% or less)												ACD ↓ AC		15.12 15.19.6 ↓ 15.12.3, 15.12.4, 15.19
272	Dimethylamine solution (greater than 45% but not greater than 55%)			2 ↓ 3							C ↓ R		ACD ↓ AC	Yes ↓ No	15.12 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.19
273	Dimethylamine solution (greater than 55% but not greater than 65%)			2 ↓ 3							C ↓ R		ACD ↓ AC	Yes ↓ No	15.12 15.14 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.14, 15.19
274	N,N-Dimethylcyclohexylamine										R ↓ C			No ↓ Yes	15.12 15.17 15.19.6 ↓ 15.12 15.17 15.19
275	Dimethyl disulphide												B ↓ ABC		
276	N,N-Dimethyldodecylamine	X ↓ Y		1 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	B ↓ ABC	No ↓ Yes	15.19 ↓ 15.12 15.17 15.19
277	Dimethylethanolamine												AD ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
278	Dimethylformamide										R ↓ C		AD ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
279	Dimethyl glutarate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
280	Dimethyl hydrogen phosphite							↓ T4	↓ IIB	Yes ↓ No		T ↓ F	AD ↓ AC		15.12.1 15.19.6 ↓ 15.19.6
281	Dimethyl octanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		16.2.6 16.2.9 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
282	Dimethyl phthalate		P ↓ S/P										A ↓ AC		
283	Dimethylpolysiloxane			3 ↓ 2									AB ↓ ABC		
284	2,2-Dimethylpropane-1,3-diol (molten or solution)												AB ↓ ABC		
285	Dimethyl succinate			3 ↓ 2									A ↓ AC		16.2.9 ↓ 15.19.6, 16.2.9
286	Dinitrotoluene (molten)												A ↓ AC		
287	Dinonyl phthalate		P ↓ S/P										A ↓ AC		
288	Dioctyl phthalate	X ↓ Y	P ↓ S/P										AB ↓ ABC		
289	1,4-Dioxane			2 ↓ 3									A ↓ AC		15.12 15.19 16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.9
290	Dipentene		P ↓ S/P	3 ↓ 2							R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
291	Diphenyl		P ↓ S/P										B ↓ ABC		
292	Diphenylamine (molten)		P ↓ S/P										BD ↓ ABC		
293	Diphenylamine, reaction product with 2,2,4-Trimethylpentene			1 ↓ 2									A ↓ AC		
294	Diphenylamines, alkylated		P ↓ S/P										A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.19 16.2.6 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
295	Diphenyl/Diphenyl ether mixtures		P ↓ S/P										B ↓ ABC		
296	Diphenyl ether												A ↓ AC		
297	Diphenyl ether/Diphenyl phenyl ether mixture												A ↓ AC		
298	Diphenylmethane diisocyanate							↓ -	↓ -				ABCD(b) ↓ AB(b)D	No ↓ Yes	15.12 15.16.2 15.17 15.19.6 16.2.6 16.2.9 ↓ 15.12 15.16.2 15.17 15.19 16.2.6 16.2.9
299	Diphenylol propane-epichlorohydrin resins		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
300	Di-n-propylamine										R ↓ C		A ↓ AC	No ↓ Yes	15.12.3 15.19.6 ↓ 15.12.3, 15.12.4, 15.17, 15.19.6
301	Dipropylene glycol												A ↓ AC		
302	Dithiocarbamate ester (C7-C35)		P ↓ S/P										AD ↓ ABC		15.19.6 16.2.9 ↓ 15.19.6
303	Ditridecyl adipate					Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6
304	Ditridecyl phthalate												A ↓ AC		
305	Diundecyl phthalate		P ↓ S/P										AB ↓ ABC		
306	Dodecane (all isomers)		P ↓ S/P										AB ↓ ABC		
307	tert-Dodecanethiol							↓ -	↓ -		C ↓ R			Yes ↓ No	15.12 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i'"					
308	1-Dodecene			2 ↓ 3				↓ -	↓ -						
309	Dodecene (all isomers)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
310	Dodecyl alcohol		P ↓ S/P										A ↓ AC		
311	n-Dodecyl mercaptan							↓ -	↓ -						
312	Dodecylamine/Tetradecylamine mixture										R ↓ C		AD ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
313	Dodecylbenzene	Z ↓ Y	P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		↓ 15.12.3, 15.12.4, 15.19.6
314	Dodecyl diphenyl ether disulphonate solution					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19, 16.2.6
315	Dodecyl hydroxypropyl sulphide												A ↓ AC		
316	Dodecyl methacrylate	Z ↓ Y											A ↓ AC		15.13 ↓ 15.13, 15.19.6
317	Dodecyl/Octadecyl methacrylate mixture												A ↓ AC		
318	Dodecyl/Pentadecyl methacrylate mixture												AD ↓ ABC		
319	Dodecyl phenol		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19, 16.2.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
320	Dodecyl Xylene		P ↓ S/P										AB ↓ ABC		
321	Drilling brines (containing zinc chloride)		P ↓ S/P					- ↓	- ↓	Yes ↓ NF				No ↓ Yes	
322	Drilling brines (containing calcium bromide)		P ↓ S/P					- ↓	- ↓	Yes ↓ NF			A ↓ No		↓ 15.19.6
323	Epichlorohydrin												A ↓ AC		
324	Ethanolamine					Open ↓ Cont					O ↓ C		A ↓ AC	No ↓ Yes	16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
325	2-Ethoxyethyl acetate		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
326	Ethoxylated long chain (C16+) alkyloxyalkylamine					Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
327	Ethoxylated tallow amine (>95%)	No change													
328	Ethyl acetate		P ↓ S/P										AB ↓ ABC		↓ 15.19.6
329	Ethyl acetoacetate		P ↓ S/P										A ↓ AC		
330	Ethyl acrylate										R ↓ C		A ↓ AC	Yes ↓ No	15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
331	Ethylamine ↓ Ethylamine (*)											FT ↓ F	CD ↓ AC	Yes ↓ No	15.12 15.14 15.19.6 ↓ 15.12.3.2, 15.14 15.19
332	Ethylamine solutions (72% or less)			2 ↓ 3								FT ↓ F		Yes ↓ No	15.12 15.14 15.17 15.19 ↓ 15.12.3.2, 15.14 15.19

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
333	Ethyl amyl ketone		P ↓ S/P	3 ↓ 2								F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
334	Ethylbenzene		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
335	Ethyl tert-butyl ether		P ↓ S/P	3 ↓ 2								F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
336	Ethyl butyrate		P ↓ S/P	3 ↓ 2				T4 ↓ T2				F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
337	Ethylcyclohexane		P ↓ S/P					T4 ↓ T3					A ↓ AC		
338	N-Ethylcyclohexylamine										R ↓ C		A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19
339	S-Ethyl dipropylthiocarbamate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.9
340	Ethylene carbonate		↓ S/P	↓ 3	↓ 2G	↓ Cont	↓ No	↓	↓	↓ Yes	↓ R	↓ T	↓ AC	↓ No	↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
341	Ethylene chlorohydrin			2 ↓ 1									AD ↓ AC		15.12 15.17 15.19 ↓ 15.12 15.17 15.18 15.19
342	Ethylene cyanohydrin			3 ↓ 2		Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
343	Ethylenediamine										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
344	Ethylenediaminetetraacetic acid, tetrasodium salt solution					Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
345	Ethylene dibromide													Yes ↓ No	15.12 15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
346	Ethylene dichloride			2 ↓ 3							R ↓ C		AB ↓ ABC		15.19 ↓ 15.12, 15.17, 15.19
347	Ethylene glycol	Y ↓ Z	P ↓ S/P										A ↓ AC		
348	Ethylene glycol acetate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
349	Ethylene glycol butyl ether acetate		P ↓ S/P										A ↓ AC		
350	Ethylene glycol diacetate		P ↓ S/P	3 ↓ 2									A ↓ AC		
351	Ethylene glycol methyl ether acetate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
352	Ethylene glycol monoalkyl ethers										R ↓ C	F ↓ FT	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19, 16.2.9
353	Ethylene glycol phenyl ether		P ↓ S/P										A ↓ AC		
354	Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
355	Ethylene glycol (>75%)/sodium alkyl carboxylates/borax mixture							↓ -	↓ -						
356	Ethylene glycol (>85%)/sodium alkyl carboxylates mixture	No change													
357	Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass													No ↓ Yes	15.8 15.12 15.14 15.19 ↓ 15.8 15.12 15.14 15.17 15.19
358	Ethylene-vinyl acetate copolymer (emulsion)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
359	Ethyl-3-ethoxypropionate			3 ↓ 2								No ↓ F	A ↓ AC		
360	2-Ethylhexanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
361	2-Ethylhexyl acrylate					Open ↓ Cont		T3 ↓ -	IIB ↓ -		O ↓ R	No ↓ T	A ↓ ABC		15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12.3, 15.12.4, 15.13 15.19.6 16.6.1~16.6.2
362	2-Ethylhexylamine										R ↓ C		A ↓ AC	No ↓ Yes	15.12 15.19.6 ↓ 15.12, 15.17, 15.19.6
363	2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester												AB ↓ ABC		
364	Ethylidene norbornene												AD ↓ ABC		15.12.1 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
365	Ethyl methacrylate											FT ↓ F	AD ↓ ABC		
366	N-Ethylmethylallylamine											F ↓ FT		Yes ↓ No	15.12.3 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.19
367	Ethyl propionate		P ↓ S/P			Open ↓ Cont						F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
368	2-Ethyl-3-propylacrolein											FT ↓ F	A ↓ AC		
369	Ethyl toluene							T4 ↓ T1					A ↓ ABC		
370	Fatty acid (saturated C13+)		P ↓ S/P										AB ↓ ABC		
371	Fatty acid methyl esters (m)	No change													

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
372	Fatty acids, (C8-C10)										R ↓ C			No ↓ Yes	15.12.3 15.12.4 15.19 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.6, 16.2.9
373	Fatty acids, (C12+)					Cont ↓ Open					R ↓ O	T ↓ No			15.12.3 15.12.4 15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
374	Fatty acids, (C16+)	No change													
375	Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester		P ↓ S/P										AB ↓ ABC		
376	Ferric chloride solutions					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.11 15.19.6 16.2.9 ↓ 15.11, 15.12, 15.17, 15.19 16.2.9
377	Ferric nitrate/Nitric acid solution										R ↓ C				15.11 15.19 ↓ 15.11, 15.12, 15.17, 15.19
378	Fish oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6, 16.2.6, 16.2.7, 16.2.9
379	Fish silage protein concentrate (containing 4% or less formic acid)							- ↓	- ↓						
380	Fish protein concentrate (containing 4% or less formic acid)	No change													
381	Fluorosilicic acid solution (20-30%)			2 ↓ 3				- ↓	- ↓						
382	Formaldehyde solutions (45% or less)										R ↓ C		A ↓ AC		15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
383	Formamide		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.9
384	Formic acid (85% or less acid)										R ↓ C		A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 15.12.3~15.12.4 15.19.6 16.2.9 ↓ 15.11.2~15.11.4 15.11.6~15.11.8 15.12.3~15.12.4 15.17 15.19 16.2.9
385	Formic acid (over 85%)										R ↓ C		A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 15.12.3~15.12.4 15.19.6 16.2.9 ↓ 15.11.2~15.11.4 15.11.6~15.11.8 15.12.3~15.12.4 15.17 15.19 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
386	Formic acid mixture (containing up to 18% propionic acid and up to 25% sodium formate)														
387	Furfural										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
388	Furfuryl alcohol		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
389	Glucitol/glycerol blend propoxylated (containing less than 10% amines)	No change													
390	Glucitol/glycerol blend propoxylated (containing 10% or more amines)							- ↓	- ↓						
391	Glutaraldehyde solutions (50% or less)					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
392	Glycerine		↓ S	↓ 3	↓ 2G	↓ Open	↓ No	↓	↓	↓ Yes	↓ O	↓ No	↓ AC	↓ No	↓ 16.2.9
393	Glycerol monooleate		P ↓ S/P										A ↓ AC		
394	Glycerol propoxylated	No change													
395	Glycerol, propoxylated and ethoxylated	No change													
396	Glycerol/sucrose blend propoxylated and ethoxylated	No change													
397	Glyceryl triacetate		P ↓ S/P										AB ↓ ABC		↓ 15.19.6
398	Glycidyl ester of C10 trialkylacetic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3 15.12.4 15.19.6
399	Glycine, sodium salt solution		P ↓ S/P							Yes ↓ NF			A ↓ No		
400	Glycolic acid solution (70% or less)					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.17, 15.19, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
401	Glyoxal solution (40% or less)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
402	Glyoxylic acid solution (50% or less)					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.11.2 15.11.3 15.11.4 15.11.6~15.11.8 15.19.6 16.2.9 16.6.1~16.6.3 ↓ 15.11.2 15.11.3 15.11.4 15.11.6~15.11.8 15.12 15.17 15.19 16.2.9 16.6.1~16.6.3
403	Glyphosate solution (not containing surfactant)		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
404	Grape Seed Oil							- ↓	- ↓						15.19.6 16.2.9 ↓ 15.19.6, 16.2.6, 16.2.7
405	Groundnut oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
406	Heptane (all isomers)												A ↓ AC		15.19.6 16.2.9 ↓ 15.19.6
407	n-Heptanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R		AB ↓ ABC		↓ 15.19.6, 15.17
408	Heptanol (all isomers) (d)		P ↓ S/P									F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
409	Heptene (all isomers)			3 ↓ 2				T4 ↓ T3					A ↓ ABC		
410	Heptyl acetate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
411	1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture		P ↓ S/P										AB ↓ ABC		
412	Hexamethylenediamine (molten)			2 ↓ 3											15.12 15.17 15.18 15.19 16.2.9 ↓ 15.12 15.17 15.19 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
413	Hexamethylenediamine adipate (50% in water)												A ↓ AC		
414	Hexamethylenediamine solution										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
415	Hexamethylene diisocyanate				1G ↓ 2G										
416	Hexamethylene glycol		P ↓ S/P										A ↓ AC		
417	Hexamethyleneimine							T4 ↓ T2							15.19.6 ↓ 15.12.3, 15.12.4, 15.19
418	Hexamethylenetetramine solutions		↓ S	↓ 3	↓ 2G	↓ Open	↓ No	↓	↓	↓ Yes	↓ O	↓ No	↓ AC	↓ No	↓ 15.19.6
419	Hexane (all isomers)		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
420	1,6-Hexanediol, distillation overheads		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		
421	Hexanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
422	Hexanol		P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
423	Hexene (all isomers)		P ↓ S/P										A ↓ AC		
424	Hexyl acetate		P ↓ S/P										A ↓ AC		
425	Hexylene glycol		↓ S	↓ 3	↓ 2G	↓ Cont	↓ No	↓	↓	↓ Yes	↓ C	↓ T	↓ AC	↓ Yes	↓ 15.12, 15.17, 15.19

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
426	Hydrocarbon wax	No change													
427	Hydrochloric acid ↓ Hydrochloric acid (*)										R ↓ C				15.11 ↓ 15.11 15.12 15.17 15.19
428	Hydrogen peroxide solutions (over 60% but not over 70% by mass)										C ↓ R	No ↓ T			15.5.1 15.19.6 ↓ 15.5.1 15.12.3 15.12.4 15.19.6
429	Hydrogen peroxide solutions (over 8% but not over 60% by mass)										C ↓ R	No ↓ T			15.5.2 15.18 15.19.6 ↓ 15.5.2 15.12.3 15.12.4 15.18 15.19.6
430	2-Hydroxyethyl acrylate												A ↓ AC	No ↓ Yes	15.12~15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12~15.13 15.17 15.19 16.6.1~16.6.2
431	N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
432	2-Hydroxy-4-(methylthio)butanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	↓ 15.12, 15.17, 15.19
433	Illipe oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
434	Isoamyl alcohol		P ↓ S/P									F ↓ FT	AB ↓ ABC		↓ 15.12.3, 15.12.4, 15.19.6
435	Isobutyl alcohol		P ↓ S/P										AB ↓ ABC		↓ 15.19.6
436	Isobutyl formate							T4 ↓ T2					AB ↓ ABC		↓ 15.19.6
437	Isobutyl methacrylate		P ↓ S/P					T2 ↓ T1					A ↓ ABC		15.12 15.13 15.17 16.6.1~16.6.2 ↓ 15.13, 15.19.6, 16.6.1, 16.6.2
438	Isophorone											No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
439	Isophoronediamine										R ↓ C		A ↓ AC	No ↓ Yes	16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
440	Isophorone diisocyanate	X ↓ Y												No ↓ Yes	15.12 15.16.2 15.17 15.19.6 ↓ 15.12 15.16.2 15.17 15.19
441	Isoprene			3 ↓ 2							R ↓ C	F ↓ FT	B ↓ ABC		15.13~15.14 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13~15.14, 15.17, 15.19.6 16.6.1~16.6.2
442	Isopropanolamine					Open ↓ Cont					O ↓ R	FT ↓ No	A ↓ AC		
443	Isopropyl acetate												AB ↓ ABC		↓ 15.19.6
444	Isopropylamine			2 ↓ 3									CD ↓ AC	Yes ↓ No	15.12 15.14 15.19 ↓ 15.12.3.2, 15.14, 15.19
445	Isopropylamine (70% or less) solution			2 ↓ 3									CD ↓ AC	Yes ↓ No	15.12 15.19.6 16.2.9 ↓ 15.12.3.2, 15.19
446	Isopropylcyclohexane		P ↓ S/P					T4 ↓ T3					A ↓ AC		
447	Isopropyl ether												A ↓ AC		15.4.6 15.13.3 15.19.6 ↓ 15.4.6 15.13 15.19.6 16.6.1, 16.6.2
448	Jatropha oil														15.19.6 16.2.6 ↓ 15.19.6 16.2.6 16.2.7
449	Lactic acid		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	↓ 15.12, 15.17, 15.19
450	Lactonitrile solution (80% or less)			2 ↓ 1							Yes ↓ NF		ACD ↓ No		
451	Lard														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
452	Latex, ammonia (1% or less)- inhibited			3 ↓ 2									A ↓ AC		
453	Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber		P ↓ S/P										A ↓ AC		
454	Lauric acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
455	Ligninsulphonic acid, magnesium salt solution	No change													
456	Ligninsulphonic acid, sodium salt solution												A ↓ AC		
457	Linseed oil	No change													
458	Liquid chemical wastes							- ↓	- ↓				A ↓ AC	Yes ↓ No	15.12 15.19.6 20.5.1 ↓ 15.12, 15.17, 15.19, 20.5.1, 20.7
459	Long-chain alkaryl polyether (C11-C20)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		16.2.6 16.2.9 15.19.6 ↓ 15.12.3, 15.12.4, 16.2.6 16.2.9 15.19.6
460	Long-chain alkaryl sulphonic acid (C16-C60)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
461	Long-chain alkylphenate/Phenol sulphide mixture		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
462	Long-chain alkylphenol (C14-C18)							- ↓	- ↓						
463	Long-chain alkylphenol (C18-C30)							- ↓	- ↓						
464	L-Lysine solution (60% or less)												A ↓ AC		
465	Magnesium chloride solution												A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i‴					
466	Magnesium hydroxide slurry		↓ S	↓ 3	↓ 2G	↓ Open	↓ No	↓ -	↓ -	↓ NF	↓ O	↓ No	↓ No	↓ No	↓ 16.2.9
467	Magnesium long-chain alkaryl sulphonate (C11-C50)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
468	Magnesium long-chain alkyl salicylate (C11+)		P ↓ S/P										AB ↓ ABC		
469	Maleic anhydride										R ↓ C	No ↓ T		No ↓ Yes	16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
470	Maleic anhydride-sodium allylsulphonate copolymer solution							- ↓	- ↓						
471	Mango kernel oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
472	Mercaptobenzothiazol, sodium salt solution	No change													
473	Mesityl oxide												A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
474	Metam sodium solution													Yes ↓ No	15.12 15.17 15.19 ↓ 15.12.3, 15.12.4, 15.19
475	Methacrylic acid										R ↓ C		A ↓ AC		15.13 15.19.6 16.2.9 16.6.1 ↓ 15.13, 15.12.3, 15.12.4, 15.19, 16.2.9, 16.6.1
476	Methacrylic acid - alkoxypoly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)												AC ↓ No		
477	Methacrylic resin in ethylene dichloride			2 ↓ 3							R ↓ C		AB ↓ ABC		15.19 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
478	Methacrylonitrile												A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
479	3-Methoxy-1-butanol		P ↓ S/P										A ↓ AC		↓ 15.19.6
480	3-Methoxybutyl acetate		P ↓ S/P										AB ↓ ABC		
481	N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19 16.2.6 ↓ 15.12.3, 15.12.4, 15.19, 16.2.6
482	Methyl acetate												A ↓ AC		↓ 15.19.6
483	Methyl acetoacetate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		↓ 15.12.3, 15.12.4, 15.19.6
484	Methyl acrylate			2 ↓ 3							R ↓ C		A ↓ AC	Yes ↓ No	15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19
485	Methyl alcohol ↓ Methyl alcohol (*)		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.1, 15.12.2, 15.12.3.2, 15.12.3.3, 15.12.4, 15.17, 15.19
486	Methylamine solutions (42% or less)												ACD ↓ AC		
487	Methylamyl acetate												A ↓ ABC		
488	Methylamyl alcohol		P ↓ S/P									F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
489	Methyl amyl ketone		P ↓ S/P										A ↓ ABC		
490	N-Methylaniline	No change													
491	alpha-Methylbenzyl alcohol with acetophenone (15% or less)	No change													
492	Methylbutenol		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
493	Methyl tert-butyl ether												AB ↓ ABC		↓ 15.19.6
494	Methyl butyl ketone		P ↓ S/P								R ↓ C	F ↓ FT	AB ↓ ABC		15.19.6 ↓ 15.12, 15.17, 15.19.6
495	Methylbutynol		P ↓ S/P										A ↓ AC		↓ 15.19.6
496	Methyl butyrate		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3 15.12.4 15.19.6
497	Methylcyclohexane		P ↓ S/P										A ↓ AC		
498	Methylcyclopentadiene dimer		P ↓ S/P									F ↓ FT	B ↓ ABC		15.19.6 ↓ 15.12.3 15.12.4 15.19.6
499	Methylcyclopentadienyl manganese tricarbonyl			1 ↓ 2	1G ↓ 2G								ABCD ↓ ABC		15.12 15.18~15.19 16.2.9 ↓ 15.12, 15.17, 15.18, 15.19 16.2.9
500	Methyl diethanolamine					Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12.3 15.12.4 15.19.6 16.2.6
501	2-Methyl-6-ethyl aniline					Open ↓ Cont					O ↓ R	No ↓ T	AD ↓ ABC		15.19.6 ↓ 15.12.3 15.12.4 15.19.6
502	Methyl ethyl ketone		P ↓ S/P										A ↓ AC		↓ 15.19.6
503	2-Methyl-5-ethyl pyridine			3 ↓ 2		Open ↓ Cont			IIA ↓ -		O ↓ C	No ↓ T	AD ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
504	Methyl formate												A ↓ AC	Yes ↓ No	15.12 15.14 15.19 ↓ 15.12.3, 15.12.4, 15.14, 15.19.6
505	2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)		S ↓ S/P	2 ↓ 3											

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
506	2-Methyl-2-hydroxy-3-butyne											FT ↓ F	ABD ↓ AC		
507	Methyl isobutyl ketone		P ↓ S/P									F ↓ FT	AB ↓ ABC		↓ 15.12.3 15.12.4 15.19.6
508	Methyl methacrylate			2 ↓ 3								FT ↓ F	A ↓ AC		15.13 15.19.6 16.6.1~16.6.2 ↓ 15.13, 15.19.6
509	3-Methyl-3-methoxybutanol		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		↓ 15.12.3 15.12.4 15.19.6
510	Methyl naphthalene (molten)											No ↓ T	AD ↓ ABC		15.19.6 ↓ 15.12.3 15.12.4 15.19.6
511	N-Methylglucamine solution (70% or less)		↓ S	↓ 3	↓ 2G	↓ Cont	↓ No	↓	↓	↓ Yes	↓ C	↓ T	↓ AC	↓ Yes	↓ 15.12, 15.17, 15.19, 16.2.9
512	2-Methyl-1,3-propanediol												A ↓ AC		
513	2-Methylpyridine			2 ↓ 3									A ↓ AC		15.12.3 15.19.6 ↓ 15.12.3.2, 15.19
514	3-Methylpyridine			2 ↓ 3								F ↓ FT			15.12.3 15.19 ↓ 15.12.3 15.12.4 15.19
515	4-Methylpyridine			2 ↓ 3									A ↓ AC		15.12.3 15.19 16.2.9 ↓ 15.12.3, 15.12.4, 15.19, 16.2.9
516	N-Methyl-2-pyrrolidone		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
517	Methyl propyl ketone		↓ S	↓ 3	↓ 2G	↓ Cont	↓ No	↓ T1	↓ IIA	↓ No	↓ R	↓ FT	↓ ABC	↓ No	↓ 15.12.3 15.12.4 15.19.6
518	Methyl salicylate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
519	alpha-Methylstyrene										R ↓ C				15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
520	3-(methylthio)propionaldehyde										C ↓ R		BC ↓ ABC	Yes ↓ No	15.12 15.17 15.19 ↓ 15.12 15.17 15.19,6
521	Molybdenum polysulphide long chain alkyl dithiocarbamide complex										C ↓ R			Yes ↓ No	15.12 15.17 15.19 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6 16.2.9
522	Morpholine										R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3 15.12.4 15.19
523	Motor fuel anti-knock compounds (containing lead alkyls) ↓ Motor fuel anti-knock compound (containing lead alkyls)						No ↓ Inert								15.6 15.12 15.18~15.19 ↓ 15.6 15.12, 15.17 15.18~15.19
524	Myrcene		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
525	Naphthalene (molten)										R ↓ C	No ↓ T	AD ↓ ABC		15.19.6 16.2.9 ↓ 15.12 15.17 15.19.6 16.2.9
526	Naphthalene crude (molten)							- ↓	- ↓						
527	Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution		P ↓ S/P										A ↓ AC		
528	Neodecanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
529	Nitrating acid (mixture of sulphuric and nitric acids)			2 ↓ 1	2G ↓ 1G										15.11 15.16.2 15.17 15.19 ↓ 15.11, 15.12, 15.16.2, 15.17, 15.18, 15.19
530	Nitric acid (70% and over)														15.11 15.19 ↓ 15.11, 15.12, 15.16.2, 15.17, 15.19
531	Nitric acid (less than 70%)										R ↓ C				15.11 15.19 ↓ 15.11, 15.12, 15.17, 15.19

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
532	Nitrilotriacetic acid, trisodium salt solution		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
533	Nitrobenzene							T1 ↓ -	IIA ↓ -				AD ↓ ABC		15.12 15.17~15.19 16.2.9 ↓ 15.12 15.17 15.19 16.2.9
534	Nitroethane												A(f) ↓ ABC(f)		15.19.6 16.6.1~16.6.2 16.6.4 ↓ 15.12.3, 15.12.4, 15.19.6 16.6.1~16.6.2 16.6.4
535	Nitroethane(80%)/ Nitropropane(20%)												A(f) ↓ ABC(f)		15.19.6 16.6.1~16.6.3 ↓ 15.12.3, 15.12.4, 15.19.6 16.6.1~16.6.3
536	Nitroethane, 1-Nitropropane (each 15% or more) mixture											F ↓ FT	A ↓ ABC(f)		15.19.6 16.2.6 16.6.1 16.6.2 16.6.3 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.6.1 16.6.2 16.6.3
537	o-Nitrophenol (molten)							↓ T4	↓ IIB	Yes ↓ No	C ↓ R	T ↓ F	AD ↓ ABC		15.12 15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.9
538	1- or 2-Nitropropane										R ↓ C		A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19
539	Nitropropane (60%)/Nitroethane (40%) mixture			3 ↓ 2				T4 ↓ T2			R ↓ C		A(f) ↓ ABC(f)		15.19.6 ↓ 15.12, 15.17, 15.19.6
540	o- or p-Nitrotoluenes												AB ↓ ABC		
541	Nonane (all isomers)		P ↓ S/P					T4 ↓ T3					BC ↓ ABC		
542	Nonanoic acid (all isomers)		P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
543	Non-edible industrial grade palm oil											No ↓ T			15.12.3 15.12.4 15.19.6 16.2.6 16.2.9 ↓ 15.12.3 15.12.4 15.19.6 16.2.6 16.2.7 16.2.9
544	Nonene (all isomers)												A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
545	Nonyl alcohol (all isomers)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
546	Nonyl methacrylate monomer		P ↓ S/P										AB ↓ ABC		
547	Nonylphenol		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19 16.2.6 16.2.9
548	Nonylphenol poly(4+)ethoxylate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6
549	Noxious liquid, NF, (1) n.o.s. (trade name ...., contains ....) ST1, Cat. X												A ↓ AC		
550	Noxious liquid, F, (2) n.o.s. (trade name ...., contains ....) ST1, Cat. X												A ↓ AC		
551	Noxious liquid, NF, (3) n.o.s. (trade name ...., contains ....) ST2, Cat. X												A ↓ AC		
552	Noxious liquid, F, (4) n.o.s. (trade name ...., contains ....) ST2, Cat. X												A ↓ AC		
553	Noxious liquid, NF, (5) n.o.s. (trade name ...., contains ....) ST2, Cat. Y												A ↓ AC		
554	Noxious liquid, F, (6) n.o.s. (trade name ...., contains ....) ST2, Cat. Y												A ↓ AC		
555	Noxious liquid, NF, (7) n.o.s. (trade name ...., contains ....) ST3, Cat. Y												A ↓ AC		
556	Noxious liquid, F, (8) n.o.s. (trade name ...., contains ....) ST3, Cat. Y												A ↓ AC		
557	Noxious liquid, NF, (9) n.o.s. (trade name ...., contains ....) ST3, Cat. Z												A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
558	Noxious liquid, F, (10) n.o.s. (trade name ...., contains ....) ST3, Cat. Z												A ↓ AC		↓ 15.19.6
559	Octamethylcyclotetrasiloxane	No change													
560	Octane (all isomers)												A ↓ AC		
561	Octanoic acid (all isomers)		P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	A ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
562	Octanol (all isomers)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		↓ 15.12.3, 15.12.4, 15.19.6
563	Octene (all isomers)												A ↓ AC		
564	n-Octyl acetate		P ↓ S/P										A ↓ AC		
565	Octyl aldehydes		P ↓ S/P										A ↓ AC		
566	Octyl decyl adipate		P ↓ S/P										A ↓ AC		
567	n-Octyl mercaptan					Cont ↓ Open		- ↓	- ↓		C ↓ O	T ↓ No		Yes ↓ No	15.12 15.17 15.19 ↓ 15.19
568	Offshore contaminated bulk liquid P (o)	No change													
569	Offshore contaminated bulk liquid S (o)	No change													
570	Olefin-Alkyl ester copolymer (molecular weight 2000+)												AB ↓ ABC		
571	Olefin Mixture (C7-C9) C8 rich, stabilized		S/P ↓ P												
572	Olefin mixtures (C5-C7)		P ↓ S/P										A ↓ AC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
573	Olefin mixtures (C5-C15)		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
574	Olefins (C13+, all isomers)												AB ↓ ABC		
575	alpha-Olefins (C6-C18) mixtures		P ↓ S/P									F ↓ FT	A ↓ AC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
576	Oleic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
577	Oleum						No ↓ Dry								15.11.2~15.11.8 15.12.1 15.16.2 15.17 15.19 16.2.6 ↓ 15.11.2～15.11.8, 15.12, 15.16.2, 15.17, 15.19, 16.2.6
578	Oleylamine										R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
579	Olive oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
580	Oxygenated aliphatic hydrocarbon mixture	No change													
581	Palm acid oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
582	Palm fatty acid distillate														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
583	Palm kernel acid oil					Open ↓ Cont					O ↓ R	No ↓ T			15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6, 16.2.7 16.2.9
584	Palm kernel fatty acid distillate														15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6, 16.2.7 16.2.9
585	Palm kernel oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
586	Palm kernel olein														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
587	Palm kernel stearin														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
588	Palm mid-fraction														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
589	Palm oil		S/P ↓ P												15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
590	Palm oil fatty acid methyl ester												A ↓ AC		
591	Palm olein														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
592	Palm stearin														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
593	Paraffin wax, highly-refined														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6, 16.2.7 16.2.9
594	Paraffin wax, semi-refined														
595	Paraldehyde												A ↓ AC		
596	Paraldehyde-ammonia reaction product							T4 ↓ T1					A ↓ ABC	No ↓ Yes	15.12.3 15.19 ↓ 15.12, 15.17, 15.19
597	Pentachloroethane										R ↓ C				
598	1,3-Pentadiene		S/P ↓ P									FT ↓ F	AB ↓ ABC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
599	1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures	No change													
600	Pentaethylenehexamine					Open ↓ Cont					O ↓ C	No ↓ T	B ↓ ABC		15.19 ↓ 15.12, 15.17, 15.19
601	Pentane (all isomers)												A ↓ AC		
602	Pentanoic acid		P ↓ S/P	3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
603	n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture					Open ↓ Cont		T2 ↓				No ↓ T	AD ↓ ABC	No ↓ Yes	15.11.2~15.11.4 15.11.6~15.11.8 15.12.3 15.19 ↓ 15.11.2~15.11.4 15.11.6~15.11.8 15.12, 15.17 15.19
604	Pentene (all isomers)			3 ↓ 2									A ↓ AC		
605	n-Pentyl propionate		P ↓ S/P					T4 ↓ T2				F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
606	Perchloroethylene										R ↓ C				15.12.1~15.12.2 15.19.6 ↓ 15.12, 15.17, 15.19.6
607	Phenol												A ↓ AC	No ↓ Yes	15.12 15.19 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
608	1-Phenyl-1-xylyl ethane		P ↓ S/P	3 ↓ 2									AB ↓ ABC		↓ 15.19.6
609	Phosphate esters, alkyl (C12-C14) amine		P ↓ S/P									F ↓ FT	A ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
610	Phosphoric acid					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.11.1~15.11.4 15.11.6~15.11.8 16.2.9 ↓ 15.11.1~15.11.4 15.11.6~15.11.8, 15.12, 15.17, 15.19, 16.2.9
611	Phosphorus, yellow or white ↓ Phosphorus, yellow or white (*)												C ↓ ABC	Yes ↓ No	

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
612	Phthalic anhydride (molten)										R ↓ C	No ↓ T	AD ↓ ABC	No ↓ Yes	15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19 16.2.6 16.2.9
613	alpha-Pinene		P ↓ S/P										A ↓ ABC		
614	beta-Pinene		P ↓ S/P					T4 ↓ T1					A ↓ ABC		
615	Pine oil		P ↓ S/P										A ↓ ABC		
616	Piperazine, 68% solution							- ↓	- ↓						
617	Polyacrylic acid solution (40% or less)	No change													
618	Polyalkyl (C18-C22) acrylate in xylene		P ↓ S/P					T4 ↓ T1				F ↓ FT	AB ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
619	Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	No change													
620	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether												A ↓ AC		
621	Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate												A ↓ ABC		
622	Polyalkyl (C10-C20) methacrylate												AB ↓ ABC		
623	Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture												AB ↓ ABC		
624	Polyaluminium chloride solution		↓ S	↓ 3	↓ 2G	↓ Open	↓ No			↓ NF	↓ O	↓ No	↓ No	↓ No	
625	Polybutene												A ↓ ABC		

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
626	Polybutenyl succinimide												A ↓ ABC		
627	Poly(2+)cyclic aromatics		P ↓ S/P								R ↓ C	No ↓ T	AD ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12, 15.17, 15.19 16.2.6 16.2.9
628	Polyether (molecular weight 1350+)												A ↓ ABC		
629	Polyethylene glycol												A ↓ AC		
630	Polyethylene glycol dimethyl ether		P ↓ S/P										A ↓ AC		
631	Poly(ethylene glycol) methylbutenyl ether (MW>1000)	No change													
632	Polyethylene polyamines					Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19 16.2.6 16.2.9
633	Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)					Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
634	Polyferric sulphate solution					Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
635	Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)												AC ↓ No		
636	Polyisobutenamine in aliphatic (C10-C14) solvent		P ↓ S/P	3 ↓ 2		Open ↓ Cont		T3 ↓ -	IIA ↓ -		O ↓ R	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
637	(Polyisobutene) amino products in aliphatic hydrocarbons							- ↓	- ↓						
638	Polyisobutenyl anhydride adduct		P ↓ S/P										AB ↓ ABC		

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
639	Poly(4+)isobutylene (MW>224)							- ↓	- ↓				AB ↓ ABC		
640	Polyisobutylene (MW≤224)							- ↓	- ↓				AB ↓ ABC		
641	Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)		↓ S	↓ 2	↓ 2G	↓ Cont	↓ No			↓ Yes	↓ C	↓ T	↓ AC	↓ Yes	↓ 15.12, 15.17, 15.19, 16.2.9
642	Polymethylene polyphenyl isocyanate			2 ↓ 3									A ↓ AD	No ↓ Yes	15.12 15.16.2 15.19.6 16.2.9 ↓ 15.12, 15.16.2, 15.17, 15.19.6, 16.2.9
643	Polyolefin (molecular weight 300+)		S/P ↓ P										A ↓ ABC		
644	Polyolefin amide alkeneamine (C17+)		P ↓ S/P										AB ↓ ABC		
645	Polyolefin amide alkeneamine borate (C28-C250)												AB ↓ ABC		
646	Polyolefin amide alkeneamine polyol	No change													
647	Polyolefinamine (C28-C250)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		16.2.9 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
648	Polyolefinamine in alkyl (C2-C4) benzenes		P ↓ S/P					T4 ↓ T2				F ↓ FT	A ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
649	Polyolefinamine in aromatic solvent		P ↓ S/P					T4 ↓ T2				F ↓ FT	A ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
650	Polyolefin aminoester salts (molecular weight 2000+)		P ↓ S/P										A ↓ ABC		
651	Polyolefin anhydride		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	AB ↓ ABC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
652	Polyolefin ester (C28-C250)												AB ↓ ABC		
653	Polyolefin phenolic amine (C28-C250)		P ↓ S/P										AB ↓ ABC		
654	Polyolefin phosphorosulphide, barium derivative (C28-C250)												AB ↓ ABC		
655	Poly(20)oxyethylene sorbitan monooleate			2 ↓ 3									A ↓ AC		
656	Poly(5+)propylene												A ↓ ABC		
657	Polypropylene glycol					Cont ↓ Open							ABC ↓ AC		
658	Polysiloxane			3 ↓ 2				T4 ↓ T2					AB ↓ ABC		
659	Potassium chloride solution		S/P ↓ P										A ↓ No		
660	Potassium hydroxide solution ↓ Potassium hydroxide solution (*)										O ↓ C				15.19.6 ↓ 15.12.3.2, 15.19
661	Potassium formate solutions (*)		↓ S	↓ 3	↓ 2G	↓ Open	↓ No			↓ NF	↓ R	↓ No	↓ No	↓ No	↓ 15.19.6
662	Potassium oleate		P ↓ S/P										A ↓ AC		
663	Potassium thiosulphate (50% or less)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T			16.2.9 15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
664	n-Propanolamine					Open ↓ Cont					O ↓ C	No ↓ T	AD ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
665	2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution		S/P ↓ P												
666	beta-Propiolactone			2 ↓ 1							R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12 15.17 15.18 15.19
667	Propionaldehyde						No ↓ Inert					FT ↓ F	A ↓ AC	Yes ↓ No	15.17 15.19.6 ↓ 15.19.6
668	Propionic acid										R ↓ C	F ↓ FT	A ↓ AC		15.11.2~15.11.4 15.11.6~15.11.8 15.19.6 ↓ 15.11.2~15.11.4 15.11.6~15.11.8, 15.12, 15.17, 15.19
669	Propionic anhydride			3 ↓ 2							R ↓ C		A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
670	Propionitrile			2 ↓ 1									AD ↓ AC		
671	n-Propyl acetate												AB ↓ ABC		
672	n-Propyl alcohol		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
673	n-Propylamine												AD ↓ AC		15.12 15.19 ↓ 15.12, 15.17, 15.19
674	Propylbenzene (all isomers)												A ↓ ABC		
675	Propylene carbonate		↓ S	↓ 3	↓ 2G	↓ Cont	↓ No			↓ Yes	↓ C	↓ T	↓ ABC	↓ Yes	↓ 15.12, 15.17, 15.19
676	Propylene glycol methyl ether acetate												A ↓ AC		
677	Propylene glycol monoalkyl ether		P ↓ S/P										AB ↓ AC		↓ 15.19.6

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
678	Propylene glycol phenyl ether		P ↓ S/P										AB ↓ ABC		
679	Propylene oxide														15.8 15.12.1 15.14 15.19 ↓ 15.8, 15.12, 15.14, 15.17, 15.19
680	Propylene tetramer		P ↓ S/P										A ↓ ABC		
681	Propylene trimer		P ↓ S/P										A ↓ ABC		
682	Pyridine											F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
683	Pyrolysis gasoline (containing benzene)												AB ↓ ABC		
684	Rapeseed oil		S/P ↓ P												15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
685	Rapeseed oil (low erucic acid containing less than 4% free fatty acids)		S/P ↓ P												15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
686	Rape seed oil fatty acid methyl esters		P ↓ S/P										A ↓ ABC		
687	Resin oil, distilled	No change													
688	Rice bran oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
689	Rosin		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
690	Safflower oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9

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No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
691	Shea butter														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
692	Sodium alkyl (C14-C17) sulphonates (60-65% solution)		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T			15.19.6 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6 16.2.6 16.2.9
693	Sodium aluminosilicate slurry									Yes ↓ NF			AB ↓ No		↓ 16.2.9
694	Sodium benzoate		P ↓ S/P										A ↓ AC		↓ 16.2.9
695	Sodium borohydride (15% or less) / Sodium hydroxide solution ↓ Sodium borohydride (15% or less)/Sodium hydroxide solution (*)										O ↓ C				15.19.6 16.2.6 16.2.9 ↓ 15.19 16.2.6 16.2.9
696	Sodium bromide solution (less than 50%) (*)	No change													
697	Sodium carbonate solution ↓ Sodium carbonate solution (*)		P ↓ S/P							Yes ↓ NF	O ↓ R		A ↓ No		↓ 15.19.6
698	Sodium chlorate solution (50% or less) ↓ Sodium chlorate solution (50% or less) (*)										O ↓ R				15.9 15.19.6 16.2.9 ↓ 15.9, 15.12, 15.19, 16.2.9
699	Sodium dichromate solution (70% or less)			2 ↓ 1	2G ↓ 1G	Open ↓ Cont						No ↓ T		No ↓ Yes	15.12.3 15.19 ↓ 15.12 15.17 15.18, 15.19
700	Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution		P ↓ S/P												
701	Sodium hydrogen sulphite solution (45% or less)		S/P ↓ P												
702	Sodium hydrosulphide / Ammonium sulphide solution ↓ Sodium hydrosulphide/Ammonium sulphide solution (*)												A ↓ AC		15.12 15.14 15.17 15.19 16.6.1~16.6.3 ↓ 15.12, 15.15, 15.17, 15.19, 16.6.1~16.6.3
703	Sodium hydrosulphide solution (45% or less) ↓ Sodium hydrosulphide solution (45% or less) (*)													No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.15, 15.19.6, 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
704	Sodium hydroxide solution ↓ Sodium hydroxide solution (*)										O ↓ C				16.2.6 16.2.9 15.19.6 ↓ 15.19, 16.2.6, 16.2.9
705	Sodium hypochlorite solution (15% or less)														15.19.6 ↓ 15.17, 15.19.6
706	Sodium methylate 21-30% in methanol ↓ Sodium methylate 21-30% in methyl alcohol														15.12 15.17 15.19 16.2.6 16.2.9 ↓ 15.12 15.17 15.19 16.2.6 (only if >28%) 16.2.9
707	Sodium nitrite solution			2 ↓ 3		Open ↓ Cont					O ↓ C	No ↓ T			15.12.3.1~15.12.3.2 15.19 16.2.9 ↓ 15.12.3, 15.12.4, 15.19, 16.2.6, 16.2.9
708	Sodium petroleum sulphonate					Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC	No ↓ Yes	15.19.6 16.2.6 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6
709	Sodium poly(4+)acrylate solutions		P ↓ S/P										A ↓ AC		
710	Sodium silicate solution		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	16.2.9 15.19.6 ↓ 15.12, 15.17, 15.19, 16.2.9
711	Sodium sulphate solutions		↓ S	↓ 3	↓ 2G	↓ Open	↓ No			↓ NF	↓ O	↓ No	↓ No	↓ No	↓ 16.2.9
712	Sodium sulphide solution (15% or less)													No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
713	Sodium sulphite solution (25% or less)		P ↓ S/P												
714	Sodium thiocyanate solution (56% or less)		P ↓ S/P							Yes ↓ NF					
715	Soyabean oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6, 16.2.6, 16.2.7, 16.2.9
716	Soybean oil fatty acid methyl ester ↓ Soybean Oil Fatty Acid Methyl Ester							- ↓	- ↓						

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
717	Styrene monomer										R ↓ C	F ↓ FT	AB ↓ ABC		15.13 15.19.6 16.6.1 16.6.2 ↓ 15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
718	Sulphohydrocarbon (C3-C88)												A ↓ ABC		
719	Sulpholane		P ↓ S/P										A ↓ AC		
720	Sulphur (molten) ↓ Sulphur (molten) (*)						Vent ↓ Vent or Pad (gas)								
721	Sulphuric acid			3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.11 15.16.2 15.19.6 ↓ 15.11 15.12 15.16.2 15.17 15.19 16.2.9
722	Sulphuric acid, spent			3 ↓ 2		Open ↓ Cont					O ↓ C	No ↓ T		No ↓ Yes	15.11 15.16.2 15.19.6 ↓ 15.11, 15.12, 15.16.2, 15.17, 15.19
723	Sulphurized fat (C14-C20)		P ↓ S/P										AB ↓ ABC		
724	Sulphurized polyolefinamide alkene (C28-C250) amine												A ↓ AC		
725	Sunflower seed oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
726	Tall oil, crude	No change													
727	Tall oil, distilled	No change													
728	Tall oil fatty acid (resin acids less than 20%)	No change													
729	Tall oil pitch		S/P ↓ P												15.19.6 16.2.6 ↓ 15.19.6 16.2.6 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
730	Tall oil soap, crude							- ↓	- ↓						
731	Tallow														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
732	Tallow fatty acid												A ↓ AC		15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
733	Tetrachloroethane														15.12 15.17 15.19.6 ↓ 15.12.3, 15.12.4, 15.19
734	Tetraethylene glycol												A ↓ AC		
735	Tetraethylene pentamine					Open ↓ Cont					O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19
736	Tetrahydrofuran											FT ↓ F	A ↓ AC		
737	Tetrahydronaphthalene		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
738	Tetramethylbenzene (all isomers)		P ↓ S/P										A ↓ ABC		
739	Titanium dioxide slurry									Yes ↓ NF			AB ↓ No		
740	Toluene		P ↓ S/P								R ↓ C	F ↓ FT	A ↓ AC		15.19.6 ↓ 15.12, 15.17, 15.19.6
741	Toluenediamine												AD ↓ ABC		15.12 15.17 15.19 16.2.6 16.2.9 ↓ 15.12 15.17 15.18 15.19 16.2.6 16.2.9
742	Toluene diisocyanate							T1 ↓ -	IIA ↓ -			FT ↓ T	AC(b)D ↓ ABC(b)D		15.12 15.16.2 15.17 15.19 16.2.9 ↓ 15.12 15.16.2 15.17 15.18 15.19 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
743	o-Toluidine												A ↓ ABC		
744	Tributyl phosphate		P ↓ S/P			Open ↓ Cont					O ↓ C	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
745	1,2,3-Trichlorobenzene (molten)			1 ↓ 2							C ↓ R		ACD ↓ ABC	Yes ↓ No	15.12.1 15.17 15.19 16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
746	1,2,4-Trichlorobenzene										R ↓ C		AB ↓ ABC		15.19 16.2.9 ↓ 15.12, 15.17, 15.19 16.2.9
747	1,1,1-Trichloroethane			3 ↓ 2									A ↓ ABC		
748	1,1,2-Trichloroethane					Cont ↓ Open					R ↓ O	T ↓ No			15.12.1 15.19.6 ↓ 15.19.6
749	Trichloroethylene							T2 ↓ -	IIA ↓ -	Yes ↓ NF	R ↓ C				
750	1,2,3-Trichloropropane			2 ↓ 3									ABD ↓ ABC		
751	1,1,2-Trichloro-1,2,2-Trifluoroethane	No change													
752	Tricresyl phosphate (containing 1% or more ortho-isomer)			1 ↓ 2				T2 ↓ -	IIA ↓ -			No ↓ T	AB ↓ ABC		15.12.3 15.19 16.2.6 ↓ 15.12, 15.17, 15.19, 16.2.6
753	Tricresyl phosphate (containing less than 1% ortho-isomer)					Open ↓ Cont					O ↓ C	No ↓ T	A ↓ ABC		15.19.6 16.2.6 ↓ 15.12, 15.17, 15.19.6, 16.2.6
754	Tridecane		P ↓ S/P										AB ↓ ABC		
755	Tridecanoic acid		P ↓ S/P										A ↓ ABC		

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
756	Tridecyl acetate		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
757	Triethanolamine					Open ↓ Cont			IIA ↓		O ↓ R	No ↓ T	A ↓ AC		16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
758	Triethylamine			2 ↓ 3							R ↓ C		AC ↓ ABC	Yes ↓ No	15.12 15.19.6 ↓ 15.12.3, 15.12.4, 15.19
759	Triethylbenzene		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
760	Triethylenetetramine					Open ↓ Cont		T2 ↓ -	IIA ↓ -		O ↓ C	No ↓ T	A ↓ AC	No ↓ Yes	15.19.6 ↓ 15.12, 15.17, 15.19, 16.2.9
761	Triethyl phosphate		P ↓ S/P										A ↓ AC		↓ 15.19.6
762	Triethyl phosphite												AB ↓ ABC		15.12.1 15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
763	Triisopropanolamine		P ↓ S/P										A ↓ AC		↓ 15.19.6, 16.2.9
764	Triisopropylated phenyl phosphates												A ↓ AC		
765	Trimethylacetic acid											No ↓ T	A ↓ AC		15.11.2~15.11.8 15.19.6 16.2.6 16.2.9 ↓ 15.11, 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
766	Trimethylamine solution (30% or less)										C ↓ R			Yes ↓ No	15.12 15.14 15.19 16.2.9 ↓ 15.12.3, 15.12.4, 15.14, 15.19.6
767	Trimethylbenzene (all isomers)		P ↓ S/P										A ↓ ABC		
768	Trimethylol propane propoxylated	No change													

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
769	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	Z ↓ Y	P ↓ S/P										AB ↓ ABC		↓ 15.19.6
770	2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate		P ↓ S/P										A ↓ ABC		
771	1,3,5-Trioxane										R ↓ C	F ↓ FT	AD ↓ AC		15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19.6, 16.2.9
772	Tripropylene glycol												A ↓ AC		
773	Trixylyl phosphate		P ↓ S/P	2 ↓ 1		Open ↓ Cont					O ↓ C	No ↓ T	A ↓ ABC		15.19.6 16.2.6 ↓ 15.12 15.17, 15.19.6, 16.2.6
774	Tung oil														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
775	Turpentine		P ↓ S/P					T1 ↓ T3				F ↓ FT	A ↓ AC		
776	Undecanoic acid		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		16.2.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.6, 16.2.9
777	1-Undecene		P ↓ S/P										A ↓ ABC		
778	Undecyl alcohol		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ ABC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
779	Urea/Ammonium nitrate solution	Z ↓ Y	P ↓ S/P							Yes ↓ NF			A ↓ No		↓ 15.19.6
780	Urea/Ammonium phosphate solution		P ↓ S/P			Open ↓ Cont					O ↓ R	No ↓ T	A ↓ AC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
781	Urea solution		P ↓ S/P										A ↓ AC		↓ 16.2.9

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
782	Used cooking oil (m)							- ↓	- ↓						
783	Used cooking oil (Triglycerides, C16- C18 and C18 unsaturated) (m) ↓ Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (m) (n)							- ↓	- ↓						15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
784	Valeraldehyde (all isomers)											FT ↓ F	A ↓ ABC		15.4.6 15.19.6 ↓ 15.4.6, 15.13, 15.19.6, 16.6.1, 16.6.2
785	Vegetable acid oils (m)														15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
786	Vegetable fatty acid distillates (m)		S/P ↓ P												15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
787	Vegetable oil mixtures, containing less than 15% free fatty acid (m)							- ↓	- ↓						15.19.6 16.2.6 16.2.9 ↓ 15.19.6 16.2.6 16.2.7 16.2.9
788	Vinyl acetate										R ↓ C	F ↓ FT	A ↓ ABC		15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
789	Vinyl ethyl ether				1G ↓ 2G						C ↓ R	FT ↓ F	A ↓ ABC	Yes ↓ No	
790	Vinylidene chloride										R ↓ C		B ↓ ABC	Yes ↓ No	15.13~15.14 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.14, 15.17, 15.19, 16.6.1, 16.6.2
791	Vinyl neodecanoate					Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19, 16.6.1, 16.6.2
792	Vinyltoluene										R ↓ C	F ↓ FT	AB ↓ ABC		15.13 15.19.6 16.6.1~16.6.2 ↓ 15.12, 15.13, 15.17, 15.19.6, 16.6.1, 16.6.2
793	White spirit, low (15-20%) aromatic		P ↓ S/P									F ↓ FT	A ↓ ABC		15.19.6 16.2.9 ↓ 15.12.3, 15.12.4, 15.19.6, 16.2.9
794	Wood lignin with sodium acetate/oxalate	No change													

Summary of Revised Carriage Requirements in Chapter 17

No.	a	c	d	e	f	g	h	i			j	k	l	n	o
								i'	i"	i"'					
795	Xylenes												A ↓ ABC		
796	Xylenes/ethylbenzene (10% or more) mixture		P ↓ S/P									F ↓ FT	A ↓ ABC		15.19.6 ↓ 15.12.3, 15.12.4, 15.19.6
797	Xylenol					Open ↓ Cont					O ↓ C	No ↓ T	AB ↓ ABC	No ↓ Yes	15.19.6 16.2.9 ↓ 15.12, 15.17, 15.19, 16.2.9
798	Zinc alkaryl dithiophosphate (C7-C16)												AB ↓ ABC		
799	Zinc alkenyl carboxamide		P ↓ S/P										AB ↓ ABC		
800	Zinc alkyl dithiophosphate (C3-C14)												AB ↓ ABC		

<Footnotes to products in chapter 17>

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

a If the product to be carried contains flammable solvents such that the flashpoint does not exceed 60°C, then special electrical systems and a flammable-vapour detector shall be provided.

b Although water is suitable for extinguishing open-air fires involving chemicals to which this footnote applies, water shall not be allowed to contaminate closed tanks containing these chemicals because of the risk of hazardous gas generation.

c Phosphorus, yellow or white, is carried above its autoignition temperature and therefore flashpoint is not appropriate. Electrical equipment requirements may be similar to those for substances with a flashpoint above 60°C.

d Requirements are based on those isomers having a flashpoint of 60°C or less; some isomers have a flashpoint greater than 60°C and therefore the requirements based on flammability would not apply to such isomers.

e Applies to n-decyl alcohol only.

f Dry chemical shall not be used as fire-extinguishing media.

g Confined spaces shall be tested for both formic acid vapours and carbon monoxide gas, a decomposition product.

h Applies to p-xylene only.

i For mixtures containing no other components with safety hazards and where the pollution category is Y or less.

j Only certain alcohol-resistant foams are effective.

k Requirements for Ship Type identified in *column e* might be subject to regulation 4.1.3 of Annex II of MARPOL.

l Applicable when the melting point is equal to or greater than 0°C.

m From vegetable oils, animal fats and fish oils specified in the IBC Code.

n Confirmation that the product is composed of Triglycerides, C16-C18 and C18 unsaturated shall be required in order for the entry to be used. Otherwise, the more generic entry "Used cooking oil (m)" must be used.

o Indicates that the entries are to be used solely for backloading of contaminated bulk liquids from offshore installations used in the search and exploitation of seabed mineral resources.

* Indicates that with reference to chapter 21 of the IBC Code (paragraph 21.1.3), deviations from the normal assignment criteria used for some carriage requirements have been implemented.

Summary of Revised Carriage Requirements in Chapter 18

No.	Product Name	Pollution Category
1	Acetone	No change
2	Alcoholic beverages, n.o.s.	No change
3	Apple juice	No change
4	n-Butyl alcohol	No change
5	sec-Butyl alcohol	No change
6	Calcium carbonate slurry	No change
7	Clay slurry	No change
8	Coal slurry	No change
9	Ethyl alcohol	No change
10	Glucose solution	No change
11	Glycerol ethoxylated	No change
12	Hydrogenated starch hydrolysate	No change
13	Isopropyl alcohol	No change
14	Kaolin slurry	No change
15	Lecithin	No change
16	Maltitol solution	No change
17	Microsilica slurry	No change
18	Molasses	No change
19	Noxious liquid, (11) n.o.s. (trade name ...., contains ....) Cat. Z	No change
20	Non noxious liquid, (12) n.o.s. (trade name ...., contains ....) Cat. OS	No change
21	Orange juice (concentrated)	No change
22	Orange juice (not concentrated)	No change
23	Potassium chloride solution (less than 26%)	No change
24	Propylene glycol	Z ↓ OS
25	Sodium acetate solutions	No change
26	Sodium bicarbonate solution (less than 10%)	No change
27	Sorbitol solution	No change
28	Sulphonated polyacrylate solution	No change
29	Tetraethyl silicate monomer/oligomer (20% in ethanol)	No change
30	Triethylene glycol	Z ↓ OS
31	Vegetable protein solution (hydrolysed)	No change
32	Water	No change